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ON LEARNING ORGANIZATION

# PROCEEDINGS

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## **Editorial**

It is with pleasure that I present the full papers of the 2014 International Seminar and Conference on Learning Organization (ISCLO).

Each paper represents a substantial contribution to the learning organization in all its defined forms, such as Corporate Learning, Corporate University, Leadership Pipeline, Global Competitiveness, Managing Diversity, Knowledge Management, Instructional Design System, and Learning Technology & Methodology. With such dynamic business environment, learning organization is required to anticipate any uncertain future. Companies are required to be able to enhance their business' excellence and sustainability. Learning organization means that the corporates should facilitate the learning process for all their members, including their stakeholders, and continuously make improvements. In addition, an organization is expected to learn collectively and continuously to obtain, organize and use knowledge for the success of the organization. Learning organization, furthermore, means empower people in and around it to build a sustainable competitive advantage.

As we all know that the ASEAN Economic Community (AEC) in 2015 is approaching. ASEAN Economic Community (AEC) will be the goal of regional economic integration by 2015. ASEAN Economic Community whose platform is similar to the European Economic Community (EEC) can be a serious threat to those who are not ready yet. Although the spirit behind the establishment of the AEC is to reduce poverty and economic disparities among the ASEAN member countries through a number of mutually beneficial cooperation, in practice, AEC will also trigger a frontal competition in the levels of nations, industries, companies, and even, up to the individual (labor).

The crucial issue of AEC is related to the movement of human capital which includes a group of highly skilled and have international certification. Those who have a license and certification can freely enter anywhere including Indonesian market. And vice versa, with their international certification, experts from Indonesia can freely take part in other ASEAN countries. This condition undoubtedly becomes a great threat to those who are less competent ; in contrast, it becomes great opportunities for those who are of global standards.

Like two sides of a coin, AEC could be a deadly threat and at the same time be a lucrative opportunity. AEC pushes us to let outsiders enter our markets, but it provides us the way to grab far greater and profitable opportunities. The implementation plan of the ASEAN Economic Community is not merely discussing the economic relations among the countries that predictably will be more widely open. Basically it is not only the country that has an intention in this case, but also the people in it. Globalization, undeniably, has made the national boundaries become blurred (borderless). Through AEC every individual would have equal opportunity to achieve something, to improve his/her welfare as well.

Overall, there is clear evidence of an emerging body of knowledge around learning organization. Presented in these proceedings are 66 papers. The conference had 79 papers submitted for review, and these proceedings therefore represent an 82% success rate upon review. The conference overall had 66 presentations delivered. These proceedings represent all presentations made at the conference.

Enjoy reading these proceedings and I hope that they contribute further to the advancement of ideas around work-integrated-learning and responding to the challenges of this space

**Sri Praptini Rahayu**  
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The ISCLO Conference 2014

## A proposed conceptual framework of corporate university

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### Abstract

The aim of this paper is to propose a conceptual framework for organising a corporate university. The background that motivates in writing this paper comes from the fact that, on the one hand, there is a growing interest among Indonesia's large corporates to establish corporate universities for strategically strengthening their performance through innovations. On the other hand, there is no clear guidance with regard to how the corporate needs to organise systematically such universities. The basic idea of this proposed framework is a corporate university needs to be organised in a way where knowledge can be utilised into innovations, which provide competitive advantages and revenues for the corporate. Furthermore, the framework provides guidance including basic principles and steps that suggestively need to be implemented when organising a corporate university.

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**Keywords:** corporate university, knowledge, innovation, learning organisation, knowledge management, innovation management.

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### 1. Introduction

Several large established state-owned corporate such as Telkom Indonesia and PLN have developed corporate universities (Sindo, 2013). These are universities that the students are the employees of those corporates. The present of such universities in Indonesia can be tracked back in 1990 when Telkom Institute of Technology was established (Telkom, 2013). It was followed by the establishments of other corporate universities by other corporations such as PLN and Pertamina. While it can be argued that the presents of such universities are taken for granted as an important factor for Telkom in gaining its positive performance, there is however no clear guidance what can be considered as a corporate university and how such a university needs to be organised. The aim of the paper is therefore to provide a conceptual framework of corporate university.

This paper is organised as follows. It starts by exploring the definitions of corporate university, which are then combined by providing some examples of corporate universities established by foreign (non-Indonesian corporate universities such as Mc. Donald). Before proposing a conceptual framework of corporate university, the paper explored theories that are relevant for the development of the conceptual framework.

### 2. On Corporate University

It is a typical that corporations have organisations that are responsible for providing training or educations. While such organisations play a critical role in developing corporates' performance, they however cannot be considered as corporate universities. Mark Allen (2002) provided definition of corporate university as “*an educational entity that is a strategic tool*

*designed to assist its parent organization in achieving its mission by conducting activities that cultivate individual and organizational learning, knowledge, and wisdom.”*

According to Pandey and Sharma (2010), a corporate university is typically characterised as follows. It is an organisation that is aimed to shift a business from solely learning oriented into learning that is followed by actions. The aim of the establishment is to achieve corporate excellence through developing their employees' performance and corporates' cultures that facilitate innovations. In more specific, the establishment of corporate universities is to achieve the following goals:

- Creating organisational culture, loyalty and sense of belonging to the corporate
- Developing and organising trainings
- Encouraging continuous learning
- Providing a significant amount of the investment for employee educations
- Contributing to the corporates' competitiveness
- Making efforts to maintaining the employees to be still in the corporation
- Initiating and supporting necessary changes in the corporations

Several multinational corporates such as Walt Disney, Boeing, Motorola and McDonald have established corporate universities.

### **3. Relevant literatures for developing a conceptual framework of corporate university**

It is argued in this paper that there are some literatures that can be relevant for developing a conceptual framework of corporate university. Those literatures are related to learning organisation, knowledge management and innovation management.

#### **▪ Learning Organisation**

Learning organisation can be defined as an organisation (e.g., corporate) that facilitates learning for its workers (Tjakraatmadja and Lantu, 2006). It is expected that such learning leads the organisation to remain competitive. For that, such an organisation needs to nurture cultures and provide facilities to make learning prospering. In a learning organisation, workers are expected to have spirits toward and skills for learning. Here the workers have willingness to learn independently and share their knowledge in their organisation. With such learning, it is expected that the workers' and organisation's knowledge are developed and rejuvenated so that the organisation becomes sustainably competitive and innovative (Tjakraatmadja and Lantu, 2006).

In a more systematic way, Peter Senge et al (1990) argues that a learning organisation is characterised by five elements, which are systems thinking, personal mastery, shared vision, mental model, and team learning. Shared Vision to create shared vision of learning targets, improvement strategies, and team/organisations goals. Mental Models determine the way people think and act, challenging each others' assumptions in order to build shared understanding. Personal Mastery is self-awareness on how much we know about ourselves and the impact our behaviour has on others.

Team Learning is 'thinking together', the power of sharing their experience, insights, knowledge and skills with each other about how to do things better. Systems thinking is a way of seeing the connections, links, or relationships between things that helps to uncover the connections, underlying assumptions, complex situation, and or invisible conditions with in organisation.

Practically, to be a learning organisation, it is in this paper argued that an organisation needs to create a climate where the employees trust to each other (Tjakraatmadja and Lantu, 2006). In such an organisation, it is also expected that the employees have mind-set and habits toward learning (Tjakraatmadja and Lantu, 2006). Facilities that ease learning need to be provided by the organisation. Such facilities may be in forms of such as library, internet connections, IT system, meeting rooms. Because to create a learning organisation requires a systematic approach at the level of organisation, as described above, it needs to be underlined that leaders' commitments play a critical role in the establishment of learning organisation.

## ▪ Knowledge Management

Knowledge Management (KM) can be defined as a systematic approach for managing (e.g., create, acquire, transfer/share and utilise) knowledge. It also includes an approach to provide relevant information/ knowledge for employees to facilitate them performing their tasks as being are expected (Tjakraatmadja and Lantu, 2006).

Knowledge can basically be categorised into two types, which are explicit and tacit (Polanyi, 1966). Explicit knowledge is a type of knowledge that is articulated in forms of such as printed documents (e.g., books, papers, and drawings), tools/ prototype, audio visual materials, or encoded in databases. Tacit knowledge is a type of knowledge that is not yet documented or materialised. It is still attached for example in individuals' minds. Because a task (e.g., product development) that is performed in an organisation typically involves more than one individual, it is challenging to communicate among the workers when involving tacit knowledge. Therefore, it is argued that some of individuals' tacit knowledge needs to be converted into explicit knowledge to ease such communications (Nonaka, 1995).

The KM literature typically presents and discusses three elements: People, Process, and Technology. When implementing KM, corporates tend to over emphasise on utilising technologies such as IT systems in their organisation. It is in this paper argued that while technologies may support the implementation of KM; nevertheless, corporates need to pay more attention on such as educating people on the implementation of KM. It is because people are the subjects of the KM implementation. Furthermore, the processes (ways, methods) on how knowledge is created shared and utilised need to carefully managed (Tjakraatmadja and Lantu, 2006) by the corporate.

## ▪ Innovation Management

Innovation management is a management on how to organise a process of innovation (Tidd and Bessant, 2009). In this context, innovation is defined as a new idea that has been implemented in a system (e.g., production system) or introduced in a market (Kelly and Kranzburg, 1978). Innovations can be in forms of such as product, process, and business model (Oslo Manual, 2005). Innovations can be driven by technology push or market pull. In a case where innovations are driven by technology (i.e., technology push), it is technology that determines for example the performance and attributes of a product (c.f., Pavitt, 1984; Brem,A. and Voigt,K-I., 2009). Customers are in a position to adopt the new product without strong involvements in the development process of the product. In a case where innovations are driven by market (market pull), the process of innovation is typically started by exploring customers'/ users' needs. It is customers'/ users' need that drive firms to produce products to meet the needs (cf., Lundvall, 1992). Whether it is a technology push or market pull, corporates expect that innovations can provide competitive advantages and economic growth (revenues) for the corporate (Drucker, 2012).

## **4. A Proposed Conceptual Framework of Corporate University**

As being presented above, literature defines Learning Organisation as an organisation that facilitates learning for their employees in order the organisation to be competitive. The literature on Knowledge Management typically focuses on knowledge creation, acquisition, sharing and utilisation. The literature on Innovation Management typically focuses on how such as new ideas, products and processes are developed and commercialised by corporates, through which the corporates gain competitive advantages and revenues. It is in this paper proposed a concept of corporate university by incorporating the concepts of Learning Organisation, Knowledge Management and Innovation Management. It is in this paper argued that a corporate university needs to be in a spirit in which knowledge is organised and capitalised by the corporate into innovations that can provide the corporate's competitive advantages and revenues.

A proposed conceptual framework of corporate university is depicted in Figure 1. To make a corporate university supporting the corporate delivering innovations, it is argued here that the university needs to have trust culture and learning habit as a foundation. Knowledge workers and learning facilities are the pillars to make the corporate becomes a learning

organisation. In a case where a corporate university that has become a learning organisation incorporates itself with Knowledge Management, it is in this paper argued that such an organisation potentially delivers innovations.

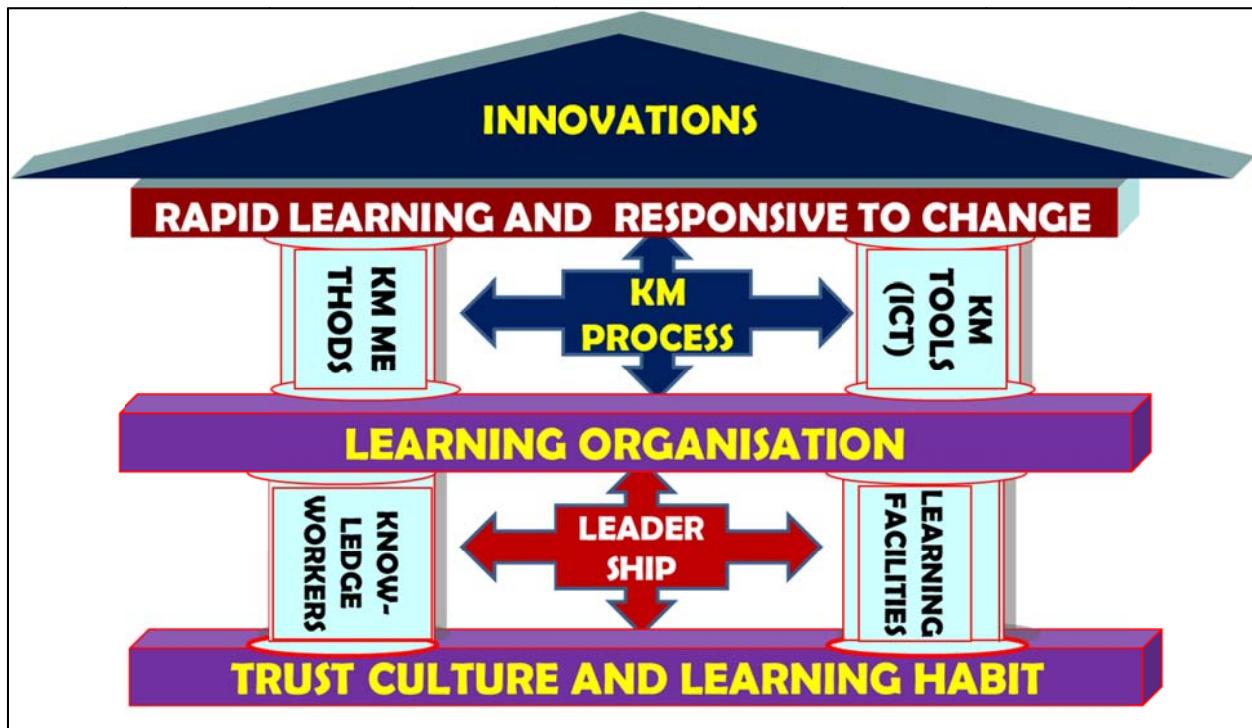


Figure 1: A proposed conceptual framework of corporate university

It is in this paper suggested that corporate university needs to be guided by the following principles (Meister, 1998):

- Top leaders' commitment

Top leaders' commitment is argued very important in the establishment of corporate university. The commitment can be expressed through sending a strong, explicit signal to employees that establishing corporate university is a priority for the organisation. Leaders must ensure in providing right people for the corporate university. Furthermore, leaders need to ensure that the selected people put activities related to the corporate university as a priority.

- Learning as the spirit

It is in this paper argued that corporate university needs to be an organisation where people with the organisation have learning spirit and skills, which learning is performed in a continuous basis. In such an organisation, learning can be conducted individually or performed in a group through knowledge sharing. Through such learning, (new) organisational knowledge can be created or rejuvenated, by which the organisation can strengthen its competitive advantages through sustainable innovation process.

- Knowledge workers

Knowledge workers can be considered as key sources of explicit and tacit knowledge. It is in the knowledge workers reside those two types of knowledge. Therefore, it is argued in this paper that managing properly the knowledge workers are essential because they are the most important and significant assets for organisations. It is particularly the case because the majority of knowledge is in a form of tacit knowledge rather than explicit knowledge (arguably 80% compared to 20%).

- Knowledge sharing

It is in this paper contended that corporate university requires stakeholders' commitments for using and sharing their knowledge. Knowledge sharing can be conducted through dialogues or conversations. It cannot be managed through

debates. It is argued that through dialogues, the involved people can appreciate the information/ knowledge conveyed, while in debates it is usually the involved people are in a position to defeat each other. Furthermore, it also needs to be underlined that the more an organisation knows of what its members know, the better the organisation can perform its task/ achieve its goal.

▪ People oriented (not a computer/ IT system oriented)

It is typical that organisation equalises corporate university to IT/ computer systems. It is however argued in this paper that when establishing a corporate university, organisation has to focus more on people rather than IT/ computer systems. Efforts toward the establishment of such a university need to be prioritized in developing the people with regard to both *soft skills* including value, culture and attitudes; and *hard skills* including specific knowledge and abilities for success in job. Besides focusing on the people, organisation also needs to develop systems that includes policy and procedures; and technology that includes such as computer and management information system.

▪ Knowledge stock and flow system

It is argued that organisation needs to stock knowledge and flow it through system. Learning process in an organisation can be managed to go through three phases, which are *learning before*, *learning during* and *learning after*. In the *learning before* phase, the organisation can assess explicit knowledge that is beneficial from external sources before use it for certain purpose/ task. By incorporating the external explicit knowledge to the task, the organisation may learn something new during the completion of the task. This can be considered as the *learning during* phase. By learning something new, it can be said that the organisation develops new knowledge, which latter can be shared among the employees. After the task has been performed, the organisation can reflect the process and try to find lessons-learnt. This can be categorized into the *learning after* phase.

▪ The creation of new knowledge and new value

The goal of corporate university needs to be aligned with the desired organisational performance/ results (e.g. the creation of a new product that offers a new value for users/ customers). The decision of the organisation on what new knowledge essentially needs to be developed in order to be able to create a new value has to be based on the evaluation what the organisation knows and what organisation must know if the organisation needs to create that new value. Besides evaluating the required knowledge to be created, the organisation also needs to decide what activities (e.g., product development) that need to be conducted through which the new knowledge can be created and utilised.

▪ Continuous efforts concerning Knowledge Management

It is in this paper contended that corporate university needs to continuously engage with Knowledge Management efforts. When Knowledge Management programme is firstly introduced by an organisation, employees may perceive either positively or sceptically. In case some of the employees have accepted the programme, they may contribute to the programme by recommending other employees to involve. When the employees have accepted and involved in the programme, it can be expected that knowledge sharing in the organisation is latter driven by personal motivations and beliefs. The individuals may then internalized the knowledge resulted from the knowledge sharing. When knowledge sharing is widely practiced in the organisation, it can be expected that knowledge is institutionalised in the organisation. If it has occurred, it can be said that knowledge management has been incorporated into the organisations' routines.

▪ Political agendas for getting supports and conducting collaborations

It is argued that the establishment of a corporate university involves a wide range of stakeholders. To get supports and conduct collaboration among the stakeholders, it is therefore important communicate and convince them. They may include the stakeholders from within the organisations such as the superordinate, colleagues and subordinates. There may involve the stakeholders from outside the organisation such as suppliers and customers that can contribute in creating values with regard to innovations. Furthermore, it is also important to communicate clearly about the benefits that the stakeholders may obtain. For that, developing criteria for measuring the benefits are then necessary.

## 5. Conclusion

This paper has introduced and discussed on a conceptual framework of corporate university. The concept has been developed by incorporating the concepts of Learning Organisation, Knowledge Management and Innovation Management.

The basic idea of the proposed framework is that a corporate university needs to be organised in a way where the knowledge creation, sharing and utilisation are managed by a corporate in order to leverage innovations. It is expected that such innovations provide competitive advantages and revenues for the corporate. Furthermore, the framework provides guidance concerning basic principles and steps that suggestively need to be implemented when organising a corporate university.

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## Analysis and Implementation of Information Security through Quality Standards ISO 27001 for Internet Services

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### Abstract

Nowadays, industry that focuses on information security is increasing. Internationally recognized ISO 27001 is a standard that is agreed upon to be a standard management of information security that is applied to the cross-industry. ISO 27001 not only emphasizes the security of information, but also the company's business processes. This study aims to determine the management of the implementation of the security standards for providing information at PT. Telkom internet services that uses the ISO 27001 standard as a case study. This study used qualitative methods to conduct observations and interviews. The results showed that the threats and security risks that occurred when PT. Telkom provided internet information and was attacked by many kinds of hacking types and duration of different attacks. Government website attacks were highlighted at the General Elections Commission (KPU), these attacks violated the security aspects of information, so that it needs recovery and appropriate treatment. Therefore, the recommendations that can be given in this research, is to improve the implementation of information security standard for the internet service of PT. Telkom.

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*Keywords:* Information security; ISO 27001; internet services; security network: quality standard

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### 1. Introduction

Over the past few years, the increase in the use of technology and the rise in interconnected systems and networked environment, data and information have made the enterprises try to implement IT service management standards in order to provide better IT services to their users and clients for better support in their strategic organizational goals. At the same time, the increased use of technology is now being exposed to a rising number of threats and vulnerabilities. Therefore, it has become a necessity for an organization to have an efficient information security management system. [1].

Safety standard adoption that related was initiated in a variety of reasons such as the desire to reach a wider market, according to the applicable regulations, or awareness of the importance of information security management for internal enterprise. ISO 27001 that is agreed as standard management information security is applied to the cross-industry and recognized internationally. One of the local regulation of the banking industry, Bank Indonesia Regulation (PBI) 9/15/2007 requires PBI Data Center and or DRC is located in the country. It encourages so many service providers Data Center and Data Recovery Center locally, such as Biznet, Telkom Sigma, CBN, IDC, CSM, Lintasarta, Omadata, Collega, Indosat, Visionet, and others. This standard was applied to the providing Internet services division who managed IP Security Network and Services PT. Telkom, to support the business process and to make sure how the information security infrastructure was managed so that the internet services can be provided to customers with fast quality data access and free from distractions. The necessity to ensure data and information is essential for the company, especially PT. Telkom as one

state-owned telecommunications company that provides Internet provider for corporate companies which require security information when performing transactions and access data using the Internet VPN-IP services and Metronet as services of PT. Telkom. Enterprises that become customers of Telkom were aware that when they are using services from Telkom, what they need is warranted data security and data transaction services and it needs a guaranteed, so PT. Telkom has the initiative to be certified as ISO 27001 as a requirement for information security standard.

## **2. Method**

### *2.1. Qualitative Method*

This study used qualitative methodology to analyze the implementation of information security standard through ISO 27001. Kirk and Miller quoted in Moleong [2] defined that qualitative study is a particular tradition in social science which fundamentally depends on human observation towards their own field pertaining to the people within the field and their own terms. The aims of qualitative study was in line with the research questions since the aims of descriptive qualitative study is to answer what has been explained in the research questions.

### *2.2. Descriptive Method.*

The aim of descriptive qualitative study is to decide on how to manage the result of a study by making the analysis units through qualitative descriptive research method. The research method used in this thesis was descriptive method, namely by finding facts through proper interpretation. Data collection method that is used involved primary data including structural interview, nonparticipant observation as well as secondary internal data from a company [3]. The results were categorized according to the interview questions and grouped into the formulation of research problems that had been defined previously, as well as the results of observations for the exploration such as an interview and supporting documents research results.

### *2.3. Model Control ISO 27001*

ISO/IEC 27001 is an information security management system (ISMS) standard published by The International Organization for Standardization (ISO) and international electrotechnical commission (IEC) [4]. The improvement and further development of the International Security Management System (ISMS) is to be implemented continuously, based on the security policy, the logging and evaluation of operations, the results of testing as well as the results from improvement measures. In addition the improvement and further development should be pushed forward through regular internal audits. Adequate implementation of the security policy as well as its suitability and completeness are to be assured through annually management reviews [5]. Table 1 shows the control objectives ISO 27001 that must be implemented through standard.

Table 1. Model Control of ISO/IEC 27001 [5]

Domain	Control objectives
Security policy	To provide management direction and support for information security in accordance with business requirements and relevant laws and regulations.
Organization of information security	To manage information security within the organization To maintain the security of the organization's information and information processing facilities that are accessed, processed, communicated to, or managed by external parties.
Asset management	To achieve and maintain appropriate protection of organizational assets.
	To ensure that information receives an appropriate level of protection.
Human resources security	To ensure that employees, contractors and third party users understand their responsibilities, and are suitable for the roles they are considered for, and to reduce the risk of theft, fraud or misuse of facilities.
	To ensure that all employees, contractors and third party users are aware of information security threats and concerns, their responsibilities and liabilities, and are equipped to support organizational security policy in the course of their normal work, and to reduce the risk of human error.
	To ensure that employees, contractors and third party users exit an organization or change employment in an orderly manner
Physical and environmental security	To prevent unauthorized physical access, damage and interference to organization's premises and information. To prevent loss, damage, theft or compromise of assets and interruption to the organization's activities.
Communications and operations management	To ensure the correct and secure operation of information processing facilities. To implement and maintain the appropriate level of information security and service delivery in line with third party service delivery agreements To minimize the risk of systems failures. To protect the integrity of software and information. To maintain the integrity and availability of information and information processing facilities. To ensure the protection of information in networks and the protection of the supporting infrastructure. To prevent unauthorized disclosure, modification, removal or destruction of assets, and interruption to business activities. To maintain security of information and software exchanged within an organization and with external entities. To ensure the security of electronic commerce services, and their secure use. To detect unauthorized information processing activities. To control access to information.
Access control	To ensure authorized user access and to prevent unauthorized access to information systems. To prevent unauthorized user access, compromise or theft of information and information processing facilities. To prevent unauthorized access to networked services. To prevent unauthorized access to operating systems. To prevent unauthorized access to information held in application systems. To ensure information security when using mobile computing and teleworking facilities. To prevent unauthorized access to networked services. To control access to information.
Information systems acquisition, development and maintenance	To ensure authorized user access and to prevent unauthorized access to information systems. To prevent unauthorized user access, compromise or theft of information and information processing facilities. To prevent unauthorized access to networked services. To prevent unauthorized access to operating systems.
Information systems acquisition, development and maintenance	To ensure that security is an integral part of information systems. To prevent errors, loss, unauthorized modification or misuse of information in applications. To protect the confidentiality, authenticity or integrity of information by cryptographic means.

	To ensure the security of system files.
	To maintain the security of application system software and information.
	To reduce risks resulting from exploitation of published technical vulnerabilities.
Information security incident management	To ensure information security events and weaknesses associated with information systems are communicated in a manner allowing timely corrective action to be taken.
	To ensure a consistent and effective approach is applied to the management of information security incidents.
Business continuity management	To counteract interruptions to business activities and to protect critical business processes from the effects of major failures of information systems or disasters and to ensure their timely resumption.
Compliance	To avoid breaches of any law, statutory, regulatory or contractual obligations, and of any security requirements.
	To ensure compliance of systems with organizational security policies and standards.
	To maximize the effectiveness of and to minimize interference to/from the information systems audit process.

### 3. Results and discussions

#### 3.1. ISO 27001 implementation

The implementation of information security standard especially ISO 27001 at PT. Telkom can be clearly seen in IP Security Network and Services section since the operational for security of internet provider is managed by this section. Table 2 show some findings taken from internal audit towards the implementation of ISO 27001.

Table 2. Internal audit ISO 27001 result

No.	Section	Location	Clausal	Finding
1.	Jabar lembong	NMS Diva Room	A.11	MSAN set, paper recording user name and password
2.	Jabar lembong	NMS Diva Room	A.11.	Unlocked shelves
3.	Jabar lembong	NMS Diva Room	A.9.	Leak above DSLAM collected in water gutter
4.	Jabar lembong	NMS Diva Room	A.9.	No Security Post Unlocked door
5.	Jabar lembong	Trunk GW Room	A.10	Attached configuration chart
6.	Jabar lembong	Trunk GW Room	A.11	Unlocked shelves
7.	Jabar lembong	NGN Room	A.6	NoLog Book
8.	Jabar lembong	Division	A.11	No first UAR
9.	Jabar lembong	Division	A.6	No telepon numbers of third parties as OLO, DJPT, Divisi Lain, Vendor etc, No note on DRP Infratel document
10.	Jabar lembong	Division	A.10	No procedure on how to secure interconnected configuration chart
11.	Jabar lembong	NGN Room	A.11	PC in software room has no screen saver equipped with password
12.	Jabar lembong	Trunk GW Room	A.6	No Log Book
13.	Jabar lembong	NGN Room	A.11	Unlocked shelves
14.	Jabar lembong	Division	A.11	The character numbers and combination of letters and numbers should be in accordance with KD57
15.	Jabar lembong	Collocation Room	A.9	1. Fiber Driver, Portion Adaptor and Spare Cable was arranged disorderly, potential for mechanic and electric problems

No.	Section	Location	Clausal	Finding
16.	Jabar lembong	Collocation Room	A.11	2. Power and data cable are still in 1 1 tray

Table 3. IP Addresses attacked

SEVERITY	SIZE	THRESHOLD	STATUS	TIME	DURATION	TYPE	REMARK	TYPE ATTACK	RESOURCE	RESOURCE IP
Yellow	55.83 Kpps	over 20.00 Kpps	Recovered	07-15 00:00 to 07-15 00:04	4 mins	Incoming	Protocol Misuse	TCP SYN Flooding	Non-Home	192.126.122.81
Yellow	2.29 Kpps	over 2.00 Kpps	Recovered	07-15 00:00 to 07-15 00:06	6 mins	Outgoing	Application Anomaly	TCP PORT SCAN	Telkomsel	114.127.220.200
Yellow	2.10 Kpps	over 2.00 Kpps	Recovered	07-15 00:01 to 07-15 00:07	6 mins	Outgoing	Application Anomaly	TCP PORT SCAN	Telkomsel	114.127.220.252
Yellow	2.03 Kpps	over 2.00 Kpps	Recovered	07-15 00:02 to 07-15 00:08	6 mins	Outgoing	Application Anomaly	TCP PORT SCAN	Telkomsel	114.127.220.160
Yellow	2.10 Kpps	over 2.00 Kpps	Recovered	07-15 00:02 to 07-15 00:10	8 mins	Outgoing	Application Anomaly	TCP PORT SCAN	Telkomsel	114.127.220.162
Yellow	2.23 Kpps	over 2.00 Kpps	Recovered	07-15 00:03 to 07-15 00:09	6 mins	Outgoing	Application Anomaly	TCP PORT SCAN	Telkomsel	114.127.220.234
Yellow	2.05 Kpps	over 2.00 Kpps	Recovered	07-15 01:25 to 07-15 01:31	6 mins	Outgoing	Application Anomaly	TCP PORT SCAN	Telkomsel	114.127.220.151
Yellow	2.12 Kpps	over 2.00 Kpps	Recovered	07-15 01:25 to 07-15 01:31	6 mins	Outgoing	Application Anomaly	TCP PORT SCAN	Telkomsel	114.127.220.160
Yellow	2.13 Kpps	over 2.00 Kpps	Recovered	07-15 01:27 to 07-15 01:33	6 mins	Outgoing	Application Anomaly	TCP PORT SCAN	Telkomsel	114.127.220.145
Yellow	2.00 Kpps	over 2.00 Kpps	Recovered	07-15 01:28 to 07-15 01:39	11 mins	Outgoing	Application Anomaly	TCP PORT SCAN	Telkomsel	114.127.220.173
Yellow	2.07 Kpps	over 2.00 Kpps	Recovered	07-15 01:29 to 07-15 01:35	6 mins	Outgoing	Application Anomaly	TCP PORT SCAN	Telkomsel	114.127.220.228
Red	35.48 Kpps	over 20.00 Kpps	Recovered	07-15 01:30 to 07-15 01:50	20 mins	Incoming	Protocol Misuse	TCP SYN Flooding	Non-Home	119.188.132.73
Yellow	2.00 Kpps	over 2.00 Kpps	Recovered	07-15 01:31 to 07-15 01:37	6 mins	Outgoing	Application Anomaly	TCP PORT SCAN	Telkomsel	114.127.220.198
Yellow	2.36 Kpps	over 2.00 Kpps	Recovered	07-15 01:32 to 07-15	6 mins	Outgoing	Application Anoma	TCP PORT SCAN	Telkomsel	114.127.220.151

01:38										ly
Yello w	2.07 Kpps	over 2.00 Kpps	Recove red	07-15 01:33 to 07-15 01:39	6 mins	Outgoi ng	Applic ation Anoma ly	TCP PORT SCAN	Telko msel	114.127.220.206

Table 2 has some findings that should be followed up pertaining to the implementation of information security standard. Some of actions towards the findings can be taken in accordance with the objective controls stated in ISO 27001 especially for a certain rooms such as NGN (Next Generation Network) that there are still frequent cases that it needs to be followed up in order to maintain the information security in the division.

In ISO 27001, there are some groups of clause which controls the implementation of information security including clausal A.11 on physical security of computer information asset. The implementation of clausal A.11 on the information asset security physically can be seen in center data room, server room at STO Lembong Bandung. All security standard physically has been well implemented, reflected from the availability of SOP in security by security officers, log book recording those who enter to and exit from the server room, fingerprint or card so that there are only authorized personnel who can enter the server room. Those who are going to enter the room, however, have to be accompanied by officers. Server room itself has been equipped with humidity control equipment, coolers, fire extinguishers, and CCTVs. Cable management and raised floor system are also implemented so that cables are installed neatly. The information standard has not been implemented either in all rooms or in STO offices since it still needs some material and non-material readiness. Therefore, the control has not been fully applied in all STO offices at PT. Telkom. In accordance with the policies, there are eight telecommunication areas of which information system have been ensured or certified by ISO 27001. Objective control A.13 pertaining to communication security is clearly reflected in the monitoring process towards IP Address on internet service of PT. Telkom and monitoring to packet data transaction. The monitoring itself is conducted within work hours. If there is any trouble such as an attack that hit *Komisi Pemilihan Umum* (KPU) website, there will be 24 hour monitoring shifts or monitoring center, which is carried out conditionally. Furthermore, it also has vulnerability testing and security action towards software used as well as computer security so that they can prevent virus and malware attacks. All of them have been implemented and can be clearly revealed in IP Security Network and Services.

Securing information system resources is extremely important. It is imperative for organizations to use an information security management system (ISMS) to effectively manage their information assets. ISMS is basically consist of sets of policies put place by an organization to define, construct, develop and maintain security of their computer based on hardware and software resources. These policies dictate the way in which computer resources can be used [6].

### 3.2. Internet service problem and attacks

The field of information security has grown and evolved in recent years because of the rapid growth and widespread use of electronic data processing and electronic business conducted through the Internet and other computer networks [7]. Via internet infrastructure, hosts can not only share their files, but also complete task cooperatively by contributing their computing resources. Moreover, an end hosts can easily join the network and communicate with any other host by changing packets [8]. UDP is a connectionless protocol and it does not require any connection setup procedure to transfer data. A UDP Flood Attack is possible when an attacker sends a UDP packet to a random port on the victim system. When the victim system receives a UDP packet, it will determine what application is waiting on the destination port. When it realizes that there is no application that is waiting on the port, it will generate a packet of destination unreachable to the forged source address. If enough UDP packets are delivered to ports on victim, the system will go down [7]. Table. 3 explains the record captured by monitoring consisting some IP Addresses attacked, kind of attacks and the duration below:

In UDP flood attack attacker sends large number of UDP packets to a **victstim** system, due to which there is saturation of the network and the depletion of available bandwidth for legitimate service request to the victim systems [8].

Problems and attacks that recently hit the security system was the attack from hackers to *Komisi Pemilihan Umum* (KPU) can be seen at Table 4. Record attack of KPU site below:

Table 4. Record attack of KPU site

SEVERITY	SIZE	THRESHOLD	STATUS	TIME	DURATION	TYPE	REMARK	TYPE ATTACK	RESOURCCE	RESOURCE IP
Red	706.70 Mbps	over 200.00 Mbps	Recovered	07-10 17:02 to 07-10 17:48	46 mins	Incoming	Protocol-Misuse	UDP Flooding	Telkom IP Transit	103.21.228.212
Red	691.48 Mbps	over 200.00 Mbps	Recovered	07-10 17:52 to 07-10 18:14	22 mins	Incoming	Protocol-Misuse	UDP Flooding	Telkom IP Transit	103.21.228.212
Red	703.97 Mbps	over 200.00 Mbps	Recovered	07-10 18:15 to 07-10 18:27	12 mins	Incoming	Protocol-Misuse	UDP Flooding	Telkom IP Transit	103.21.228.212
Red	693.71 Mbps	over 200.00 Mbps	Recovered	07-10 18:28 to 07-10 18:40	12 mins	Incoming	Protocol-Misuse	UDP Flooding	Telkom IP Transit	103.21.228.212
Yellow	10.25 Kpps	over 10.00 Kpps	Recovered	07-10 18:38 to 07-10 18:43	5 mins	Incoming	Protocol-Misuse	TCP RST Flooding	Telkom IP Transit	103.21.228.212
Yellow	12.37 Kpps	over 10.00 Kpps	Recovered	07-10 19:18 to 07-10 19:21	3 mins	Incoming	Protocol-Misuse	TCP RST Flooding	Telkom IP Transit	103.21.228.212
Red	688.02 Mbps	over 200.00 Mbps	Recovered	07-10 19:21 to 07-10 19:55	34 mins	Incoming	Protocol-Misuse	UDP Flooding	Telkom IP Transit	103.21.228.212
Red	693.26 Mbps	over 200.00 Mbps	Recovered	07-10 20:12 to 07-10 21:28	1 hour 16 mins	Incoming	Protocol-Misuse	UDP Flooding	Telkom IP Transit	103.21.228.212
Red	688.36 Mbps	over 200.00 Mbps	Recovered	07-10 21:41 to 07-10 23:02	1 hour 21 mins	Incoming	Protocol-Misuse	UDP Flooding	Telkom IP Transit	103.21.228.212
Red	677.73 Mbps	over 200.00 Mbps	Recovered	07-10 23:03 to 07-10 23:27	24 mins	Incoming	Protocol-Misuse	UDP Flooding	Telkom IP Transit	103.21.228.212

Red	603.61 Mbps	over 200.00 Mbps	Recovered	07-11 00:27 to 07-11 00:51	24 mins	Incoming	Protocol-Misuse	UDP Flooding	Telkom IP Transit	103.21.228.212
Red	695.29 Mbps	over 200.00 Mbps	Recovered	07-11 01:47 to 07-11 01:58	11 mins	Incoming	Protocol-Misuse	UDP Flooding	Telkom IP Transit	103.21.228.212
Red	746.18 Mbps	over 200.00 Mbps	Recovered	07-11 02:46 to 07-11 02:58	12 mins	Incoming	Protocol-Misuse	UDP Flooding	Telkom IP Transit	103.21.228.212

Table 4 shows the record of website attack that was started from Thursday, July 10, 2014, one day after the presidential election using PT. Telkom service network. The following day, KPU website had some flooding and could not be accessed. Thus, there were many users who complained on this that they could not access information as for scanning the result and the election real count. To handle this case, IP Security Network and Services did some corrective actions by building a center in monitoring traffic of packages addressed to KPU IP Address as well as monitoring traffic on other sites within 24 hours until July 22, 2014, when the election result was legally released by *Badan Komisi Pemilihan Umum*. From table 4 the KPU site had approximately thirteen attacks since July 10, 2014. The monitoring showed that there were some attacks that made KPU site could not be accessed. The longest attack was noted to be an hour attack and it was directly followed up by Telin Indonesia. Table 4 shows the record of monitoring result for the IP Address of Komisi Pemilihan Umum (KPU). This kind of attack is very vulnerable happened to KPU site since KPU site needs data package and information that include some result that is dangerous for information service, the longest attack for an hour clearly made the site failed to be accessed. It can be concluded that KPU site was mostly attacked by UDP Flooding.

Therefore, there should be some monitoring towards IP Address passing through internet services at PT. Telkom or some alarm installations as well as notification towards more than one hour attacks. However, the monitoring that is conducted to the present time has not been equipped with tools such as alarm and notification that can remind long attacks.

Result from this ISO 27001 study has been implemented properly in PT. Telkom. ISMS is an approach to protecting and managing data based on a systematic method to establish, implement, operate, monitor, review, maintain, and improve of information security. The steps of establishing ISMS explained as: defining the scope, planning, ISMS policies, risk assessment, risk treatment, selecting the management controls and preparing statement of applicability (SoA) by establishing the relevance between the securities of information in this case the internet service with possible threats and appropriate information security standards, we have set the foundation for future research. The effectiveness of ISO 27001 is preventing or minimizing the exposure to information security incidents in the real world. In a scenario where there has been so much investment in adopting the framework and subsequent certification resulting in high levels of stakeholder assurance, the focus is to identifying the areas where it is effective. But more importantly, it also focuses on the areas where there are gaps, leading to information security risks and/or an incident even in a situation where the framework is adhered to and certification against it exists [9].

Plans to adopt ISO 27001 must be supported by a concrete business analysis that involves listing the primary business objectives and ensuring a consensus is reached by key stakeholders. Business objectives can be derived from the company's mission, strategic plan, and existing IT goals and may include: ensuring effective risk management, such as identifying information assets and conducting accurate risk assessments, and maintaining the company's competitive advantage. Moreover, if the industry as a whole deals with sensitive information , the objectives can be derived by preserving the organization's reputation and standing among industry leaders, providing assurance to customers and partners about the organizations commitment to protecting data, increasing the company's revenue, profitability, and savings in areas where protective controls operate well [10].

#### **4. Conclusion**

Generally, the implementation of information security standard through ISO 27001 at PT Telkom can be seen especially in IP Security Network and Services section. The implementation of the ISO 27001 information security standard is either in accordance with director board's decision or in order to have some added values for the company in the competition and to ensure all costumers of Telkom internet service provider.

The implementation of ISO 27001: 2013 security standards at PT Telkom has been well conducted and can be seen obviously on security points either physically or logically. The objective control in ISO 27001 has been well implemented. It can be seen on the business process at IP Security Network and Services section. Most of PT. Telkom internet service of which the information security has been ensured are internet service corporate customers including Astinet, VPN-IP and Metro. Customers need good quality of internet service without any cut to support their business, including communication and private data package delivery.

Problems and attacks that hit the PT. Telkom internet provider include UDP Flooding that had once attacked Komisi Pemilihan Umum (KPU) for few days in uncertain time caused some access failure towards the site. UDP Flooding is a connection less attack, which neglected the delivery of a package whether it can be received or not since the system is flooded with useless characters.

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# Analysis on Prediction of e-procurement Adoption using Technology Acceptance Model (TAM) in SMEs

## (Case Study in *Sentra Sablon Suci* Bandung in 2014)

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## Abstract

The purpose of this research is to predict the adoption of e-procurement through integrated construction of Technology Acceptance Model (TAM). In this study the method used was the descriptive causal method involving 220 people as respondents in the study sample with judgment sampling technique. The data analysis technique used is Structural Equation Model (SEM). The variables studied were ease of use (EOU), perceived usefulness, attitude toward using, and intention to use e-procurement. Based on the results, the study concludes: (i) the overall TAM variables in this study, which are EOU, perceived usefulness, attitude toward using, and intention to use e-procurement, are in good categories, (ii) the ease of use has positive effect on perceived usefulness, (iii) the ease of use and perceived usefulness simultaneously have positive effect on attitude toward using, (iv) the perceived usefulness and attitude toward using have positive effect on intention to use e-procurement, (vi) overall, this study resulted that TAM is not a good predictor of the adoption of e-procurement in *Sentra Sablon Suci* Bandung.

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**Keywords:** E-Procurement, TAM (Technology Acceptance Model), SEM (Structural Equation Model), SMEs (Small Medium Enterprises)

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## 1. Introduction

The number of MSMEs (Micro, Small and Medium Enterprises) in Indonesia has increased from year to year. This significantly relates with the role of SMEs which are considered to absorb labor and its contribution to the Indonesia economy. The government includes a party that continues to expand business activities in the form of these SMEs, including in the government of Bandung city. One of the ways is by developing industrial centers in the Bandung city. *Sentra Sablon Suci* Bandung industrial center is considered to be very potential because it is one of the industrial centers that have a very large investment value.

The use of technology in operational activities of SMEs today is a must. One of the technologies that can be used easily by SMEs is the internet. One of the internet applications which can be used as the potential to be utilized for the SMEs is e-procurement. This is the background of the author to do research on the prediction of e-procurement adoption in *Sentra Sablon Suci* Bandung using the approach of Technology Acceptance Model (TAM).

## 2. Theoretical Framework, Previous Research, Methodology, and Hypothesis

### 2.1 Supply Chain Management

Supply chain management is a systematic, strategic coordination of the traditional business functions within a particular company and across business within the supply chain for the purpose of improving long-term performance of the individual company and the supply chain as a whole. [1]

There are some key activities that fall into the classification of SCM in the context of manufacturing, they are:

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- a. Product design activities (product development)
- b. Activities to obtain raw materials (procurement, purchasing, or supply)
- c. Production and inventory plan (planning & control)
- d. Activities of production (production)
- e. Activities of delivery / distribution (distribution)
- f. Management activities returning products / goods (return) [1]

## 2.2 Procurement Management

Procurement Management is part of the Supply chain management, in which the systematic and strategic procurement processes from the sourcing of goods to the appropriate destination are based on the quality, quantity, price, time, source and place in order to meet customer needs. [2]

Procurement Management acts as systematic process of determining what (specification, quality), when (schedule, delivery time), how (the source system), and how much (quantity) for procuring goods and services from the procurement till the source to be delivered to the destination after checking the quality and quantity, the optimal cost, and of supplying a reasonable time to meet the needs. [2]

## 2.3 E-Business

E- business is the use of electronic networks (internet) and associated technologies to enable, improve, enhance, transform, or invent a business process or business system to create superior value for current or potential customers.[3]

The forms of e-business relationships can be divided into two, they are business to business (b2b) and business to customer (b2c)

## 2.4 E-Procurement

Electronic procurement (e-Proc) is the procurement of goods and services using electronic networks (internet or intranet network) or electronic data interchange (EDI). [2]

The implementation of e-procurement itself can take many forms. For example, buying process using internet technology can be done in two forms; directly to suppliers via its website or with a special application provided by the company that makes the application of the e-procurement. [3]

## 2.5 Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is one of the theories that explain the technology acceptance model approach. TAM itself was originally introduced by Davis in 1985, and then he improves the TAM model by adopting the model developed by TRA acceptance Azjen (1975) in 1989. [4]

Along with the times, many researchers were trying to modify the TAM model by adding some additional determinants into TAM as desired by researchers. [5]

Perceived ease of use is defined as the degree to which a person believes that using the system can be free of mental effort, whereas perceived of usefulness is defined as the degree to which a person believes using the system can improve the performance. Based on TAM, these two elements affect one's attitude in using the system that measures the level of behavioral intention, which would lead to the use of the system. [6]

## 2.6 Previous Research

There are several previous researches that are used as reference in this study. This research, among others, has first been conducted by Charlesto Sekundera in 2006 with the title "Analysis of End User Acceptance By Using The Technology Acceptance Model and End User Computing Satisfaction of the Implementation of Core Banking System In ABC Bank ". The result of the researches that are using TAM model with variable usefulness and ease of use has proven to affect the acceptance of the core banking system. By using the model of end user computing satisfaction (EUCS), it can be concluded that the variable accuracy, ease, and timeliness can affect the acceptance of the core banking system. However, the variables content and form do not affect the demand of core banking system at ABC Bank. [7]. The next research was made by Regina Eka in 2007, entitled "Analysis Adoption of M-Banking Services by Bank Customers in Bandung in 2007 Using Technology Acceptance Model Approach (TAM)". The result shows that the adoption of m-banking services in the

Bandung city is affected by all the variables of TAM, namely perceived usefulness, perceived ease of used, economic sacrifice, attitude toward using, behavior intention, and actual use [8]. Further research was made by Aboelmaged in 2010 with the title "Predicting e-procurement Adoption in a Developing Country (An Empirical Integration of Technology Acceptance Model and Theory of Planned Behavior)". The result shows that the proposed model has good explanatory power and confirms its robustness, with a reasonably strong empirical support in predicting users' intentions to use e-procurement technology. Behavioral intention toward e-procurement technology is mainly determined by user's attitude and is additionally influenced by perceived usefulness and subjective norm [6]. Next is the research by Rahmat Khafidin in 2013 entitled "Identification of The Factors Usage CIMB Mobile Banking Services of Customers in Bandung City". The results show that TAM factors are based on the development after the testing are grouped into three factors: content factor, risk factor, and time efficiency factor. Based on the dominant factors, the sequence is content factor, risk factors, time efficiency factor [5]. The last research was conducted by Boumediene Ramdani in 2013 with the title "SME's Adoption of Enterprise application A technology-organization-environment models". The result indicates that technology, organization, and environment contexts have impacts on the SMEs' adoption of EA (Enterprise Application). This suggests that the TOE models are indeed a robust tool to predict the adoption of EA by SMEs [9].

In this research, the object that is used is the SME's when the acceptance of new technology is usually used for big companies. When technology has been decided to be implemented, it has many challenges even for big companies. However, this research tries to discover the relation of technology, especially e-procurement, to the users who are the SME's. In this research, the model used is SEM model that is proved to be one of the best methods.

## **2.7 Research Model**

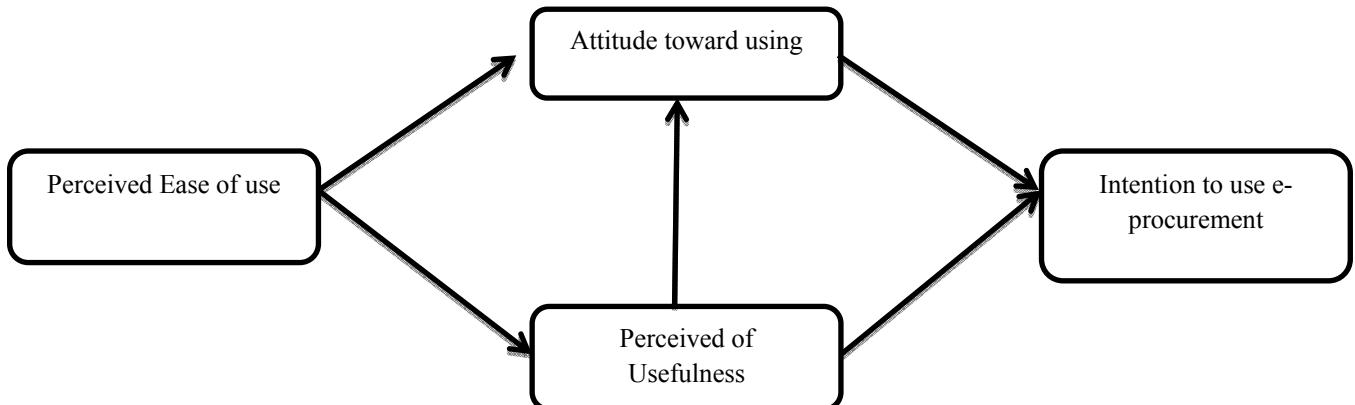


Fig. 1. Research Methodology [6]

## **2.8 Research Methodology**

In this research the method used is the descriptive causal method. The research also involved 220 people as the respondents in the study sample with judgment sampling technique. The data analysis technique used was a Structure Equation Model (SEM). Variables studied in this research that were exogenous variables are ease of use (EOU), and there are three endogenous variables; perceived usefulness, attitude toward using, and intention to use e-procurement.

The measurement scale used in this research is the scale intervals using a Likert scale with five technical criteria ranging from strongly disagree to strongly agree. The populations in this study performed in 2012 were 409 business people in *Sentra Sablon Suci* Bandung who do not use e-procurement in their operations. The samples of 220 people were encouraged to follow the provisions on data analysis techniques that were required by Structural Equation Modeling. The number of respondents was coupled with a minimum of 200 respondents, whereas 20 people were assumed not to give back the questionnaire by 10 percent. The sampling technique was done with the approach of nonprobability judgment sampling.

## 2.9 Operationalization of the Variables

Table 1. Operationalization of Variables

No.	Variable	Items of Questionnaire
1	Attitude toward using	Using e-procurement technology is a good idea (X1)
		Using e-procurement technology would be a wise idea (X2)
		Using e-procurement technology in procurement is pleasant (X3)
		It is desirable to use e-procurement technology (X4)
2	Perceived ease of use	Learning to use e-procurement technology would be easy for me (X5)
		The interaction with e-procurement does not require a lot of mental effort (X6)
		It is easy to use e-procurement technology to accomplish my procurement tasks (X7)
3	Perceived of usefulness	Using e-procurement technology would enable me to accomplish my task more quickly (X8)
		Using e-procurement technology would make it easier for me to carry out my task (X9)
		e-procurement technology is useful (X10)
		Overall, using e-procurement technology is advantageous (X11)
4	Intention to use e-procurement	I would use e-procurement technology for my procurement needs (X12)
		Using e-procurement technology for handling my procurement tasks is something I would do (X13)
		I would see myself using e-procurement technology for handling my procurement tasks (X14)

## 2.10 Research Hypothesis

Table 2. Operationalization of the Variables

No.	Research Hypothesis
1	$H_0$ = There are no positive effects on ease of use (EOU) to the perceived usefulness of e-procurement $H_1$ = Ease of use (EOU) has positive effect on the perceived usefulness of e-procurement
2	$H_0$ = There are no positive effects on ease of use (EOU) in attitude toward using e-procurement $H_2$ = Ease of use (EOU) has positive effect on attitude toward using e-procurement
3	$H_0$ = There are no positive effects on Perceived of usefulness in attitude toward using e-procurement $H_3$ = Perceived of usefulness has positive effect on attitude toward using e-procurement
4	$H_0$ = There are no positive effects on Perceived of usefulness to intention to use e-procurement $H_4$ = Perceived of usefulness has positive effect on intention to use e-procurement
5	$H_0$ = There are no positive effects on attitude toward using intention to use e-procurement $H_5$ = Attitude toward using has positive effect on intention to use e-procurement

## 3. Finding And Discussion

### 3.1 Respondents' Characteristics

Based on the research results, the characteristics of respondents by gender consist of 155 males and 65 females. This shows that the majority of businesses people in the Sentra Sablon Suci were male. Based on the age group, the majority of respondents were aged 26-39 years who were examined in the 124 respondents, between 40-50 years in the 48 respondents, those who were aged less than 25 years are of the 27 respondents, and those with the age over 50 years are of the 21 respondents. This shows that the majority of respondents in the *Sentra Sablon Suci* are in their productive ages.

Based on their educational background, the majority of respondents were high school graduates with 180 respondents, 13 respondents graduated from junior high school, 12 respondents graduated from the university/institute, and 15 respondents who were educated apart from the criteria mentioned in the questionnaire.

Based on the number of workers, the majority of respondents surveyed have a number of employees which is less than five people with 103 respondents, respondents who have a number of workers between 5-9 people with 82 respondents, respondents who have a number of workers between 10-20 people with 14 respondents, and respondents who have a number of workers over 20 people with 21 respondents. This shows that the majority of respondents are SMEs that are small-scale business consisting of only several workers. Under the old business, 90 respondents participating have been doing business between 8-15 years with, 88 respondents have run the business more than 15 years, 99 respondents have been doing the business between 2 to 7 years, and 20 respondents have been running their business for less than two years.

Based on their educational background, the majority of respondents have passed the education of high schools and their business duration. This suggests that the majority of respondents have been running the business for a long time and they still exist to this day. It also indicates that businesses in the *Sentra Sablon Suci* are likely to be the business that is passed down from previous generations. In addition, it demonstrates the *Sentra Sablon Suci* is one source of skilled labor to support the business activities. The businesses may not be run by the people who have higher education, but they can run their business until now. Based on the revenue earned in a year, 88 respondents receive over 70,000,000.00 IRP in a year, 56

respondents receive the revenue between 10,000,000.00 - 39,000,000.00 IRP, , 50 respondents received the revenue between Rp40,000,000.00 - 70,000,000.00 IRP, , and 26 respondents receive the revenue below 10,000,000.00 IRP in a year.. This shows that although the respondents are engaged in small-scale businesses, *Sentra Sablon Suci* can generate sizable revenue in a year and it also shows that the *Sentra Sablon Suci* is still a potential pivot SMEs in Bandung.

### 3.2 Statistic Descriptive Analysis

Descriptive analysis is used to determine the responses of respondents to the variables contained in the TAM; ease of use (EOU), perceived usefulness, attitude toward using, and intention to use e-procurement in Sentra Sablon Suci Bandung. The questions in the questionnaire are based on the items listed in the picture 2 as follow:

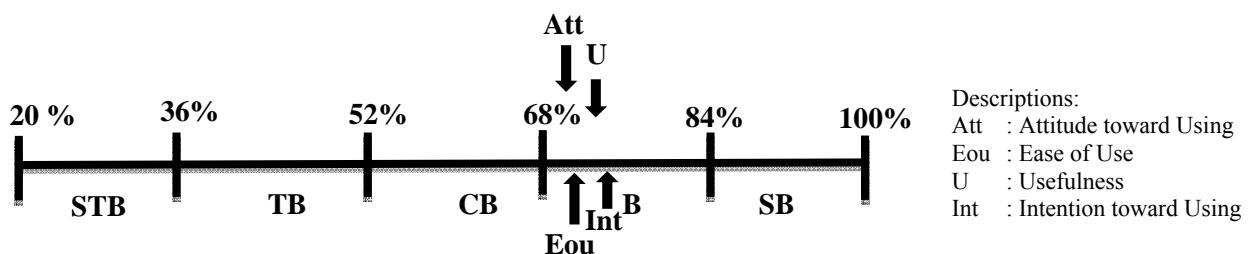


Fig. 2. Statistic Descriptive Analysis in TAM Variables

Based on the results using descriptive analysis on the variables in the TAM model, which consists of variable ease of use (EOU) located in both categories with the average value of percentage of 71.63%. This illustrates that the respondents in *Sentra Sablon Suci* think that electronic procurement technology is a good thing and is easy to use, which involves the process of learning and interacting. The variables of perceived usefulness are in good categories with the average value of percentage of 73.06%. This illustrates that the respondents in *Sentra Sablon Suci* Bandung think that electronic procurement technology is going to provide benefits when it is applied in the future. The attitude toward using variables is in good category with the average value of percentage of 70.81%. This illustrates that the respondents in *Sentra Sablon Suci* Bandung think that they have ideas and perceptions regarding the implementation of the procurement process through electronic or e-procurement in the future. The variable of intention to use e-procurement is in good category with the average value of percentage of 73.27%. This illustrates that the businesses in *Sentra Sablon Suci* Bandung give positive response to the variable of the intention to use e-procurement in which they have the desire to implement and use the electronic technology procurement or e-procurement in the future.

### 3.3 Analysis of Structural Equation Model (SEM)

In the SEM analysis using Lisrel program in this research, some analyzes are performed:

#### a. Normality Test Data

Table 3. Normality Test Data

Test of Univariate Normality for Continuous Variables					
Variable	Z-Score	P-Value	Z-Score	P-Value	Chi-square P-Value
X1	-0.896	0.370	-0.278	0.781	0.881 0.644
X2	-0.863	0.388	-0.313	0.755	0.843 0.656
X3	-0.317	0.751	-0.695	0.487	0.583 0.747
X4	-0.720	0.472	-1.619	0.105	3.140 0.208
X5	-0.351	0.726	-0.794	0.427	0.753 0.686
X6	-0.724	0.469	-1.097	0.273	1.728 0.421
X7	-0.646	0.519	-2.011	0.044	4.462 0.107
X8	-1.028	0.304	-0.524	0.600	1.331 0.514
X9	-0.041	0.967	-0.415	0.678	0.174 0.917
X10	-0.814	0.416	-0.876	0.381	1.430 0.489
X11	-0.448	0.654	-0.290	0.772	0.285 0.867
X12	0.081	0.935	0.264	0.792	0.076 0.963
X13	-0.255	0.799	-1.611	0.107	2.660 0.264
X14	-0.025	0.980	-1.935	0.053	3.743 0.154
Relative Multivariate Kurtosis = 1.000					

Based on Table 3, the test for normality can be seen from the P-values for skewness and kurtosis Value. Subject to the value above 0.05, all variables used in this study are included in the data and they are normal.

b. *Analysis of Confirmatory Factor Analysis (CFA)*

CFA test is used to examine the indicator used in this study for their valid and reliable value. The value is used in latent variable if the value of the loading factor is  $> 0.5$ . The picture below illustrates the result of CFA test from Lisrel program in the latent variable:

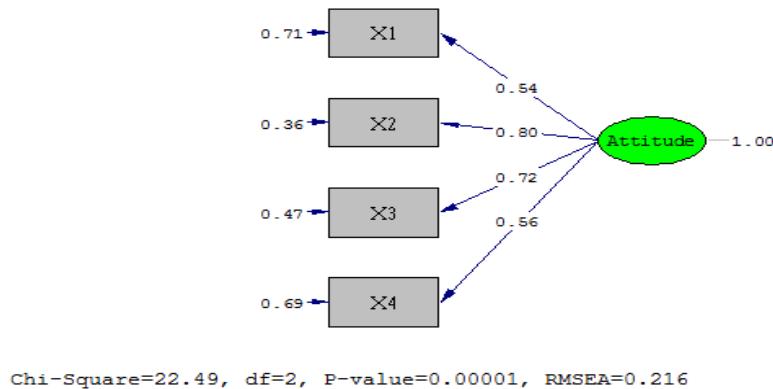


Fig. 3. CFA Test of Attitude toward Using

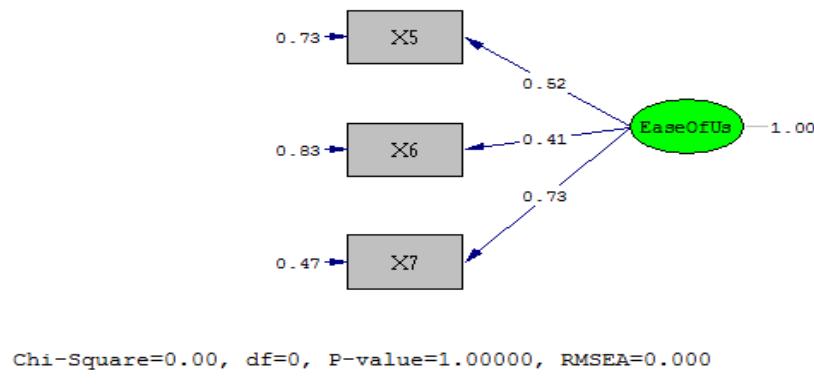


Fig. 4. CFA Test of Ease of Use

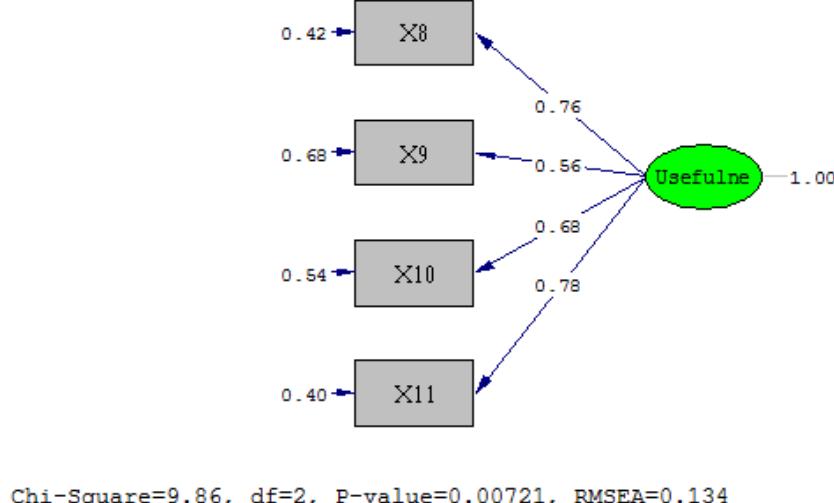
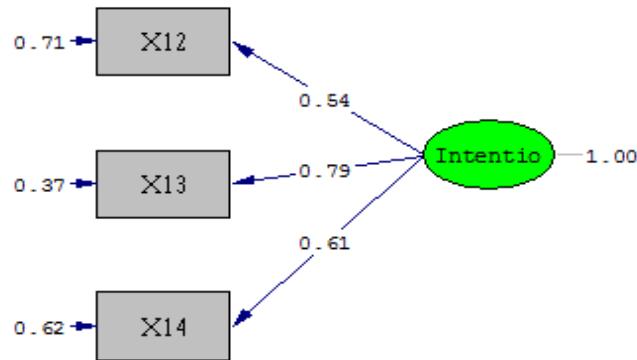


Fig. 5. CFA Test of Perceived Usefulness



Chi-Square=0.00, df=0, P-value=1.00000, RMSEA=0.000

Fig. 6. CFA Test of Intention to use E-Procurement

Based on the results of the CFA tests conducted to test the validity of each indicator for each variable in the TAM model of 14, the indicators tested contain 13 valid items that can be used in the SEM analysis stage. The indicators may apply to the model as a whole, however there is one item that is invalid and should be dropped out from further analysis. The valid items, among others, are the statements of X1, X2, X3, X4, X5, X7, X8, X9, X10, X11, X12, X13, and X14. While the item that is not valid according to the results of the CFA test X6 will be in trimming or dropped from further analysis.

#### c. Goodness of Fit (GOF) Test

In SEM analysis, the model used should be in fit condition. This indicates that a model can be examined in further analysis. When the model is fit, it means that the model can be used to analyze problems in which they are formulated in the hypothesis.

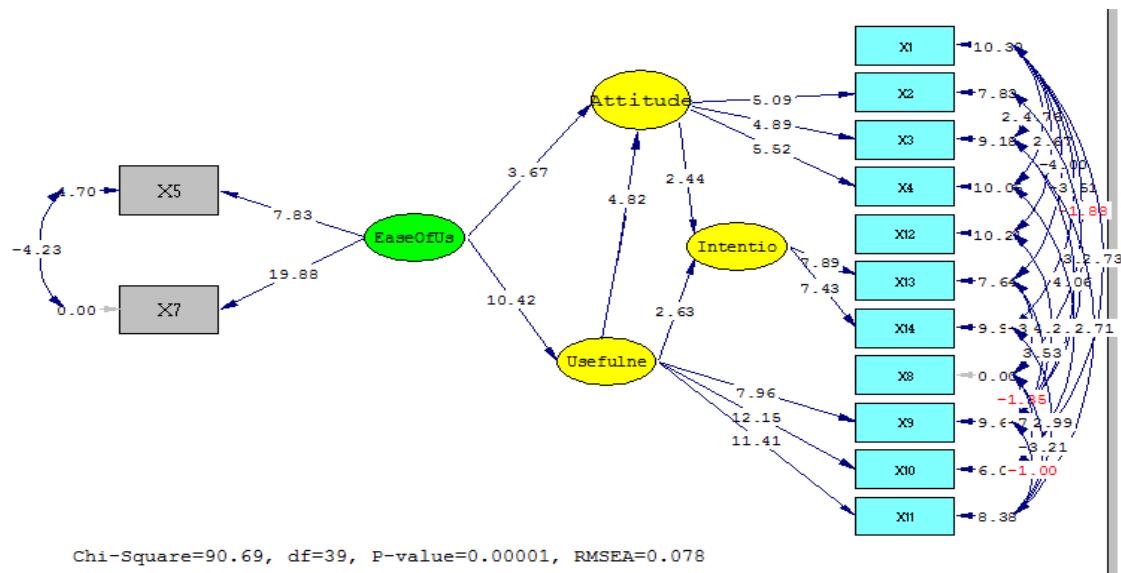


Fig. 7. The Result of Structural Equation Model (SEM)

Table 4. Goodness of Fit

GOF Criteria	Cut-off Value	GOF Output	Description
Chi- Square	Expected to be small	90,69	Marginal fit
GFI	>0,90	0,94	Good fit
RMSEA	0,05 – 0,08	0,078	Good fit
CFI	>0,90; > 0,95	0,98	Good fit
IFI	>0,90; > 0,95	0,98	Good fit
NFI	>0,90; > 0,95	0,97	Good fit
RFI	>0,90; > 0,95	0,94	Good fit
RMR	< 0,08	0,053	Good fit

Based on Table 4, all of the requirements for testing the goodness of fit are in good condition. This means that the model is fit and acceptable although there are conditions that are in the category of marginal fit, which is the chi-square.

d. *Validity and Reliability Test*

Table 5. The Result of Validity for Indicator Test

Item	SLF Output	Acceptance of SLF	Descriptive
X1	0,85	≥ 0,5	Valid
X2	0,74	≥ 0,5	Valid
X3	0,63	≥ 0,5	Valid
X4	0,52	≥ 0,5	Valid
X5	0,71	≥ 0,5	Valid
X7	0,97	≥ 0,5	Valid
X8	0,99	≥ 0,5	Valid
X9	0,53	≥ 0,5	Valid
X10	0,79	≥ 0,5	Valid
X11	0,70	≥ 0,5	Valid
X12	0,59	≥ 0,5	Valid
X13	0,71	≥ 0,5	Valid
X14	0,66	≥ 0,5	Valid

Based on Table 5, all the indicators which are used in this research are all valid. In SEM analysis, the variables should have the standardized loading factor (SLF) of  $\geq 0,5$

Table 6. The Result of Composite Reliability Test

Variable	Value of Composite Reliability	Composite Reliability Standard	Descriptive
Attitude toward using	0,77	≥ 0,6	Reliable
Ease of Use (EOU)	0,83	≥ 0,6	Reliable
Perceived Usefulness	0,85	≥ 0,6	Reliable
Intention to Use E-Procurement	0,68	≥ 0,6	Reliable

Based on Table 6, the variables used in this study meet the requirements of composite reliability  $\geq 0,6$ . Therefore, this research can be accepted.

e. *Equation Result of SEM*

The equation results of SEM in this study with the output of Lisrel are as follows:

$$\text{Attitude} = 0,69 * \text{Usefulness} + 0,31 * \text{Ease Of Use}, \text{ Errorvar} = 0,16, R^2 = 0,84$$

(0,14)	(0,083)	(0,080)
4,82	3,67	1,98

$$\text{Intention} = 0,53 * \text{Attitude} + 0,47 * \text{Usefulness}, \text{ Errorvar} = 0,057, R^2 = 0,94$$

(0,22)	(0,18)	(0,068)
2,44	2,63	0,84

$$\text{Usefulness} = 0,63 * \text{Ease Of Use}, \text{ Errorvar} = 0,60, R^2 = 0,40$$

(0,061)	(0,060)	
10,42	9,87	

Accordingly, it can be concluded that the predictor may see where the value of t-value is above 1.65 points. This means that the conditions for accepting the statistical hypothesis test are as follows:

- 1) Based on the t-value in the equation  $10.42 > 1.65$  causing  $h_0$  to be rejected and  $h_1$  is accepted, it is proved that there is a positive effect of ease of use (EOU) on the perceived usefulness.
- 2) Based on the t-value in the equation  $3.67 > 1.65$  causing  $h_0$  to be rejected and  $h_2$  is accepted, it is proved that there is a positive effect of ease of use (EOU) on attitude toward using.
- 3) Based on the t-value in the equation  $4.82 > 1.65$  causing  $h_0$  to be rejected and  $h_3$  is accepted, it is proved that there is a positive effect of perceived usefulness on attitude toward using.
- 4) Based on the t-value in the equation  $2.63 > 1.65$  causing  $h_0$  to be rejected and  $h_4$  is accepted, it is proved that there is a positive effect of perceived usefulness on intention to use e-procurement.
- 5) Based on the t-value in the equation  $2.44 > 1.65$  causing  $h_0$  to be rejected and  $h_5$  is accepted, it is proved that there is a positive effect of attitude toward using on the intention to use e-procurement.

#### **4. Conclusion**

- 1) The process of adopting e-procurement in *Sentra Sablon Suci* Bandung as a whole is in good category. This is shown by all the TAM variables that serve as tools of analysis. The variables of ease of use (EOU), perceived usefulness, attitude toward using, and intention to use e-procurement are in the good category. The results of the analysis on variable level value of TAM are used to produce value for the variable of ease of use (EOU) for 71.63%, 73.06% for perceived usefulness, attitude toward using amounted with 70.81%, and the intention to use-procurement with 73.27%.
- 2) The variable of ease of use (EOU) has a positive effect on perceived usefulness by 60%. This suggests that the perception level of the usefulness of using technology is strongly influenced by the perception level of the ease of use on particular technology under the condition that the users still use new technology.
- 3) The variables of ease of use (EOU) and perceived usefulness have a positive effect on attitude toward using simultaneously by 16%. This suggests that the perception of ease of use of technology and the perception of the usefulness of technology gives small effect on a person's attitude towards the use of e-procurement technology, especially in *Sentra Sablon Suci* Bandung.
- 4) The variables of perceived usefulness and attitude toward using have a positive effect on the variable of intention to use e-procurement simultaneously by 5.7%. This suggests that the perception of the usefulness of technology and attitudes towards the use of technology give a very small effect on the interest in using e-procurement technology, especially in *Sentra Sablon Suci* Bandung.
- 5) Overall, the technology acceptance model (TAM) is a model that is less powerful in predicting the adoption of e-procurement technology in SME's, especially in *Sentra Sablon Suci* Bandung. This can be a consideration for the organization who wants to make or implement new technology in the new area, for example in SME's.

#### **5. Future Research**

For future research, there are some main points that should be taken into account. First, if the researcher wants to examine the adoption of technology especially in SME's, he should consider more about the social factors; for example, the usage of TRA (Theory of Reasoned Action) or TPB (Theory of Planned Behavior). This factor maybe more suitable for SME's user. Second, TAM usage of technology adoption should be examined, including the other technologies like e-auction, e-market, etc., which are useful for SME's user. Finally, the researcher should consider expert opinion to combine this research in order to get further information.

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The ISCLO Conference 2014

## Benchmarking Learning Organization Pillars and Processes in Indonesian Companies

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### Abstract

Many companies are transforming into Learning Organizations in various degrees of success. However, no tool is available to measure the progress of the transformation, to pinpoint which factors are lagging and which factors are doing well, and to compare against other companies or peers. HBS Professor David Garvin, et al, offered a benchmarking tool in los.hbr.edu and reviewed their survey concept in the article “Is Yours a Learning Organization” in Harvard Business Review March 2008. While the idea and the tool were good to measure the organizational learning climates and factors, it did not embody the 5 disciplines explained in Peter Senge’s concept of Learning Organization. In his work explained in this paper, the author expanded the Senge’s five Learning Organization disciplines into ten pillars, and took the idea of Garvin et.al in the perspective of measuring the process, then developed a benchmarking tool to help companies to transform into Learning Organization with more precise efforts. The tool has been used to survey numerous companies in Indonesia, in three consecutive years. This tool helps identification of which pillars are lagging compared with other pillars, thus can help the companies to focus in improving the lagging pillars . And this survey also describe the transformation process, whether it is in the initiation by the leader, in the implementation, or already forming some of the culture. This benchmark needs to have more companies survey to be able for companies to benchmark against the same industry’s companies.

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*Keywords:* Learning Organization; benchmark; Indonesian companies;

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### Introduction

Learning Organization is a concept that was just developed in the 1990s, and pioneered by the work and research of Peter Senge and colleagues. [1] The Learning Organization concept is different than what was coined as Organizational Learning. Learning Organization is according to Peter Senge [2]: “*an organization where people expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together.*” This is fundamentally different than what commonly people perceived as organizational learning, which is the learning process of people in an organization.[3][4] The Learning Organization concept touches many other fundamental issues, in which Peter Senge termed as ‘disciplines’. However, many authors are still referring to organizational learning in exchange of Learning Organization. This difference of interpretations results in different definition of how a successful Learning Organization will look like. The very philosophical concept of Learning Organization that is explained in the book of Peter Senge “The Fifth Discipline: The Art

and Practice of Learning Organization” [2] somehow needs to be translated in practical steps which can be measured to guide corporations to progress according to the concept.

## Measuring and Benchmarking Learning Organization Transformation

“If you cannot measure it, you cannot improve it” is a quote that is often mentioned by management authors including Peter Drucker. This means if we want to lead a corporation to transform into a Learning Organization, we need to be able to develop a measurement instrument, to track progress on the efforts and results, and also to benchmark against other corporations.

Google Search that was done by the author until 18<sup>th</sup> October 2014, gave some leads to some efforts of formulating a measurement or benchmarking tool for corporations to assess themselves:

1. HBS Professor David Garvin, et al, [5] offered a benchmarking tool in the website (accessed on 18<sup>th</sup> October 2014) <http://www.midss.org/content/learning-organization-survey> and reviewed their survey concept in the article “Is Yours a Learning Organization” in Harvard Business Review March 2008. While Garvin’s idea and tools were good to measure the organizational learning, it doesn’t show any connection with the disciplines of a Learning Organization such as mentioned by Senge. The author mentioned the purpose of the instrument is *“to assess, and compare, the learning that is occurring in several areas of an organization or in different organizations.”* Interesting though, Garvin divided the survey into three key sections: The first section, Supportive Learning Environment, assesses psychological safety, appreciation of differences, openness to new ideas, and time for reflection. The second section, Concrete Learning Processes and Practices, assesses experimentation, information collection, analysis, education and training, and information transfer. The final section examines Leadership in the organization to determine if it reinforces learning behavior. The three sections can logically explain the stages of how an organization changes; first is the initiation by the leader, follows by the embodiment of the initiative into the process and practices inside the organization, and finally will create an environment that is supportive to the initiative or comply to the initiative which means the culture has changed into the new one.
2. Bryan T. Phillips, [6], a Managing Partner, at Consolidated Consulting, Lennox Head, New South Wales, Australia, wrote an article "A four-level learning organisation benchmark implementation model" in The Learning Organization, Vol. 10 Iss: 2, pp.98 – 105. The abstract mentioned *“Reveals that research using a new learning organisation benchmarking implementation model has found that Australian organisations are increasingly committed to adopting, and implementing, learning organisation principles. Discusses the debate over individual and organisational learning. Outlines a ten-principle learning organisation benchmarking and implementation model and describes the methodology used to establish its validity. Shows how organisations can determine the extent of the shortfall between the importance accorded learning organisation principles and the extent of their implementation. It has the ability to identify sectoral trends and reveal individual organisation weaknesses. Concludes that the model is an effective means of establishing an organisation’s status, providing a vehicle for evolution into a learning organisation.”*
3. Bersin and Associates [7] offered a report service on High Impact Learning Organization research that was written in a report with specification of *“350-plus page study is a detailed analysis of trends and best practices in the management and operations of corporate training. The report is based on surveys of more than 800 organizations and interviews with approximately 100 learning executives over the last three years. The definitive go-to resource for every corporate learning executive, the study identifies the top 18 learning strategies that have highest business impact and 50 key characteristics of a high-impact learning culture.”* Again, from the specification it mentioned, the measurement is more on corporate training or learning, which is not specifically aligned with the Learning Organization defined by Senge.

## Designing and Developing a Measurement Tool for Learning Organization Transformation

Peter Senge [2] described the five disciplines that are needed to transform a corporation into a Learning Organization, which he explained as:

- Personal Mastery; the discipline of continually clarifying and deepening of our personal vision, of focusing our energies, of developing patience, and of seeing reality objectively.
- Mental Model; the discipline of understanding deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action.
- Shared Vision; the discipline to apply the skills of unearthing shared "pictures of the future" that foster genuine commitment and enrollment rather than compliance.
- Team Learning; the discipline to improve the capacity of members of a team to suspend assumptions and enter into a genuine "thinking together."
- System Thinking; the discipline to enhance the ability to recognize the invisible fabrics of interrelated actions, which often take years to fully play out their effects on each other.

The disciplines explained by Senge are the input or efforts of everyone in the corporation that will lead the corporation to transform into a Learning Organization. However, in addition to the input indicators, we need to know of what will be the results that can be seen whenever a corporation turns into a Learning Organization. As we all know, a company is measured by its productivity, and especially in a Learning Organization where pictured as "*where new and expansive patterns of thinking are nurtured*", innovation should be a paramount result to be seen. This is also in accordance to the research done by Kontoghiorghe et. al [8]

In addition to that, the practice of Knowledge Management is also an integral part of a Learning Organization, as knowledge management described as managing people to create new knowledge, disseminate it widely throughout the organization, and quickly embody it in new technologies and products.[9] So the existence of Knowledge Management can be also used as an indicator of a Learning Organization. This link is also researched by Dzunic [10].

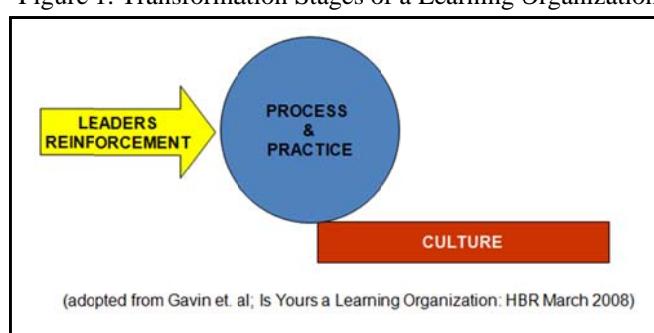
According to Lawler III (1993) Reward systems are a critical part of any organizational designs. To direct the efforts in Learning Organization so that it connects to its purpose, the reward systems should be based on performance and should value learning.

Last but not least, in any transformational process, leadership plays an important role. Like the Hannover Insurance CEO Bill O'Brien said in Senge [2]. *"If this type of organization is so widely preferred, why don't people create such organizations? I think the answer is leadership."*

So, in addition to the five disciplines mentioned by Senge, there are five other indicators that can be found in a Learning Organization, that can be used as measurement items. Those five other indicators are productivity, innovation, knowledge management, reward systems, and leadership.

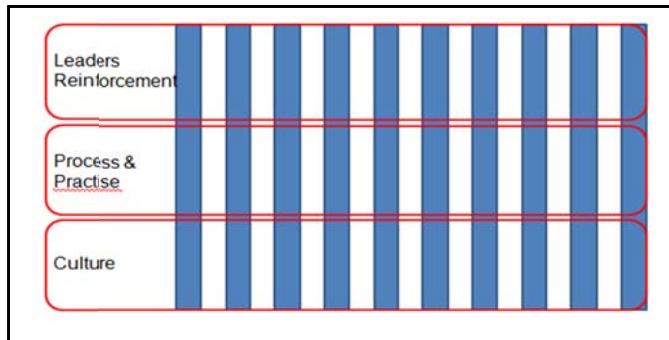
Garvin et. al. [5] work gave an insight that a transformation is happening in several stages. The first stage is when the leader takes the initiative and then reinforces day-by-day all other leaders and staffs to change, that is what is called Leaders Reinforcement. In this stage, the changes happen in the organization are in the forms of encouragement from leaders, leaders behavior, etc. The initiative and reinforcement of leaders will not give practical organizational effects unless the initiative is then transformed into new processes and practices, e.g. changes in the reward systems, company rules and regulations, creation of learning groups, etc. And finally, after being done sometime consistently, these changes will transform into new habit and culture, which are more sustainable. In this stage, people don't need to adjust to the changes by following processes and practices anymore, but they already reflect the changes in their everyday's mindset and behavior.

Figure 1. Transformation Stages of a Learning Organization



By combining the ten indicators, or pillars of a Learning Organization and the transformation stages, the structure of the measurement tool will be like this:

Figure 2. The Survey Structure



Considering the total time of each participant need to fill up the survey, each of the pillars of Learning Organization is measured by 6 questions, with total 60 questions to cover the 10 pillars. If one question needs 30 seconds for the participant to answer, then the total questions will take up 30 minutes to finish. The 6 questions of each pillars are divided into three category; 2 questions for Leaders Reinforcement stage, 2 questions for Process and Practice stage, and 2 questions for culture stage. The example of the 6 questions is below.

Figure 3. The example of 6 questions in a pillar divided into 3 categories of stage

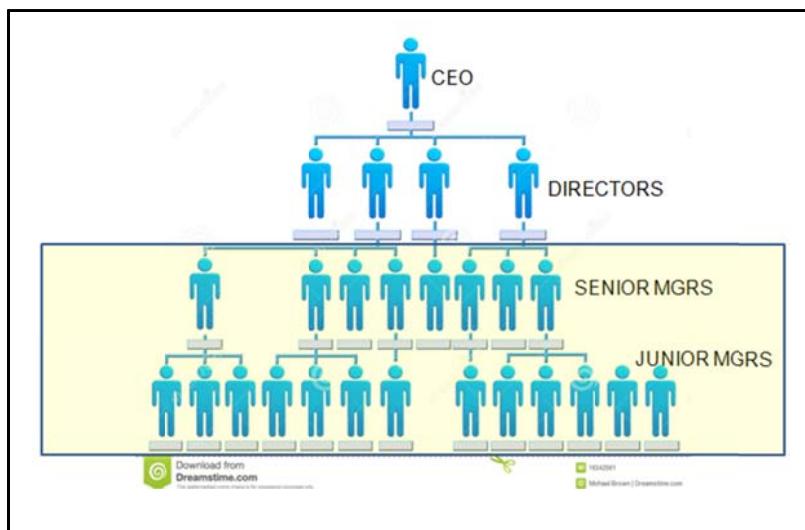
QUESTION	CATEGORY
Seberapa sering ARAH DAN STRATEGI perusahaan ditentukan oleh management TANPA melibatkan seluruh staff? Attribut: (Tidak pernah - Selalu)   Flag as min: Yes	Supportive Environment/Culture
Seberapa besar kebersamaan SELURUH staf dalam menentukan masa depan perusahaan? Attribut: (Sangat besar - Sangat kecil)   Flag as min: Yes	Concrete learning process/practise
Seberapa banyak staff yang mengerti ARAH perusahaan di masa mendatang? Attribut: (Tidak ada - Semua)   Flag as min: No	Concrete learning process/practise
Seberapa banyak staff merasa masa depan perusahaan searah dengan masa depan PRIBADInya? Attribut: (Tidak ada - Semua)   Flag as min: No	Supportive Environment/Culture
Seberapa banyak atasan MENDORONG staff untuk memberi masukan kepada penentuan masa depan perusahaan? Attribut: (Tidak pernah - Selalu)   Flag as min: No	Leaders reinforcement
Seberapa jauh atasan terbuka untuk ide-ide baru yang datang dari staff, tentang ke mana MASA DEPAN perusahaan? Attribut: (Tidak pernah - Selalu)   Flag as min: No	Leaders reinforcement

### Selecting the Respondents for the Survey for Learning Organization Transformation

People in the top executive positions usually have a biased opinion about their organization towards more optimistic view, as leaders are always optimistic. Therefore they are not good candidates for this survey. They may think that what they have initiated have been executed by the employees, because simply they have encouraged people to execute. The

reality might be different, as different people take different attitude and time towards a change. So the candidates of respondents in this survey are the managers below the executives position (below Board of Directors). Considering the level of understanding of what is going on in the company, junior or new employees are not ideal candidates of this survey either. The minimum number of respondents required is 40 persons.

Figure 4. The ideal candidates of respondents to this survey



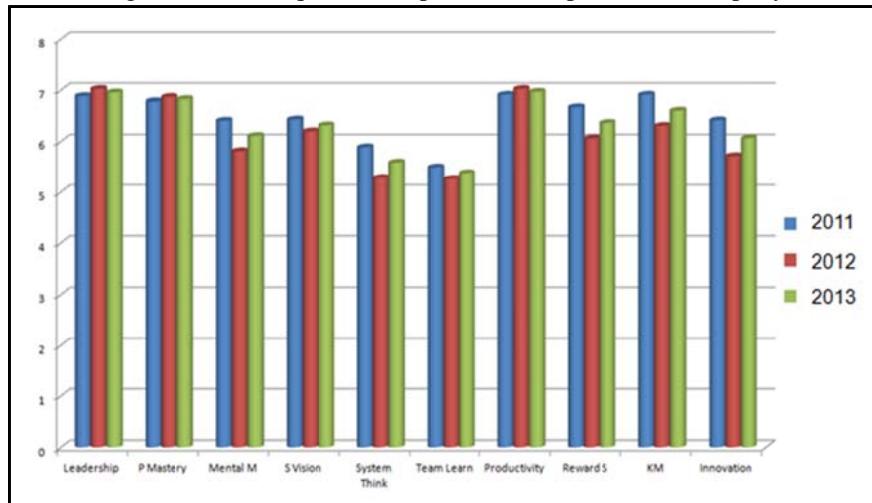
### Applying the Measurement Tool for Learning Organization Transformation

The measurement tool that was designed and developed in 2010, then was applied to several companies in 2011, 2012, and 2013. The 2014 survey is still ongoing. In 2011, the companies that took the survey were 14 companies, they are; PT Angkasa Pura 1, PT Antam, PT Asabri, PT Bakrieland, PT Bukit Asam, PT FIF, PT Jasa Marga, PT Asuransi Jasa Indonesia, PT Kresna Securities, PT Latinusa, Perum Pegadaian, PT Pelindo-2, PTPN V, PTPN IX, and PT Total Bangun Persada. In 2012, there were 13 companies took the survey, they are; PT Astra Otopart, PT Asuransi Jasa Indonesia, PT Kresna Securities, PT Pelindo-2, PT Pelindo-3, PT Bukit Asam, PT FIF, PT Fortune Indonesia, PT Jasa Marga, PT Pupuk Kaltim, PT Telkom Indonesai, PT ISS, and PT Antam. In 2013, there were 24 companies took the survey, they are; PT Astra Otopart, PT Jamsostek, PT Kereta Api Indonesia, PT Indomobil Finance, PT Marga Mandala Sakti, PT Megapolitan, PT Pos Logistik Indonesia, PTPN IX, PT Asuransi Tripakarta, PT BNI Syariah, PT Angkasa Pura 1, PTPN XI, PT Asabri, PT Kresna Securities, PT Pelindo-2, PT Mandiri Finance, Perum Pegadaian, PT FIF, PT Fortune Indonesia, PT Jasa Marga, PT Garuda Indonesia, PT Telkom Indonesai, PT United Tractors, and PT Sarinah.

There are several interpretations can be obtained by the companies from the survey results:

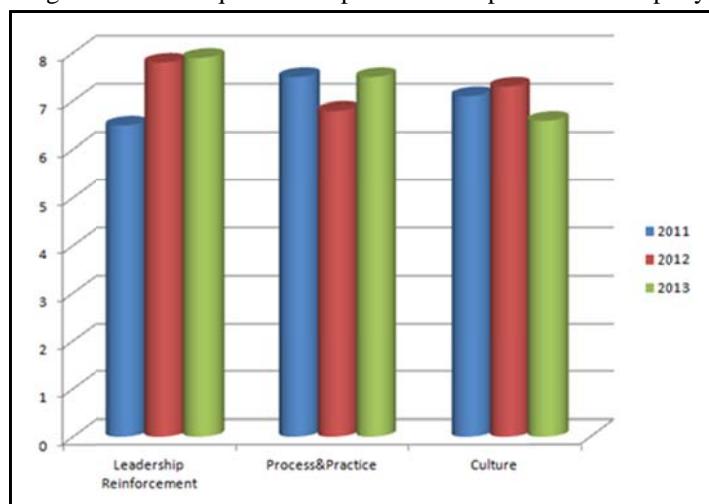
1. Comparison between the 10 pillars, which pillars are high and which pillars need improvements.
2. Portrait of the balance of Leaders Reinforcement, Process and Practices, and Culture, related to Learning Organization principles, in that particular year.
3. Time sequence comparison of the 10 pillars. When the company takes multiple years survey, especially if consecutively, we can see the dynamics of change of each pillars to see whether the efforts in place have given results.

Figure 5. Time sequence comparison of 10 pillars of a company



- Time sequence comparison of the stages of transformation, whether the Leaders Reinforcement has manifested in new Process and Practice, and crafted a new Culture.

Figure 6. Time sequence comparison of 10 pillars of a company



- Comparison with other companies. Paired with the survey results of other companies as a group in the same year, can give feedback of how good the internal situations compared to the average of other companies. In a big data evaluation, a company can compare to the companies in the same industry.

Figure 7. Peer comparison of 10 pillars of a company

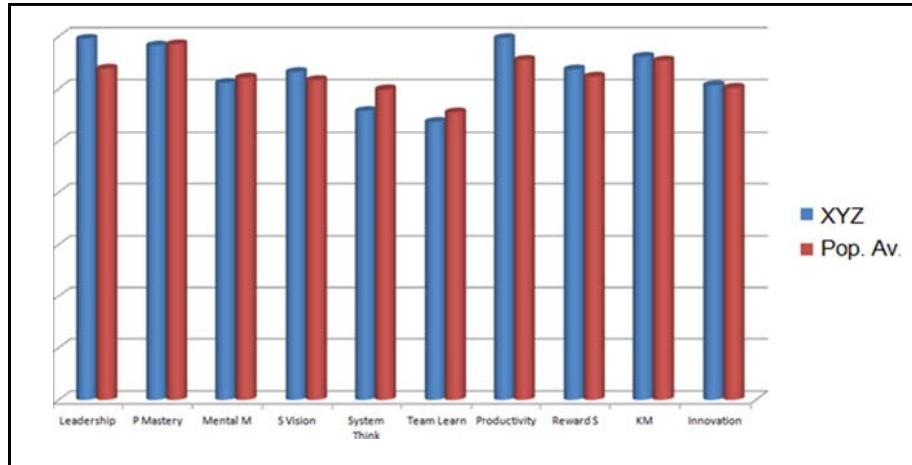
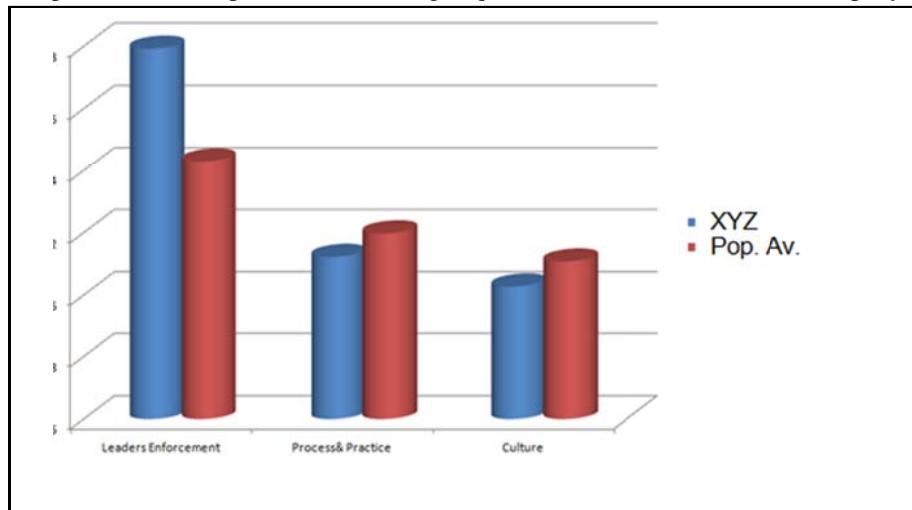


Figure 8. Peer comparison of Learning Organization transformation of a company



The individual data of the companies cannot be shared in this paper due to the confidentiality nature of the survey results. However, we do have permission from a company that is improving year by year in our research, to share the results. The company is PT FIF (Federal International Finance) and the permission to share and to publish the survey results is from its CEO, Mr. Suhartono, on 29<sup>th</sup> September 2014.

### Case Study; PT Federal International Finance (FIF)

Corporate Profile of PT Federal International Finance (FIF) according to Bloomberg Business Week [11]: “*PT Federal International Finance provides consumer financing services in Indonesia. The company engages in financing Honda motorcycles. It is involved in financing new and used motorcycles, as well as multipurpose products, such as electronic goods and household appliances. The company also offers leasing and factoring services. It operates a network of has 164 branch offices and 364 point of services facilities in Makassar, Banjarmasin, Medan, Palembang, Semarang, Yogyakarta, Surabaya, Denpasar, Kediri, Jember, Bandung, and others. The company was formerly known as PT Mitrapusaka Artha Finance and changed its name to PT Federal International Finance in November 1991. PT Federal International Finance was founded in 1989 and is headquartered in Jakarta, Indonesia. PT Federal International Finance is a subsidiary of PT Astra International, Tbk.*

PT FIF ([www.fifgroup.co.id](http://www.fifgroup.co.id)) office is at Menara FIF, Jalan TB Simatupang Kav. 15, Cilandak, Jakarta, 12440, Indonesia. It's headcount in 2014 is about 16,000 employees.

PT FIF transformation process started with vision and mission as well as corporate values transformation initiated since 2010, led by its CEO, Mr. Suhartono. Other than reemphasizing the focus to customers, PT FIF adopt a new approach towards the customers that is customization of products to the characteristics of the customers. One of the new products was that in certain area, the customer can pay its installments as much as they want according to their cashflow. For the products innovation, the CEO shifted much of his role down to the managers. It also readjust its rewards systems. The new rewards systems will allow the lower rank employees to achieve more incentives, even can be higher than their supervisors. In addition to that, the company also involve the family of the employees in the rewards systems, e.g. the family of employees were invited for a dinner together with the management, and the management thank them for their supports to the respected employees. The company also launched an integrated IT system with its dealers, so the company can anticipate better the needs of financing of the dealers' customers.

The efforts seem to work well in the indicators of survey of Learning Organization that we conducted upon PT FIF. Each year there was a steady improvement of each pillars measured. And in the year 2013, PT FIF achieved the highest score among the companies we surveyed at that year.

Figure 9. Survey results of 10 pillars of Learning Organization of PT FIF year 2011, 2012, 2013

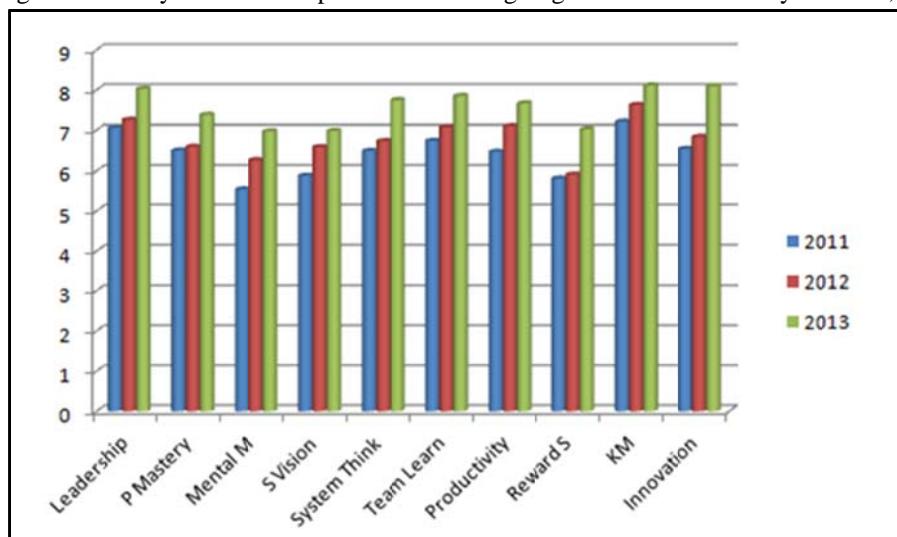
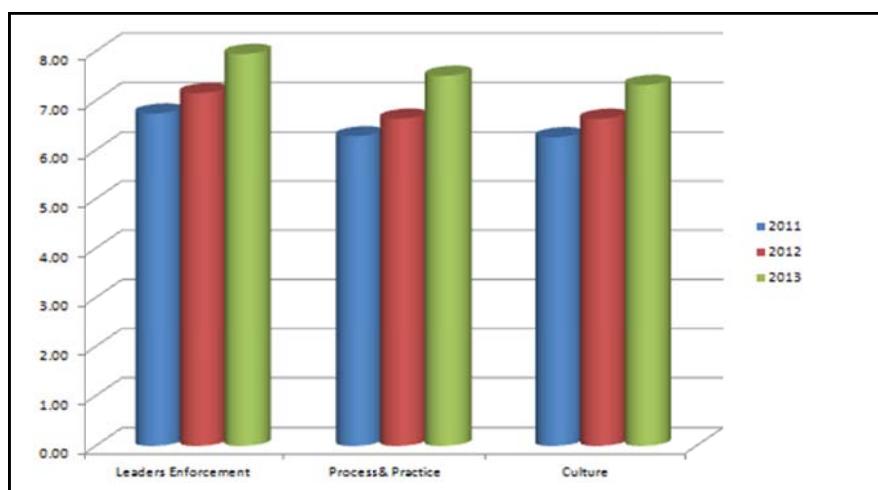


Figure 10. Survey results of stages of Learning Organization of PT FIF year 2011, 2012, 2013



From the survey results, we should expect that PT FIF performed better than the previous years. However, as the finance industry is much affected by the overall macroeconomic conditions of a country and also regulations applied to the industry, the comparison of performance should be against the industry average. From time to time, government regulation increased the minimum down payment for vehicle leasing, which affected the overall vehicle leasing market size. PT FIF was the best in our survey compared to other companies in 2013, however it didn't mean that PT FIF automatically was the best among other leasing companies, because only a few leasing companies joined the survey. And also we need to bear in mind that a change happened in a certain time, might need few years before it can be seen in the financial statements. We can expect that PT FIF will show a performance leap 2-3 years from 2013 where it showed above average Learning Organization survey scores.

PT FEDERAL INTERNATIONAL FINANCE					
LAPORAN LABA RUGI KOMPREHENSIF UNTUK TAHUN-TAHUN YANG BERAKHIR PADA TANGGAL 31 DESEMBER 2013, 2012 DAN 2011			STATEMENTS OF COMPREHENSIVE INCOME FOR THE YEARS ENDED 31 DECEMBER 2013, 2012 AND 2011		
	Catatan/ Notes	2013	2012	2011	
<b>PENGHASILAN</b>					
Pembayaran konsumen	2e,2m,17	5,192,850,044	5,068,579,557	4,537,238,228	<b>INCOME</b> Consumer financing
Bunga dan denda	2m,18	192,815,898	256,544,751	274,682,311	Interest and penalty
Penghasilan lain-lain	2m,19	172,973,892	167,709,019	171,371,268	Other income
Jumlah penghasilan		5,558,639,834	5,492,833,327	4,983,291,807	Total income
<b>BEBAN</b>					<b>EXPENSES</b>
Beban usaha	2m,2s, 20,24	1,739,433,124	1,491,367,512	1,297,601,032	Operating expenses
Beban bunga dan keuangan	21	1,283,827,310	1,230,317,362	1,068,788,943	Interest and financing charges
Penyisihan kerugian penurunan nilai pembayaran konsumen	2f,5	565,151,783	682,646,475	611,001,521	Allowance for impairment losses of consumer financing
Beban penurunan nilai lain-lain	22	358,341,505	575,060,833	583,337,199	Other impairment charges
Jumlah beban		3,946,753,722	3,979,392,182	3,560,728,695	Total expenses
<b>LABA SEBELUM PAJAK PENGHASILAN</b>		1,611,886,112	1,513,441,145	1,422,563,112	<b>PROFIT BEFORE INCOME TAX</b>

Figure 11. Financial Performance of PT FIF, year 2011-2013

## Conclusion

The Learning Organization concept originated from Peter Senge idea has formed a new meaning which is different from organizational learning. The transformation into a Learning Organization may happen in some extend in companies without even awareness of the Learning Organization concept, as every company tries to improve its performance through many efforts which some of them coincide with the Learning Organization concept. However, to fully capitalize the benefits of being a Learning Organization, companies need to have a comprehensive understanding about Learning Organization, and consciously put efforts to transform into it. A measurement tool might offer a more specific approach to improve certain aspects of becoming a Learning Organization, and to benchmark a company degree of transformation into a Learning Organization compared to other companies. The measurement tool designed and developed by us can be one of the options to measure, in the current situation where no standard measurement tool available. The value of this tool will increase along with the number of years it is implemented, and also with the number of companies joining the survey, which will be able to offer more comparisons in time-span and peer results. The improvement of the Learning Organization transformation in a company doesn't guarantee an instant financial result, instead it will guarantee more on sustainability. However, the financial result should be seen within next few years, but have to take into account the macro environment factors that can affect the absolute amount.\*\*\*

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## Customer Satisfaction Towards Faculty Service Using Service Quality Dimensions Perspective from Economic and Business Faculty Students

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### Abstract

The purpose of this paper is to examine the perception of student on the quality of faculty services. It also attempts to assess their level of satisfaction towards faculty services. The study is carried out using Importance Performance Analysis and the data is collected by questionnaire adopted from a quality impact survey based on SERVQUAL dimensions. The result reveals that students' satisfaction on faculty service and the priority attribute of SERVQUAL dimensions should be considered. The study is limited to the Faculty of Business Economics of Telkom University, thus any generalization to other academic services is premature at this stage. The result on the importance of performance analysis of service quality could be implemented in the faculty service.

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*Keywords:* Customer service quality; customer satisfaction; Importance Performance Analysis

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### 1. Introduction

Satisfaction is customer's evaluation of a product or service in terms of whether that product or service has met the customer's needs and expectations [1]. In 2009, Kiran [2] measured service quality on library and information science. This study contributes to the growing body of knowledge on service quality measures in academic libraries. He measured the perception of academic staff towards the quality and the impact of library services on efficiency and effectiveness of academic work. He also measured the level of satisfaction of academic staff towards library services. Pariseau and McDaniel [3] performed a research in two small private business schools to describe the most important determinants of overall service quality in business school and to equate the order the importance to be the same as for other services. In order to attract customer, serve their needs, and retain them, service provider and researcher are actively involved in understanding consumer's expectation and perceptions of service quality. The faculty respondents receive the SERVQUAL instrument in the same form as the student's instrument. The result is few differences in demographic data between the two schools, and the faculty and business schools are not currently delivering quality service in the view of their students.

The customer expectations represent a norm against which performance is compared and they may, in principle, take many forms varying from some minimum tolerable levels of performance to some concepts of the ideal or perfect service [4]. Customer satisfaction is a psychological concept arising from and individual's comparison of perceived product performance with expectations for this performance [5].

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Telkom University is higher education provider. Service in higher education is divided into two types of services; teaching services and administrative services. The faculty service is responsible for the administrative services for students. Based on the results of the surveys and interview conducted by researchers, there are indications of some factors in the faculty service which are not particularly good, including the persistence of faculty services employees who are less responsive to student complaints and employees attitudes that are less friendly to student. Delivering good service is more than measuring and tracing a physical process, however the attitudes and behavior of employees at every level must show a commitment to quality and respect for customers [6]. Modern management science's philosophy considers customer satisfaction as a baseline standard of performance and a possible standard of excellence for any business organization [7]. Related to the service quality, it is the concept of customer satisfaction. Practitioners and writers in popular press tend to use the term satisfaction and quality interchangeably, but researchers have attempted to be more precise about the meanings and the measurements of the two concepts, resulting in considerable debate although the two concepts have certain things in common Satisfaction is generally viewed as a broader concept, whereas service quality focuses specifically on dimensions of service [1-2].

Since the results of pre research show that many students complained about the faculty services, this study seeks to examine how students perceive the service quality of the faculty services and what dimension is the priority to be improved. It further investigates the satisfaction level to faculty services and maps the priority scale by importance – performance analysis [8].

## 2. Method

The measuring instrument used was questionnaire. The questionnaire consisted of 21 question items, to solicit response on a five-point Likert-type scale [9]. The questionnaire was based on SERVQUAL as a tool for quality service measurement. This questionnaire had has two scale responses: the desired service level-measure student expectation; and perception of faculty service performance. The questionnaire was divided into two sections: Section 1 – perception on quality of faculty secretary service; Section 2 – expectation on quality of faculty secretary service. The analytical technique using Importance Performance Analysis (IPA) that is firms is used both to evaluate their competitive position and to set priorities in order to enhance customer satisfaction [10]. A five-point Likert scale was used to measure the performance of SERVQUAL dimensions. For measuring expectation, the scale is ranged from (1 –very low to 5 very high) while the performance ranged from (1 –very poor performance to 5 –very good performance). Fill-in the blanks of categorical questions were used for demographic questions. The data were collected from Economic Business Faculty, Telkom University – Bandung in 2014. The researchers grant permission to survey the student over a period of 2 months. The surveys were conducted in the faculty service room at the front desk of the 110 questionnaires distributed. The questionnaires were derived by the operationalization of the variables shown in Table 1.

### 2.1. SERVQUAL model

The researcher adapts SERVQUAL as the instrument to assess faculty service quality. The SERVQUAL instrument measures the quality from the customer's perspective based on five dimensions (RATER) reflecting the core criteria that customers find most important in judging quality [1]:

1. Reliability: ability to perform the promised service dependably and accurately.
2. Assurance: knowledge and courtesy of employees and their ability to inspire trust and confidence.
3. Tangibles: appearance of physical facilities, equipment and personnel.
4. Empathy: provision of individualized care and attention to customer.
5. Responsiveness: willingness to help customers and provide prompt service.

### 2.2. Customer Satisfaction Index

Satisfaction index is reached when the performance of a product exceeds the value of the customer expectations. Customer Satisfaction Index is denoted as [9]:

$$\text{Customer Satisfaction} = \frac{\text{Organizational Performance}}{\text{Customer Expectation}} \dots \dots \dots \quad 1)$$

Where:

Satisfaction index  $> 1$  means customer is delighted

Satisfaction index  $= 1$  means customer is satisfied

Satisfaction index  $< 1$  means customer is dissatisfied

Table 1. Operationalization of Variables

Variable	Dimension	Operational Definition	Indicator
Service Quality [1]	Reliability	Ability to perform the promised service dependably and accurately.	<ul style="list-style-type: none"> <li>Honesty in delivering service</li> <li>Ability to make problem solution</li> <li>Employee readiness in serving</li> <li>Punctuality in promises</li> <li>Satisfactory service</li> <li>Clear information</li> </ul>
	Assurance	Knowledge and courtesy of employees and their ability to inspire trust and confidence.	<ul style="list-style-type: none"> <li>Employee hospitality</li> <li>Employee politeness</li> <li>Knowledge of employee</li> <li>Neatness in employee's dress</li> <li>Cleanliness of the room</li> <li>comfortable room were</li> <li>Completeness of secretariat room</li> <li>Room layout</li> </ul>
	Tangible	Appearance of physical facilities, equipment and personnel.	<ul style="list-style-type: none"> <li>Employee's respect</li> <li>Responsibility</li> <li>Willingness to listen</li> <li>Willingness to help</li> <li>Care</li> <li>Good communication</li> </ul>
	Empathy	Provision of individualized care and attention to customer.	<ul style="list-style-type: none"> <li>Quickness in serving</li> </ul>
	Responsiveness	Willingness to help customers and provide prompt service.	

### 2.3. Importance – Performance analysis

Importance-performance analysis (IPA) has been popular multi-attribute technique for evaluating marketing actions, as it yields insights into which elements of a value proposition the management should focus on [10]. It is a simple and useful technique for evaluating two dimensions of customer attributes; perceived importance and performance level. Using this information from sample customers, the analysis plots each attributes on a grid [10-11]. The IPA matrix IS first introduced into marketing domain to help target audience identify and rate certain product or service attributes, based on their importance to the rater and their impact on the organization's overall performance [8-12].

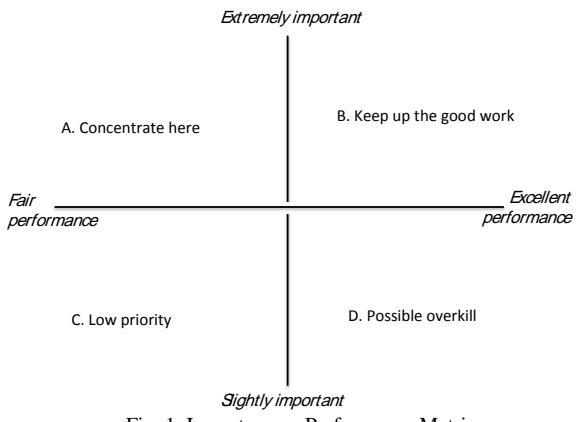


Fig. 1. Importance – Performance Matrix

The next step is to develop Importance Performance grids for faculty service:

- 1) Identifying the expectations of faculty service;
- 2) Measuring the importance of these expectations;
- 3) Measuring the performance of the faculty service;
- 4) Interpreting the ratings in a two-dimensional visual grid.

The vertical axis of the grid indicates the customer's perceived importance of the variables, and the horizontal axis shows the product's performance in relation to these variables [11]. Each variable is positioned in one of the four quadrants of the IP grid. Quadrant A includes variables considered important by faculty service but they are performed poorly, suggesting that the faculty service needs to concentrate on improving these attributes. The variables in quadrant B are rated as being of high importance and they are delivered with high performance. These attribute are considered as strengths,

which the faculty service should strive to maintain. Quadrant C contains variables that are low in both importance and performance, while Quadrant D includes variables that are of low importance but high performance. The variables in Quadrant D can be interpreted as possible overkill, because they seem to provide services that customers do not perceive as being important.

### 3. Results and discussion

A total of 110 questionnaires were distributed to the students of Economic Business Faculty. Only 100 are returned, giving a return rate of 90.9 percent. The details of the respondents are as shown in Table II. The majority of respondents are female with 61%, whereas male are 39%. The intensity rate respondents visiting secretariat are 67% more than 8 times a month, about 5 – 8 times a month, and 1 – 4 times a month. The respondents are from different year of admissions or different generation; the majority of respondents are varied; from the class of 2010 with 40%, class of 2011 with 25%, class of 2012 with 20%, and class of 2013 with 15%.

#### 3.1. Students' perception towards faculty service

The mean value of perception of quality as rated by students based on the five dimensions is shown in Table III. Overall, the highest score is for Tangible ( $m = 4.45$ ), followed by Reliability, Empathy, Assurance, and Responsiveness with the same result ( $m = 4.00$ ). For the secretariat, the services receiving the highest ratings are “neatness in employee's dress”; “cleanliness of the room”; “completeness secretariat room”; and “room layout”.

Table 2. Mean value of each dimension by expectation

Dimension	Expectation Mean
Reliability	4.40
Assurance	4.40
Tangible	4.45
Empathy	4.40
Responsiveness	4.40

#### 3.2. The expectation of student towards the faculty service

The mean value of expectation on quality as rated by student based on the five dimensions is shown in Table IV. Overall, the highest score is also for tangible ( $m = 3.60$ ), followed by Reliability ( $m = 3.01$ ), Empathy and Responsiveness with the same score ( $m = 3.00$ ), and lastly Assurance ( $m = 2.90$ ).

Table 3. Mean value of each dimension by performance

Dimension	Performance Mean
Reliability	3.10
Assurance	2.90
Tangible	3.60
Empathy	3.00
Responsiveness	3.00

#### 3.3. Satisfaction level of students towards Faculty service

Table 4 is the result of data acquisition using the SERVQUAL instrument and we can get the results as presented in column 2 and column 3, which is the mean of each questionnaire. Mean value is obtained by summing the score for each item and then divided by the number of respondents. The highest score for faculty service performance is on item 17 ( $m = 4$ ) “employees dress modestly”, followed by item 1 ( $m = 3.6$ ) “employees are honest in delivering service”, whereas the lowest score for performance is item 3 ( $m = 2.7$ ) “appropriate in promising” and item 9 ( $m = 2.8$ ) “quickness in service”. The highest score on student's expectation are item 7 and item 9 ( $m = 4.6$ ) “employee need to care and provide a quick service”, whereas the lowest score on student's expectation is item 1 ( $m = 4.3$ ) “employees are honest”.

Next step, to determine the customer satisfaction index is by calculating deviation about perception and expectation score for each item. The result shows that overall, it has a negative value suggesting a gap in service quality. The biggest gap is in item 3 ( $m = -1.7$ ) “appropriate in promising”, followed by item 4 “readiness in serving the students”, item 5 “employees answer is satisfying”, item 9 “quickness in serving” ( $m = -1.6$ ). Whereas the lowest gap is item 17 ( $m = -0.5$ ) “neatness in employee's dress”, followed by item 1 ( $m = -0.7$ ) “employees are honest”. Customer satisfaction indexes for SERVICE QUALITY dimension are shown on Table 4. The index shows the gap seen from the negative value, they are

reliability (-1.3); responsiveness (-1.4); assurance (-1.5); empathy (-1.4); tangible (-0.9). It is necessary to have training programs as an effort to improve service on aspects of responsiveness and the faculty service ability to deliver the promised service accurately, especially the ability of employees on faculty service in fostering student's trust and satisfaction.

Table 4. Customer Satisfaction Index

Item index by SERVQUAL score	Mean per item	Customer index per item	Dimension	Mean per dimension	Customer's satisfaction
	Perception	Expectation		Perception	Expectation
1 (Item 1 – 5)	3.6	4.3	-0.7 Reliability		
	3.1	4.4	-1.3		
2	3.2	4.4	-1.2		
3	2.7	4.4	-1.7		
4	2.9	4.5	-1.6		
5	2.9	4.5	-1.6		
6 (Item 6 -9)	3.3	4.4	-1.1 Responsiveness		
	3.0	4.4	-1.4		
7	3.0	4.6	-1.1		
8	3.0	4.4	-1.1		
9	2.8	4.6	-1.6		
10 (Item 10 – 13)	3.0	4.5	-1.5 Assurance		
	2.9	4.4	-1.5		
11	3.3	4.5	-1.2		
12	3.4	4.4	-1.0		
13	3.3	4.4	-1.1		
14 (Item 14 – 16)	3.0	4.4	-1.1 Empathy		
	3.0	4.4	-1.4		
15	3.0	4.5	-1.5		
16	3.0	4.4	-1.1		
17 (Item 17 – 21)	4.0	4.5	-0.5 Tangible		
	3.6	4.5	-0.9		
18	3.5	4.5	-1.0		
19	3.4	4.5	-1.1		
20	3.5	4.5	-1.0		
21	3.3	4.4	-1.1		

1.1. interpreting the ratings in a two-dimensional visual grids using Importance Performance Analysis

Table 5. Ratings in a two-dimensional visual grid

No	Indicators	Performance (X)	Expectation (Y)	Quadrant	Dimension
1	Honesty in delivering service	3.6	4.3	IV	Reliability
2	Ability to make problem solution	3.2	4.4	IV	
3	Employee readiness in serving	2.7	4.4	I	
4	Punctuality in promises	2.9	4.5	I	
5	Satisfactory service	2.9	4.5	I	
	Reliability Total Average	3.06	4.42		
6	Willingness to help	3.3	4.4	IV	Responsiveness
7	Care	3	4.6	III	
8	Good communication	3	4.4	III	
9	Quickness in serving	2.8	4.6	III	
	Responsiveness Total Average	3.025	4.5		
10	Satisfactory service	3	4.5	I	Assurance
11	Clearly information	3.3	4.5	II	
12	Employee hospitality	3.4	4.4	IV	
13	Employee politeness	3.3	4.4	IV	
	Assurance Total Average	3.25	4.45		
14	Employee's respect	3	4.4	III	Empathy
15	Responsibility	3	4.5	I	
16	Willingness to listen	3	4.4	I	
	Empathy Total Average	3	4.43		
17	Neatness in employee's dress	4	4.5	II	Tangible
18	The room were comfortable	3.5	4.5	II	

19	Completeness secretariat room	3.4	4.5	II
20	Cleanliness of the room	3.5	4.5	II
21	Room layout	3.3	4.4	IV
	Tangible Total Average	3.54	4.46	
	Performance and Expectation Mean	3.18	4.46	

Based on X value = 3.54 and Y value = 4.46 the mean score of performance and expectation is shown on table VI, as well as the axis point of IPA quadrant. Figure 4 shows the results of IPA for all dimensions and Figure 5 shows the results of IPA for the entire attributes. Empathy is on the quadrant A; Tangible and Assurance are on the quadrant B; Reliability and Responsiveness is on the quadrant C.; none of dimension is on the quadrant D.

Fig. 2. a). Importance Performance Analysis by Dimension and b) Importance Performance Analysis by Attribute

Quadrant A is a group of attributes that affect service quality as an important one but performed poorly. It consists of: 1) Satisfactory service; 2) Punctuality in promise; 3) Employee readiness in serving; 4) Care; 5) Satisfactory service; 6) Responsibility; and 7) Willingness to listen. Quadrant B is a group of attributes rated as being of high importance and delivered with high performance It consists of: 1) Clearly information; 2) Neatness in employee's dress; 3) The room are comfortable; 4) Completeness of secretariat room; 5) Cleanliness of the room. Quadrant C is a group of attributes containing variables that are low in both importance and performance. It consists of: 1) Good communication; 2) Quickness in serving; 3) Employee's respect. Quadrant D is a group of attributes including variables that are of low importance but high performance. It consists of: 1) Honesty in delivering service; 2) Ability to make solutions to problems; 3) Willingness to help; 4) Employee hospitality; 5) Employee politeness; 6) Room layout.

## 2. Conclusion

This study was conducted to deepen the understanding of user perception regarding faculty service and their level satisfaction to the faculty service. The result of the survey shows that there is a gap in service quality in the faculty service. There are several points that need to be focused in order to increase the services. The biggest gap from service quality dimension occurs in assurance, and then empathy, whereas responsiveness shares the same amount of gap after the first one and then followed by reliability, the smallest gap is the tangible. Based on every single item on the service quality, one point has the lowest score according to the gap between performance and expectation. The item is employee readiness in serving. This is indicating that the faculty services tend to be less care about students complaints.

The students are aware that the faculty service has positive impact on their facility of study. It is expected that faculty service are considered helpful and able to instill trust on them. This would encourage students and increase faculty service staff morale. The tangibility of the faculty service is performed well, employee's dress is modestly, the room is clean, comfortable, and the facility is quite complete. There is indeed potential for the secretariat to improve the service and facility to support student's learning process.

Most students are not satisfied with the empathy of faculty service staffs. The employees are considered less able to explain and provide information clearly. Friendliness and courtesy of employees are also considered bad. The faculty service should investigate this matter further and if the services are well managed then it is likely that the satisfaction of student will increase and will spread throughout all faculties in the university. The value-added service and information resources provided by faculty services are unable to be obtained from social media account because the faculty service does not own particular account to serve student's needs of information. In general, the result implies that the faculty service has

to pay more attention on empathy to the student. Faculty service must keep their promise, and always ready and have willingness to help students. Satisfaction of services emerges from each point of services that are delivered and that fulfill students' expectation.

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## The ISCLO Conference 2015

# Demand Forecasting for Perishable Asset in Importer Company (PT TMM)

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### Abstract

Gaps between sales target and their realization in perishable assets cause overstock and understock. Both of them, in the end will potentially decrease a corporate's profitability. In the last two years, there have been significant gaps between sales target and their realization in PT. Tunas Maju Mandiri (PT.TMM) as a company which has a focus in importing horticultural products. Therefore, it is necessary to make forecasting to know the number of demand in the future, so that appropriate target can be made.

Data were collected by doing a direct interview with PT.TMM and by collecting historical data on PT.TMM's perishable asset target and demand. Based on the collected data, three types of product with highest sale rates were selected; those are China apples, Thailand longans, and China oranges. After that, the data were analyzed using Microsoft Excel, Minitab, and Zaitun Time Series with various kinds of methods such as Naïve Approach, Moving Average, Single Exponential Smoothing, Double Exponential Smoothing (Holt), Triple Exponential Smoothing (Winter), and Trend Projection.

One best method was chosen to forecast the future demand. The selection of the best method was based on the lowest error rate to be shown by MAPE (Mean Absolute Percent Error). The result shows that Triple Exponential Smoothing has the lowest error rate for the three types of product, which means this is the best method to forecast the future demand of PT.TMM's perishable asset.

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Keywords: demand, forecast, horticulture, importer, perishable asset

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### 1. Introduction

PT. Tunas Maju Mandiri (hereinafter referred to PT. TMM) is a global company which focuses on importing horticulture products. Economics and politics are external factors that often affect PT. TMM business as a global company which has to be able to avoid threats and utilize chances [1]. Economic and political instability led to changes in regulations that PT. TMM have to obey. For example, as a result of the *Permendagri* (Regulation of Interior Minister) No. 7 in 2013 about opening thirteen horticulture taps as a way to stabilize horticulture products, many parties registered themselves to be horticulture importers and thus the number of the horticulture importers increased to more than 100%, from 79 importers in the first semester in 2013 to 169 importers in the next semester [2].

The increasing number of competitors can be a threat to the accomplishment of PT. TMM business objectives, whose goal of business is to get profits. This happens because customers will have more choices in selecting horticulture importers; and overall this can reduce the profitability of the company as a result of a reduced number of customers due to movement of consumers to competitors. In an attempt to gain the advantage, PT. TMM plans sales targets every month.

Often that target planning was not achieved; in the last two years there has been a 14% gap between target and actual sales, where the biggest gap occurred in China oranges (22%). That gap caused overstock which led to the company's losing money due to unsold goods stacked in the warehouses, because the nature of the horticultural products are perishable

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(easily decomposed) [3] [4] [5]. It also causes understock, i.e. the number of stock is below the number of demand. That caused PT. TMM to lose the opportunity to sell or even lose the customers. These indicate that PT.TMM has not made any optimal capacity planning. Therefore, PT. TMM needs to establish a better capacity planning in the future. This can be done by forecasting its future demand [6] [7]. There are many methods of forecasting. Yet, in general, forecasting can be done both quantitatively and qualitatively. Yet quantitative forecasting is more often used in the business world because this approach uses a set of numbers to forecast; these numbers are usually the events in the past, such as the product sales in the previous years, market surveys, or other research [8]. The most common quantitative method that is used in forecasting demand is time series method [9]. In time series method, there are several models that are often used, such as moving average, exponential smoothing, and trend projection [9]. Of these methods, the best method will be selected. The best forecasting method is a method that has the smallest deviation of the actual values [10].

A number of research have been done previously by a number of researchers to determine which forecasting method was the best in predicting a wide range of variables or objects. For instance, a research conducted by Kumar and Sahu [11] foresees demands for milk products (paneer) in Chhattisgarh; it showed that the most suitable method was single exponential smoothing. Then a research by Akkurt, et al. [12], regarding forecasting of natural gas usage in Turkey, showed that the most suitable method is the double exponential smoothing for annual forecast and SARIMA for monthly forecast. Further research, Sahu [13] showed that the naive method and semi-average method is the best method to predict sweet curd in Chhattisgarh, India. A research conducted by Candra and Sarjono [14] showed that the most appropriate method for predicting spring beds are linear regression. Research that was conducted by Daniel [15] showed that moving average method is the most appropriate method to predict the yielded production of plastic in manufacturing companies.

Those previous research indicate that the best forecasting method differs for each item or variable forecasted. Therefore, this research aims to find out the best forecasting method in foreseeing PT.TMMs products demand in the future hence PT. TMM could sell as many as the target and avoid loss that is caused by surplus or shortage of goods.

## 2. Methodology

This research is a descriptive quantitative research which aims to describe object characteristics [16] by using a set of numbers [17]. Both primary data and secondary data were used. Primary data were obtained by conducting unstructured interviews; the researchers did not use the guidelines that have been arranged, but only used the questions outlined to be asked [18] to the general manager of PT. TMM to find out about the perishable products. Secondary data were obtained with documentary study method that was done by collecting chosen documents appropriate for the goal and focus of the problem [19], such as historical data of PT.TMMs perishable asset demand and sales from February 2012 until January 201, and also all information that is related to this research. Then the collected data were analyzed using time series as a research variable. Six time series methods were used as variable attributes of this research, namely Naïve Approach, Moving Average, Single Exponential Smoothing, Double Exponential Smoothing (Holt), Triple Exponential Smoothing (Winter), and Trend Projection. The data were processed with Microsoft Excel, Minitab, and Zaitun Time Series. Microsoft excel was used to count the error rate of naïve approach method. Minitab was used to count the error value of moving average, exponential smoothing, and trend projection methods. Meanwhile Zaitun Time Series [20] was used to determine the optimum value of alpha, beta and gamma for triple exponential smoothing. After the data were processed, one best method was chosen based on the smallest error rate that would be shown by MAPE to forecast the future demand of PT. TMMs perishable assets. The model could be seen in Figure 1.1

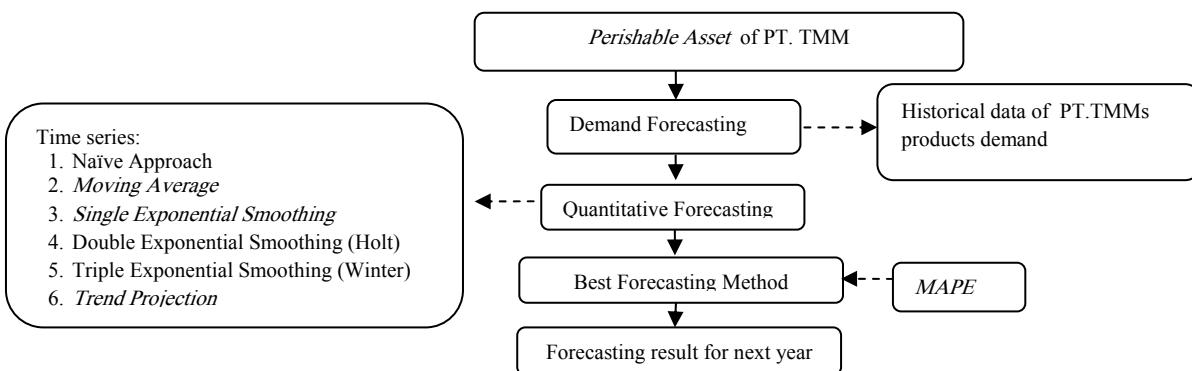


Fig. 1.1 Methodology

## 2.1. Operational Variables

**Table 1.1  
Operational Variables**

Variable	Attribute	Scale
<b>Time Series Method</b>	Naïve Approach	Ratio
	Moving Average	Ratio
	Single Exponential Smoothing	Ratio
	Double Exponential Smoothing (Holt)	Ratio
	Triple Exponential Smoothing (Winter)	Ratio
	Trend Projection	Ratio
<b>Forecasting Error</b>	MAPE ( <i>mean absolute percent error</i> )	Ratio

### 2.1.1. Naïve Approach

Naïve approach method can be done by assuming the demand in the future will be equal to the demand in the last period [9].

### 2.1.2. Moving Average

Moving average method is a method that uses the average of 'n' last period demand to forecast the next period demand. Mathematically, simple moving average is expressed as follows [9]:

$$\text{Moving Average} = \frac{\sum \text{past demand}}{n} \quad (1)$$

(n = total periods in moving average)

### 2.1.3. Single Exponential Smoothing

Single Exponential smoothing is a method whose data plots are weighted by an exponential function. The equation of single exponential smoothing is written down as follows [9]

$$F_t = F_{t-1} + \alpha (A_{t-1} - F_{t-1}) \quad (2)$$

In which:

$F_t$  = new forecast

$F_{t-1}$  = previous forecast

$\alpha$  = smoothing constant

$A_{t-1}$  = previous actual demand

### 2.1.4. Double Exponential Smoothing (Holt)

Exponential smoothing should be changed when a trend is detected. It can be done by calculating the average of exponential smoothing data, and then adjusting it with positive or negative delay (lag) in the trend, so it is also called exponential smoothing method with trend adjustment or double exponential smoothing (Holt). Here is the formula of exponential smoothing with trend adjustment [9]

$$F_t = \alpha (A_{t-1}) + (1-\alpha) (F_{t-1} + T_{t-1}) \quad (3)$$

Whereas, for trend adjustment the following equation [9] can be used.

$$T_t = \beta (F_t - F_{t-1}) + (1-\beta) T_{t-1} \quad (4)$$

In which:

- $F_t$  = forecasting with exponential which is smoothed from time series data at period of t
- $T_t$  = trend with exponential which is smoothed at period of t
- $A_t$  = actual demand in period of t
- $\alpha$  = smoothing constant for average ( $0 \leq \alpha \leq 1$ )
- $\beta$  = smoothing constant for trend ( $0 \leq \beta \leq 1$ )

### 2.1.5. Triple Exponential Smoothing (Winter)

When seasonal pattern is detected, equation needs to be modified to adjust the seasonal pattern. This method is also named exponential smoothing with seasonal adjustment or triple exponential smoothing (winter). The mathematical equation for exponential smoothing with seasonal adjustment is written as follows [10]

$$F_t = \alpha \frac{A_{t-s}}{S_{t-s}} + (1-\alpha) (F_{t-1} + T_{t-1}) \quad (5)$$

In which:

- $F_t$  = forecasting with exponential which is smoothed from time series data at period of t
- $T_t$  = trend with exponential which is smoothed at period of t

$S_t$  = seasonal estimate

p = forecasted periods

s = length of seasonality

Trend adjustment ( $T_t$ ) can be done by using this following equation [10]

$$T_t = \beta (F_t - F_{t-1}) + (1-\beta) T_{t-1} \quad (6)$$

Whereas seasonal adjustment ( $S_t$ ) can be smoothed by  $\gamma$ . The mathematical equation from seasonal adjustment can be written as follows [10]

$$S_t = \gamma \frac{A_{t-s}}{F_t} + (1-\gamma) S_{t-s} \quad (7)$$

(in which  $\gamma$  is smoothing constant for seasonal,  $0 \leq \gamma \leq 1$ )

### 2.1.6. Trend Projection

Trend projection is the method in accordance with the trend line of the data plots in the past, and it is projected into the future forecasting. In mathematics, the trend equation is written as follows [9]

$$\hat{y} = a + bx \quad (8)$$

In which:

$\hat{y}$  = calculated value from variable which will be predicted (dependent variable)

a = y-axis intersection

b = regression slope

x = independent variable

Regression slope can be known by the following equation [9]

$$b = \frac{\sum xy - n\bar{x}\bar{y}}{\sum x^2 - n\bar{x}^2} \quad (9)$$

In which:

b = regression slope

x = known independent variable value

y = known dependent variable value

$\bar{x}$  = x value average

$\bar{y}$  = y value average

n = number of data or observation

Once the value of b is known, the value of a (y-axis intersect) can also be determined by the following equation [9]

$$a = \bar{y} - b \bar{x} \quad (10)$$

### 2.1.7. MAPE

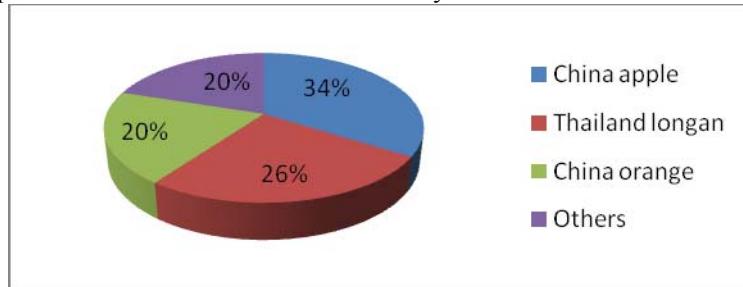
Each forecasting method certainly contains errors, namely the difference between the results of forecasting and the actual situation. Calculating forecast error aims to show how well the forecasting method works by using historical data. There are some calculations that are commonly used to calculate total forecast errors. Yet, the calculations will produce consistent results when they are used to evaluate different forecasting methods [10]. Thus, to obtain information about what forecasting method is the best, one sort of calculation can be chosen. One error calculation that is used is MAPE. MAPE (mean absolute percent error) is the average of absolute differentiation between the predicted value and the actual value, expressed as a percentage of the actual value. The equation of MAPE is written as follows [9]:

$$\text{MAPE} = \frac{100 \sum |actual_i - forecast_i| / actual_i}{n} \quad (11)$$

## 3. Results and Discussion

### 3.1. Testing Demand Forecasting Method of PT. Tunas Maju Mandiri's Perishable Asset

Testing forecasting method was done to know what forecasting method is the most appropriate to forecast the perishable asset. The best method is the method that has the lowest error rate. Forecasting is made for the products that dominate company product's sales, namely; China apples, Thailand longans and China oranges. Other products were not forecasted because the proportion was small and there were so many variations that a classification process is difficult to do.



**Figure 4.1**

Percentage of PT Tunas Maju Mandiri's Imported Fruit Sales February 2012 – January 2014 Period

Figure 4.1 shows that the sales are dominated by China apples, followed by Thailand longans and China oranges. The rest are a wide range of products, which is 20% of the total sales. From the various fruits that are sold, there is a gap between the target and actual sales. The target, sales and gap can be seen in Table 4.1

**Table 4.1**  
Target and Actual Sales PT. TMM period February 2012-January 2014

Product name	Target	Sales	Gap
<b>China apples</b>	52,535	49,288	6%
<b>Thailand longans</b>	41,820	36,918	12%
<b>China oranges</b>	35,935	28,041	22%
<b>Others</b>	35,820	28,114	21%
<b>Total</b>	<b>166,110</b>	<b>142,361</b>	<b>14%</b>

Source: PT. TMM document

Based on Table 4.1 it can be seen that during the last two years, there has been 14% gap between the target and actual sales. Therefore, a better capacity planning has to be made in the future to minimize the gap. Based on the calculation using Microsoft Excel, Minitab 16, and Zaitun Time Series, forecasting error rate of each method can be determined. The rates can be seen in Table 4.2.

**Table 4.2**  
Comparison of Forecasting Methods Error Rate (MAPE)

Forecasting Method	China apples	Thailand longans	China oranges
<b>Naïve Approach</b>	38%	25%	47%
<b>Moving Average</b>	21%	21%	43%
<b>Single Exponential Smoothing</b>	31%	24%	48%
<b>Double Exponential Smoothing (Holt)</b>	35%	23%	46%
<b>Triple Exponential Smoothing (Winter)</b>	11%	11%	17%
<b>Trend Projection</b>	29%	23%	48%

Based on Table 4.2 it can be seen that in predicting the demand for PT.TMMs China apples, Thailand longans, and China oranges, triple exponential smoothing (winter) is the method that has lowest error rate (MAPE). Thus, this method is the most appropriate to forecast the products in the future. However, the error rate of the method in predicting China apples (11%) was greater than the gap between the target and the sales of China apples (6%). This means this method is not better than the capacity planning effort done by PT. TMM previously, namely by intuition. However, the results are still taken into consideration in the company's decision-making. The results of demand forecasting by using a triple exponential smoothing (winter) can be seen in Table 4.3

**Table 4.3**  
Forecasting results for Perishable Asset February 2014-January 2015

Month	China apples	Thailand longans	China oranges
<b>February</b>	2,955	2,022	1,744
<b>March</b>	2,177	1,443	1,488
<b>April</b>	1,916	1,087	866
<b>May</b>	1,728	1,221	660
<b>June</b>	1,599	1,347	880
<b>July</b>	2,800	1,988	1607
<b>August</b>	3,353	2,508	2,199
<b>September</b>	1,362	1,303	747
<b>October</b>	1,381	1,192	558
<b>November</b>	1,992	1,351	682
<b>December</b>	2,642	1,634	1,274
<b>January</b>	2,146	1,616	1,342
<b>Total</b>	26,051	18,712	12,706

Based on Table 4.3, it can be seen that the demand of PT. TMM perishable assets during February 2014 - January 2015 period would fluctuate, where the highest demand was for China apples, Thailand longans, and China oranges that would occur in August. In this period, China apples sales is predicted to reach 26,051 boxes, 18,712 boxes Thailand longans and 12,706 boxes China oranges.

## 4. CONCLUSION AND RECOMMENDATION

### 4.1. CONCLUSION

- 1) Based on the calculation of error rate from each forecasting method for each product, the result shows that in the case of China apples, the gap is already smaller than the lowest error rate of the forecasting methods, and thus the prediction done by PT.TMM using intuition is the most appropriate method to forecast the demand for Chinese apples. Yet, for the other two products, Thailand longans and China oranges, triple exponential smoothing method (winter) has the smallest error rate. Thus, triple exponential smoothing method (winter) is the most appropriate method to forecast Thailand longans and China oranges in February 2014 - January 2015 period.
- 2) Based on the data processing, it can be seen that during February 2014 - January 2015 period, the demand for China apples will reach to 26,051 boxes, Thailand longans will reach 18,712 boxes and China oranges will reach 12,706 boxes. During the forecasting period, the demand will fluctuate, where the highest demand for China apples, Thailand longans, and China oranges will occur in August, while the lowest demand for those three products will occur in May

### 4.2. RECOMMENDATION

- 1) Based on the result of the data processing, PT TMM should make demand forecasting using *triple exponential smoothing (winter)* for the perishable products as a means to minimize the forecasting error and risk of loss that are caused by uncertainty in the future. Moreover, that means is easy, fast, and objective to be used and therefore PT.TMM could make good forecasting of their products.
- 2) Further research should consider other variables that might affect the sales of PT.TMM perishable assets, such as weather, and macroeconomic factors.

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The ISCLO Conference 2014

## Do Malaysian Managers Understand the Learning Organization Concept? A Case Study of Malaysian Bankers

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### Abstract

The aim of the paper is to present findings on the perceptual understanding of managers on the concept or construct of learning organization. Learning organization concept has been around in the literature since the early 1990s. Many studies have been conducted worldwide. Some agrees with it while others have their doubts. Grieves (2008) has even questioned the wisdom of retaining the concept. The researcher believes that there is much that we do not know. In developing countries (including in Malaysia), there are still a lot of interest in it. This study reflects the need for further research in the area. The sample was 20 Malaysian bank managers. In-depth interviews conducted spanning a week with each interview that takes one hour to complete. An interview protocol of 10 broad questions were created based on issues raised by quantitative scholars through their long tested instrument called the 'Dimensions of Learning Organization Questionnaire' (DLOQ) developed by Marsick and Watkins (2003). The findings were audio-taped and transcribed. The general findings were that the interviewed bankers knew the word 'learning organization'. They were eager to embrace the concept as it encourages innovation and employee commitment. But there were no conscious efforts by the top management of their respective institutions to translate it into reality through incorporating it into their strategic plans or bank policies. It is concluded that generally the bankers who were interviewed did not fully understand or appreciate the concept and its potential benefits.

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**Keywords:** Bank, case study, learning organization, Malaysia, qualitative study

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### 1. Introduction

The banking sector in Malaysia is one of the most dynamic sectors in Malaysia and possibly in South East Asia. It is the backbone of Malaysia's economy. In spite of the scenario for global financial markets and world economic being gloomy, the financial health of the commercial banks operating in Malaysia is sound. The Association of Banks in Malaysia (ABM) representing the banks feels that commercial banks in Malaysia are in a strong position to execute their responsibilities and support domestic economic activities.

The Malaysian Central bank strict monitoring and control has ensured that the Malaysian banking industry has been to a large extent insulated from the global financial crisis. The experience gained from the 1997-98 Asian financial crisis and the reforms undertaken thereafter have significantly strengthened the banking industry. But as banking organizations, whatever they enjoy in the first decade of the 21<sup>st</sup> century could be attributed to good management practices. One of the management concepts espoused by scholars since the 1990s is the concept of learning organization which can be a strategic tool for achieving success by any organization. The question posed in this paper is that have the banking institutions in Malaysia practiced the learning organization concept in their business and are the bank mangers (both top managers and functional managers) aware of the benefits of practicing the learning organization concept?

### 1.1. Definitions of Learning Organization

Over time, there have been several definitions of learning organization that have been developed by scholars. But this paper would like to highlight just five prominent definitions which have been widely cited (Table 1). The concept of learning organization was made popular through Peter Senge's (1990) publication called 'The Fifth Discipline'. He defined learning organization as an organization which encourages continuous learning among its employees. Other scholars (Garvin, 1993; Moilanen, 2005; Pedler *et al.*, 199; Watkins & Marsick, 1996) added other elements such as the existence of learning culture and transformation among the organization's members on a continuous basis that would assist in the practices of a learning organization.

Table 1 Sample definitions of learning organization

<b>Author</b>	<b>Definition of learning organization</b>	<b>Learning organization constructs</b>
Senge (1990)	An organization where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn	Personal mastery Mental models Shared vision Team learning Systems thinking
Garvin (1993)	An organization skilled at creating, acquiring and transferring knowledge and at modifying its behavior to reflect new knowledge and insights	Systematic problem solving Experimentation Learn from past experience Learning from others Transferring knowledge
Pedler <i>et al.</i> (1991)	An organization that facilitates learning for all its members and consciously transforms itself and its context	A learning approach to strategy Participative policy making Informating Formative accounting and control Internal exchange Reward flexibility Enabling structures Workers as environmental scanners Intercompany learning Learning climate Self-development opportunities
Moilanen (2005)	A learning organization is a consciously managed organization with learning as a vital component in its values, visions and goals as well as in its everyday operations and their assessment	Driving forces Finding the purpose Questioning Empowering Evaluating
Watkins and Marsick (1996)	An organization that is characterized by continuous improvement and the capacity to transform	Continuous learning Dialogue and inquiry Team learning Embedded system Empowerment Leadership Financial performance Knowledge performance

Source: Sharifrad (2011), p. 664.

### 1.2. The Development of the Studies on Dimensions of Learning Organization Questionnaire (DLOQ)

There are several tools which have been developed by researchers to measure elements of learning organization (Sharifrad, 2011). But for this paper, the focus is on the tool called "Dimensions of the Learning Questionnaire" (DLOQ),

which was introduced by Watkins and Marsick (1998). It is organized into five sections emphasizing individual level, team level and organization level learning and measuring the financial performance of the organization, with the last section gathering information about the organization and the role of respondents in that organization. The questionnaire is organized around seven dimensions:

1. Creating continuous learning opportunities;
2. Promoting inquiry and dialogue;
3. Encouraging collaboration and team learning;
4. Establishing systems to capture and share learning;
5. Empowering people towards a collective vision;
6. Connecting the organization to its environment;
7. Modeling/supporting learning as well as measuring financial and knowledge performance (Marsick & Watkins, 1999, p.50).

The instrument was intended to gauge the perceptions of employees regarding these seven constructs at a particular point in time, i.e. take the pulse of an organization at that time. According to Jamali, Sidani and Zouein (2009), based on their review of the seven measurement instruments, they found that the DLOQ of Watkins and Marsick (1998) meets the criteria of comprehensiveness, depth and validity. But the DLOQ had been revised many times and scientifically validated to be reliable (Marsick & Watkins, 2003; Yang, 2003).

### *1.3. The Research Framework*

For a qualitative study, it is not usually necessary to have a research framework. But a guiding framework could be helpful in guiding the researcher's thinking (Creswell, 2013). In this study, the guiding framework looks as the concept of learning organization as the dependent variable and the respondent's demographics as the independent variable (Figure 1).

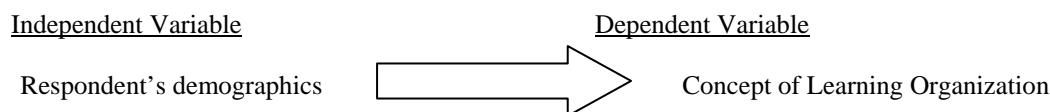


Figure 1 the Guiding Framework

## **2. Method**

The study had adopted the qualitative case study method to investigate the learning organization phenomenon among Malaysian bankers. Creswell (2013) stated that the case method is suitable for studying in-depth issues. The qualitative case study is a method which involves in-depth interviews with identified respondents or interviewees in their natural setting. According to Yin (2009), "... as a research strategy, the case study is used in many situations to contribute to our knowledge of individual, group, organizational, social, political and related phenomena" (p.1). The sample was 20 Malaysian bank managers of banks located in northern Peninsula Malaysia. The banks were Malayan Banking, Public Bank, Ambank, RHB Bank, CIMB Bank, Affin Bank, Alliance Bank, Citi Bank, HSBC Bank and Bank Islam. In-depth interviews were conducted spanning a week with each interview taking one hour to complete. An interview protocol of 10 broad questions were created based on issues raised by quantitative scholars through their long tested instrument called the 'Dimensions of Learning Organization Questionnaire' (DLOQ) developed by Marsick and Watkins (2003)(see Table 2 for the List of Questions). The findings were audio-taped and transcribed.

Table 2 List of Ten Questions

No.	The Questions
1	Are you familiar with the word ‘learning organization’?
2	Where did you first hear about the word?
3	What does it mean?
4	Is it listed formally in your organization’s strategic plan? If Yes, since when?
5	Even if it is not in your strategic plan, is it part of the practice in your organization?
6	Are you supportive of the idea of the learning organization? Why?
7	Do you think your senior management knows about the concept of a learning organization?
8	Do you think your senior management is supportive of the idea of a learning organization? Why?
9	Are you willing to champion the concept of learning organization in your organization should you have the opportunity to do so? Why?
10	Which learning organization are you aware of?

### 3. Results and discussions

#### 3.1 Profile of Respondents

There were 20 interviewees from ten commercial banks located in northern Peninsula Malaysia (two from each bank (Table 3). From the 20 interviewees, four were female managers. In terms of ethnic group, all were Malays. The interviewees were in the 30 to 40 year-old age group. In terms of qualification, 19 had a bachelors’ degree and one had an MBA degree. In terms of banking experience, these bankers had between five to fifteen years of experience. They were the right people who would know the management practices of their respective organizations.

Table 3 General Profiles of the Interviewees

No.	Item	Result	Total Interviewee
1	Gender	4 Females; 16 Males	20
2	Ethnic Group	20 Malays	20
3	Age group	30 to 40 years old	20
4	Qualification	19 bachelor’s degree; 1 MBA	20
5	Experience	5 – 15 years	20

#### 3.2 Familiarity with the Word ‘Learning Organization’

All of the 20 interviewees claimed that they knew about the word ‘learning organization’. But the depth of their knowledge differs. The two managers of the banks which had the ‘learning organization’ incorporated in its strategic plan were quite knowledgeable about the concept of ‘learning organization’. Others knew about the meaning of the word through various means like from television, newspapers and the internet. But they seemed to interpret that the learning organization practices were about training of employees at various levels.

#### 3.3 The Meaning of Learning Organization

Two interviewees answered the question correctly. But the other 18 seemed to relate the learning organization to mainly training of employees (Table 4).

Table 4 Meaning of Learning Organization

No.	Name of Bank (coded)	Reply
1	Bank A	It is an organization which encourages learning among employees continuously...
2	Bank A	It is an organization that nurtures learning among its employees on a continuous basis...
3	Bank B	Organization which invests a lot in training of employees...
4	Bank B	Organization which emphasizes employee training...
5	Bank C	...Training of employees is important to that organization...
6	Bank C	Organization which likes the training of employees...
7	Bank D	Organization with training of workers in mind all the time ...
8	Bank D	Organization that focuses on employee training...
9	Bank E	It is an organization with training focus...
10	Bank E	Organization with employee training in mind...
11	Bank F	It is an organization that emphasizes on training of workers ....
12	Bank F	Organization with employee training as the aim...
13	Bank G	Organization that is interested in employee training...
14	Bank G	Organization with training of employees in mind....
15	Bank H	Organization that wants to train employees all the time...
16	Bank H	Organization with employee training as its goals...
17	Bank I	Organization that is interested in improving employee skills through training...
18	Bank I	Organization that wants skilled workers through training...
19	Bank J	Organization that focuses on training of skilled employees...
20	Bank J	Organization which is interested in always improving the skills of employees by training them all the time...

### *3.4 Support of the Idea of Learning Organization*

The 20 interviews gave a unanimous answers that they like the concept of learning organization for the benefits it would give to increase employee commitment and motivation at work and they would support its implementation in their organizations (for banks which did not yet incorporate the learning organization concept into their respective strategic plans).

### *3.5 Awareness of Top Management on the Concept of Learning Organization*

According to the 20 interviewees, they believed that all of their top management (or senior management) were aware of the concept of the learning organization. But only the top management of one bank had put the idea into practice by incorporating it into their strategic plan. The top management of the other nine banks, however, did not give much emphasis on the learning organization concept in their operations.

### 3.6 The Interviewees' Knowledge of the Learning Organization Model

Two interviewees mentioned the Learning Organization model created by Senge (1990). The other 18 interviewees either stated that they did not know or they mentioned the model by Peter Drucker. As Drucker, a famous professor of management, did not create any learning organization model during his lifetime (1909 – 2005) (Denning, 2014), this showed that many among the bankers who were interviewed did not know much about the learning organization models.

## 4. Conclusion

Generally the 20 respondents who were interviewed claimed that they knew about the concept of learning organization. However, only two respondents from the same bank stated that the concept was formalized in their organization's strategic plan. The other nine banks did not incorporate the learning organization concept in their strategic plans. Nevertheless all the ten banks seemed to record excellent financial performance in the last ten years. This implied that most of the ten banks did not focus on the learning organization concept. Probably they were using other business models that could give them good returns. For now, they are making good returns. But banking is not just about making money for a period of time. It is about continuous performance (Wolf, 2008) and sustainability (Fenwick, 2007). In the long run, the business of banking is about fulfilling employees' needs, customers' needs and staying competitive in the growing globalized environment in order to survive. A model which can help a bank to adjust quickly to the changing environment is very important. It has been recognized by many banking scholars and practitioners worldwide that the learning organization is one of the most effective models which can keep banks to remain competitive (Dymock & McCarthy, 2006; Nazari & Lope Pihie, 2012; Ortenblad, 2004; Rowley & Gibbs, 2008; Yeo, 2005). It is recommended that the Malaysian banks give the learning organization concept a chance.

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## Exploratory Study on Learning Organization: A Case Study in Faculty of Economics of a Private University in Jakarta, Indonesia

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### Abstract

University is a centre of knowledge that produces both ideas and thinkers. However, can such an institution be automatically called learning organization? Learning is, according to Senge (1990), the only means of survival in this changing world,. In a hierarchical organization such as a faculty, many things interfere with the learning process, just as other types of organization. The reason Faculty of Economics was chosen for this study was the fact that it is the oldest and largest faculty in the university it belongs to. This paper attempts to study whether or not the Faculty of Economics is a learning organization based on Senge's five disciplines. This paper used both qualitative and quantitative approaches to explain the learning organization in the context of educational institution. The method of data collection was through surveys and in-depth interviews. The questionnaire was based on Neefe's (2001) and the interview was based on Senge's (1990). The respondents were both academic and administrative employees of the faculty, to provide a broader view. According to the quantitative approach, most respondents agreed that the faculty of Economics is a learning organization. However, the qualitative approach resulted in a fairly different conclusion. While the first approach shows the concept of learning organization, the latter shows that things are not as they seem since there are forces that drive the system in an invisible way. Indeed, both approaches complement one another, providing a wholesome image of the faculty. This research was started with the quantitative approach, and then complemented by the qualitative approach. The findings also show that a system thinking is the most fundamental discipline but it is still greatly affected by the mental models of the faculty members.

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**Keywords:** Learning Organization; Learning in University; Organizational Culture.

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### 1. Introduction

In the 21<sup>st</sup> century, every aspect of humanity has been developing rapidly, leading to many changes in various aspects. This fact affects every organization and individual in the process of the change itself. Change is something that can contribute toward progress, but it is also a threat that may lead one to failure. Universities as a form of organization are not immune to this fact. A number of universities in Indonesia alone have been declared bankrupt due to their inability to sustain themselves. Many factors affecting these, among others, are: their inability to meet the standards imposed by the government, inability to compete in a highly competitive higher education industry, and failure to attract new students as a source of funding. As an independent organization that has to generate profit to survive, a university, especially that of private owned, has to discover its own competitive advantage and amplify it in order to survive and stay in the competition.

Atma Jaya Catholic University of Indonesia (THE UNIVERSITY) is one of the major private universities in Jakarta, Indonesia. It is shown by its achievement in the past and how the survey shows public trust toward the institution. At its maturity age, THE UNIVERSITY as one of the major universities in Indonesia has been through many obstacles and stays competitive. Yet, surviving today does not mean surviving tomorrow. THE UNIVERSITY still faces threats imposed by changes. In THE UNIVERSITY, the Faculty of Economics is the oldest and largest faculty, which reflects the university in term of age and size. As said by Marquardt (2002), old and big organizations tend to be like dinosaurs: slow and rigid, fragile toward changes.

According to Senge (1990), learning is the only means of survival in the changing world, while de Geus (1988) stated

that the ability to learn faster than your competitors might be the only sustainable competitive advantage. According to Kapp (1999), a learning organization is a group of people who have woven a continuous, enhanced capacity to learn in the corporate culture, an organization in which learning processes are analyzed, monitored, developed, and aligned with competitive goals. A learning organization generates knowledge and learning faster than competitors do and turns that learning into a strategic advantage to outmarket, outmanage, and outsell competition. This is why it is very important for an organization to be learning, especially an organization that was intended to generate ideas and innovation. In this way, this study attempts to explore learning in one of the major universities in Indonesia.

## 2. Theoretical Background

Learning is very important in university. This process also includes the process of finding mistakes and a chance of recovering and reformation (Argyris and Schon, 1996). Neefe in her 2001 study compared six literatures and found a common theme among the six literatures (Senge, ASTD; Bennet&O'brien; Gephart&Marsick; Goh, Kaplan & Norton; and Gavin) to describe learning organization in university. She found that from fifteen characteristics proposed by the six literatures (Personal Mastery, Mental Models/Culture/Climate, Shared Vision/Mission, Team Learning, Training, System Thinking, Leadership, Management/Executive Practices, Communication Systems, Information, Knowledge, Structure, Change Facilitation, Work Processes, Rewards & Recognition, and also Performance Management), there are six elements that emerge consistently in most of the literatures, which are: Leadership, Shared Mission/Vision, Teamwork and Team Learning, Organizational Culture, System thinking, and Employee Skills & Capabilities. While Neefe compared 6 literatures to find this theme, she also included Senge's five disciplines in her source. The researcher found that Neefe and Senge share a unique perspective. While Senge spoke of organization of any type in general, Neefe focused the topic only on the universities. Inspecting Senge's five disciplines, Senge used a different term for each discipline, namely: Personal Mastery (Employee Skills and Capabilities), Team Learning (Team work and learning), Mental Models (Organizational Culture), while the Shared Vision and System Thinking are still the same. One element that is missing in Senge and found in Neefe is Leadership. Neefe's research shows that in an educational institution such as university, leadership deserves to be independent, while Senge's five disciplines show that leadership has to be embedded onto each discipline.

There were many literatures written on the theme of measuring Learning Organization application. Sari (2012) conducted a research on Learning Organization Application in PT XL AXIATA, using qualitative methods. There are others as well that were conducted on the education industry using quantitative approach such as Navehebraim & Badakhshan (2013) and Veisi (2010). Quantitative measurement tools for learning in higher education institutions, however, are lacking. As seen in the said literatures, most researchers utilized widely used questionnaire constructed for organizations in general, and then modified the questionnaire to fit their need.

## 3. Methods and findings

This research was conducted on two different approaches in order that it will provide a broader view of learning organization in the Faculty of Economics by complementing each other. Quantitative approach was conducted first, providing a descriptive study of learning at the surface level of the faculty. The qualitative approach was conducted to provide many explanations about what emerged on the surface and how it came to emerge. Then, both approaches were combined, providing a whole image of the faculty as a learning organization.

### 3.1. Faculty of Economics as a Learning Organization (Quantitative)

The descriptive study of Faculty of Economics as a learning organization was conducted by collecting questionnaires. The questionnaire used in this approach was based on Neefe's Organizational Learning Questionnaire (2001). She based her questionnaire on Learning Organization Survey developed by Goh and Richards and modified the said questionnaire for university use. The population for this study was academic and administrative staffs of Faculty of Economics ( $N=103$ ). From the population, a sample size was taken based on Harry King's nomogram ( $n=34$ ). The sampling method was the stratified random sampling. The strata consist of academic staffs and administrative staffs. The questionnaire for this study consisted of 31 items that were divided into 6 sub-systems of learning organization, which are Leadership, System Thinking, Mission/Vision Statement, Employee Skills and Capabilities, Team Work and Team Learning, and Organizational Culture. A five-point, Likert-type Scale (1-5) was used to indicate the degree of agreement toward the statements. To describe the findings, Overall Mean Score (OMS) was used. Cronbach Alpha of the questionnaire scored 0.926, which was greater than 0.70; thus, it can be said reliable. For the OMS itself, class intervals will be used to explain

the degree of agreement of the respondents toward the statements. The class intervals are as such: 1.00-1.80 (Highly Disagree), 1.81-2.60 (Disagree), 2.61-3.40 (Neutral), 3.41-4.20 (Agree), and 4.21-5.00 (Highly Agree).

According to the demographic data, the majority of the respondents are between 36-40 years old with a total of 8 persons (23.5%). In term of the sex of the respondents, we can see that the majority are males with a total of 20 persons (58.8%). Most of the staff have worked for the University for 21-25 years (10 persons that occupy 58.8% of total) and the same goes for the duration of work in the Faculty of Economics (10 persons that occupy 29.4% of the total). Respondents were divided into 2 categories based on the work types, which are; administrative and academic staff. The respondents consisted mostly of academic staff, totaling 26 persons (23.5%). Lastly, the respondents are mostly studying at the graduate degree program (20 persons that occupy 58.8% of the total), as stated by the state that in order for one to be permitted to teach, one has to possess a graduate level education.

The result of the descriptive study itself can be observed as follows:

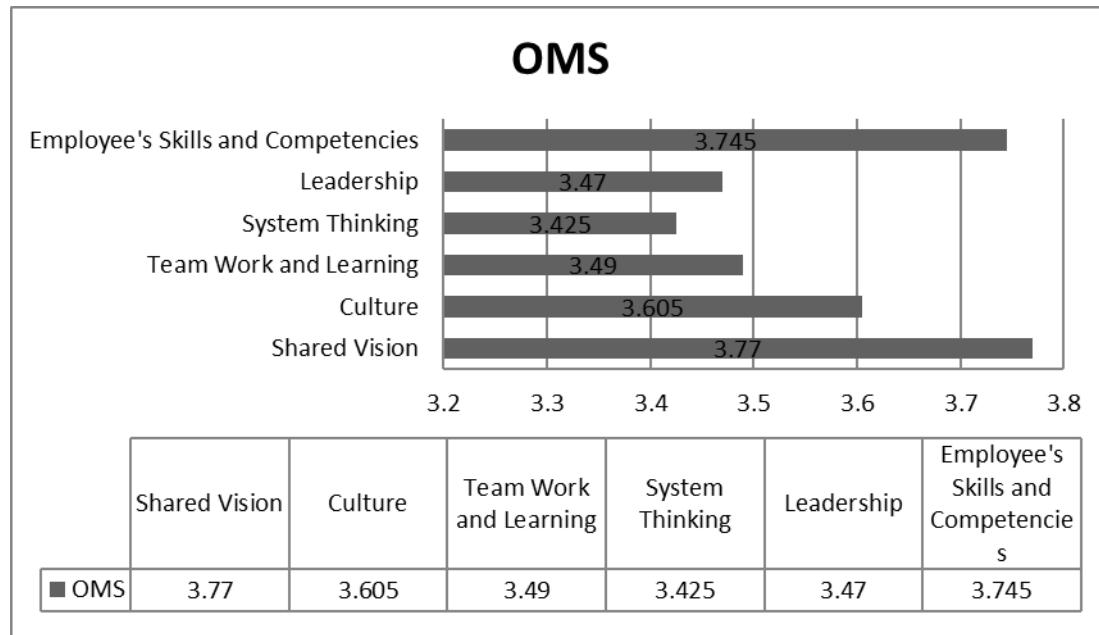


Fig. 1. Overall Mean Score

From the figure, we can compare the data measurement with the class interval. Thus, the data shows that in all of the six sub-systems, the respondents agree that the faculty of economics is a learning organization, based on Neefe's 6 subsystems. Here are figures of each subsystem:

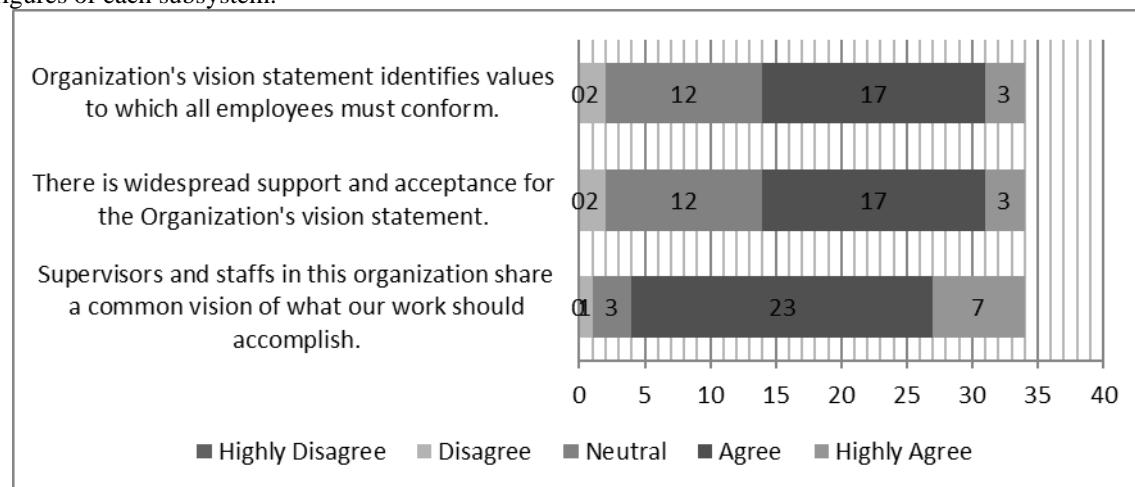


Fig. 2. Shared Vision/Mission

According to the overall mean score for the sub-system of shared vision/mission (3.77), it can be argued that the respondents agree that Shared Vision exists, promoting learning to exist in the Faculty of Economics. This finding reflects that perception of the respondents toward shared vision and its ability to promote learning is positive.

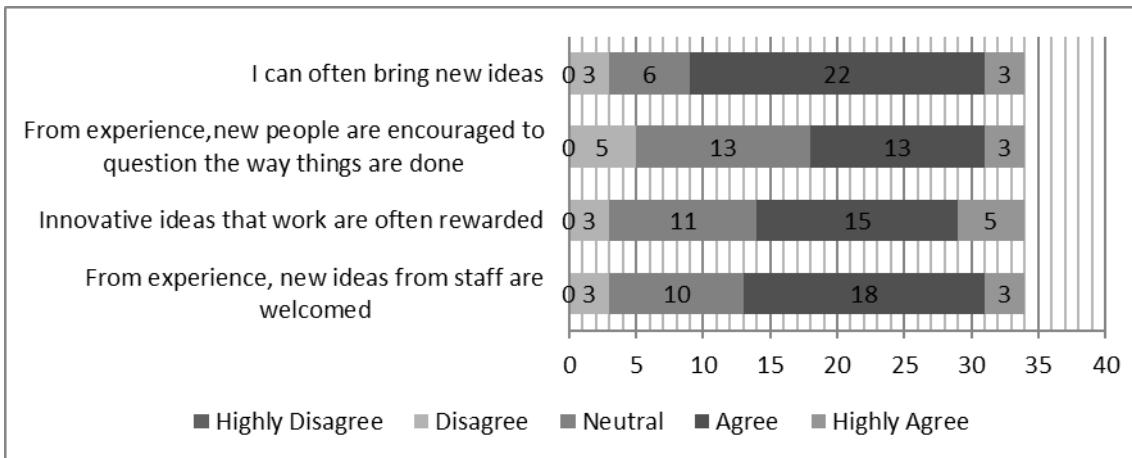


Fig. 3. Organizational Culture

According to the overall mean score of the subsystem of organizational culture (3.605), it can be argued that the respondents agree that the organizational culture that promotes learning exists in the Faculty of Economics. This finding reflects that the perception of the respondents toward organizational culture and its ability to promote learning is positive.

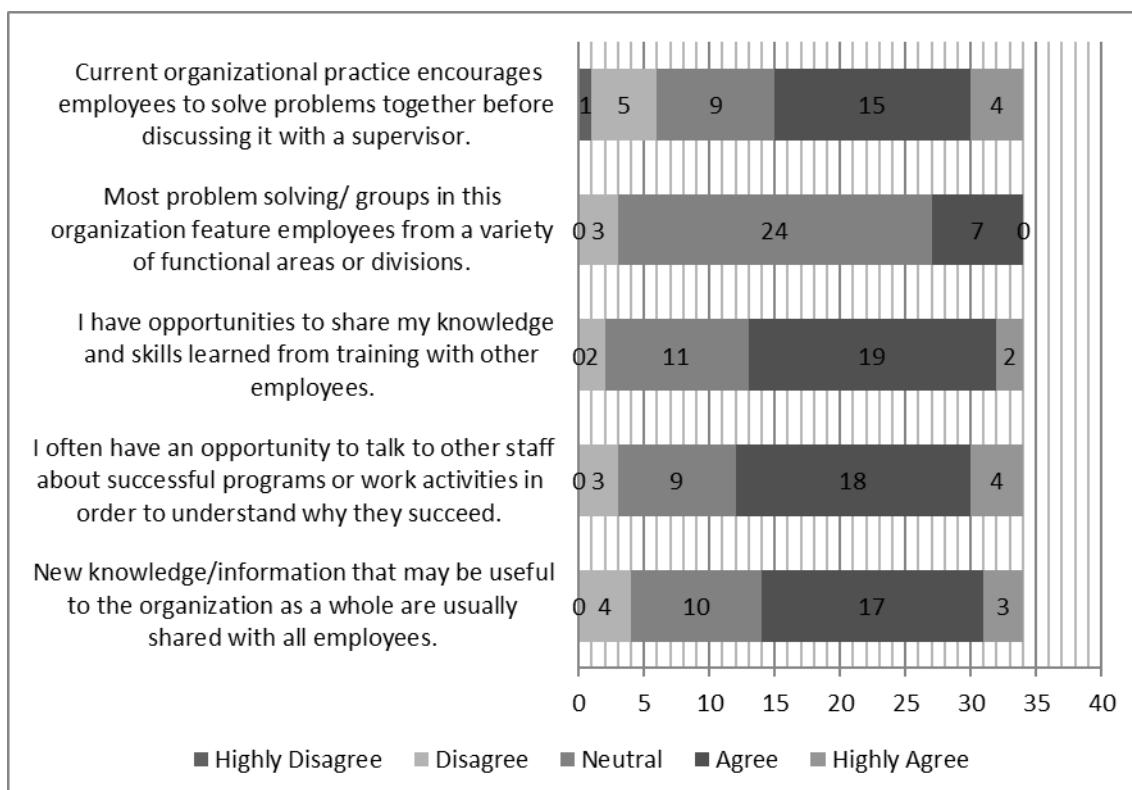


Fig. 4. Team Work and Team Learning

According to the overall mean score of the subsystem of team work and team learning (3.49), it can be argued that the respondents agree that team work & team learning that promote learning exists in Faculty of Economics. This finding reflects that the perception of the respondents toward team work & team learning and their ability to promote learning is positive.

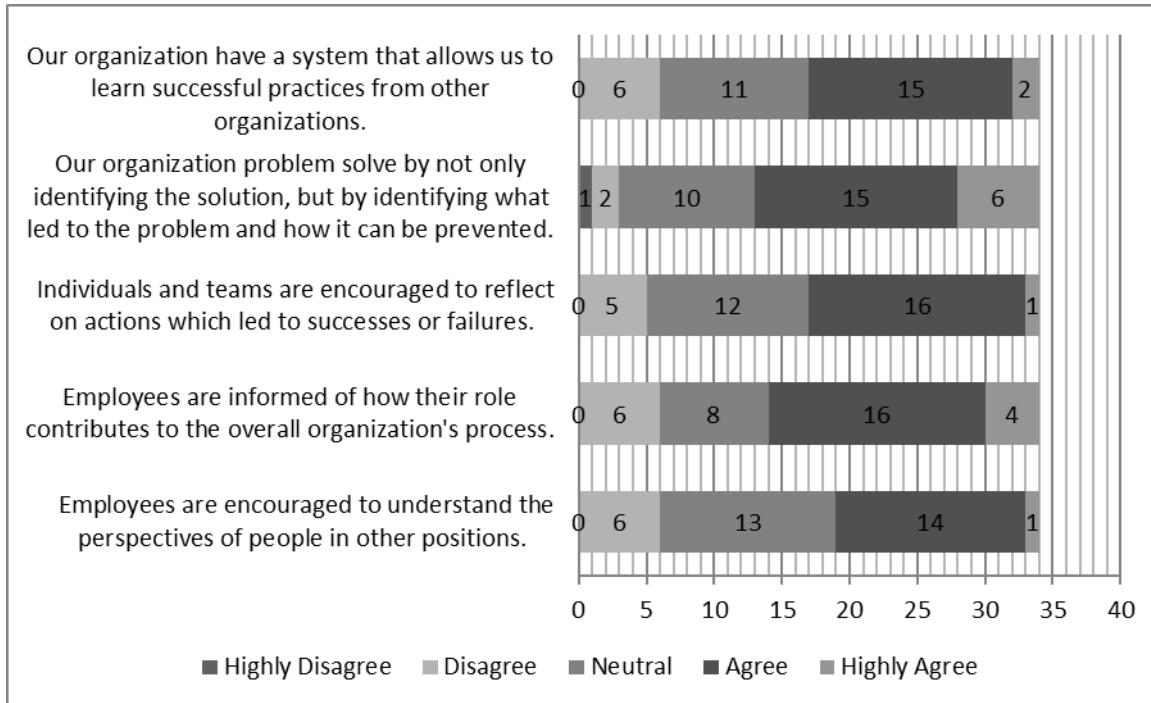


Fig. 5.System Thinking

According to the overall mean score of the subsystem of system thinking (3.425), it can be argued that the system thinking exists in the Faculty of Economics and it promotes learning. This finding reflects that the perception of the respondents toward the system thinking and its ability to promote learning is positive.

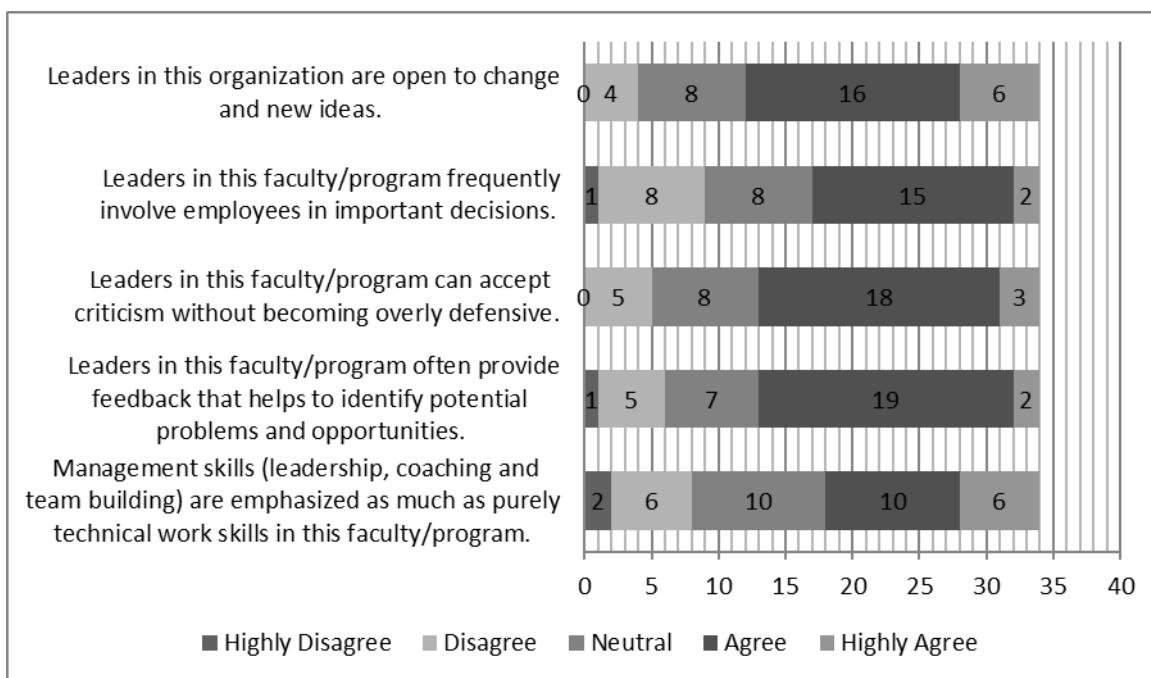


Fig. 6.Leadership

According to the overall mean score of the subsystem of leadership (3.47), it can be argued that the respondents agree that leadership that promotes learning exists in the Faculty of Economics. This finding reflects that the perception of the respondents toward leadership and its ability to promote learning is positive.

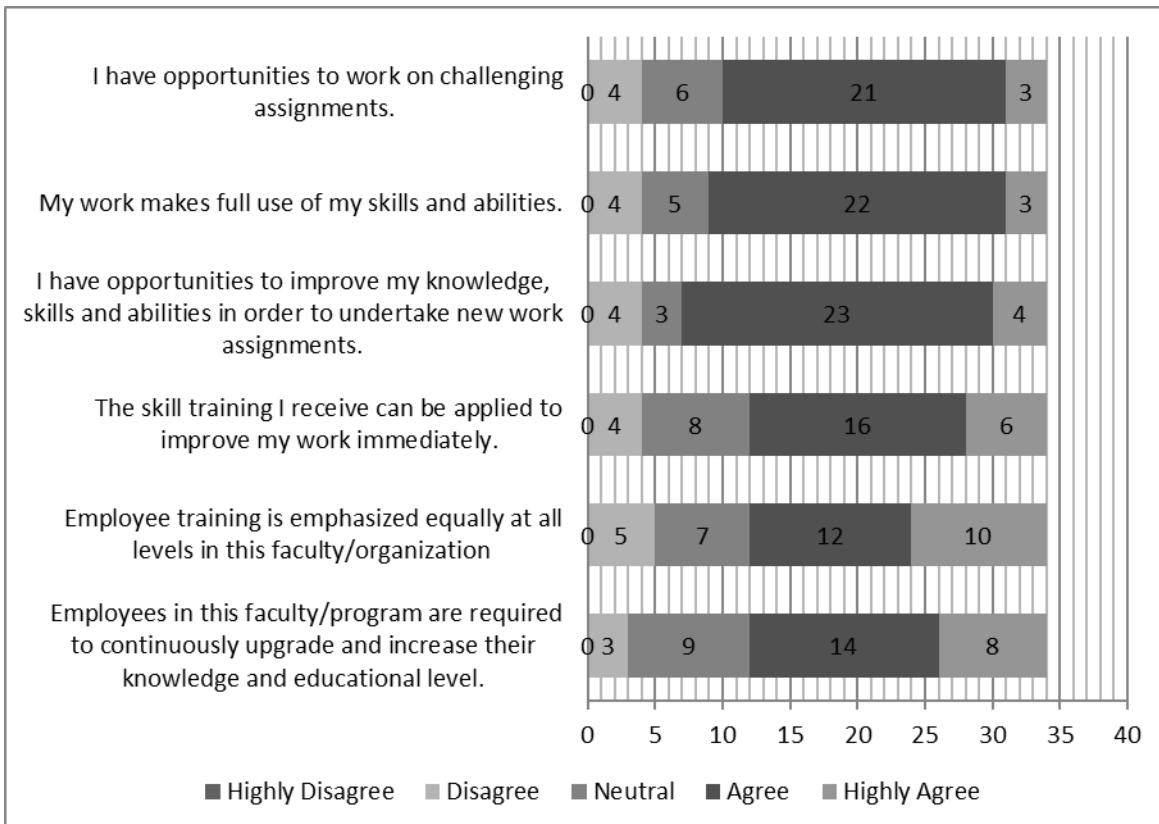


Fig. 7.Employee's Skills & Competencies

According to the overall mean score of the subsystem of employee's skills and competencies (3.475), it can be argued that the respondents agree that employee's skills & capabilities that support learning exist in the Faculty of Economics. This finding reflects that the perception of the respondents toward employee's skills & capabilities and their ability to promote learning is positive.

Hence from the quantitative findings described above, it may be concluded that faculty of economics is a learning organization based on perception of the faculty members. The findings shows perception on the surface level and thus need to be complemented with deeper understanding

### 3.2. Faculty of Economics as a Learning Organization (Qualitative)

The qualitative study of Faculty of Economics as a learning organization was conducted by initially performing semi-structured interviews. The interviews were guided by an interview guideline which the researcher constructed based on Senge's five disciplines (1990), namely: System Thinking, Mental Models, Shared Vision, Personal Mastery, and Team Learning. The sampling method used is judgmental sampling method, based on the researcher's judgment. The sample consisted of six academic staffs of the faculty. All of the respondents have been in the university, specifically in the Faculty of Economics for at least 8 years. Two were females and four of them were males. Two of the six served the faculty in structural positions. The analysis was based on Miles and Huberman's three current flows of activity in the data analysis (1994). The researcher interpreted the activity and constructed three analysis steps, started with t0 table which contains a summary of the respondents' responses toward each question. Then, t1 table was constructed, containing generalization of the response of each question. The last one was t2 table which contained generalization of themes and responses, resulting in general theme for each discipline. The result is then displayed as follows:

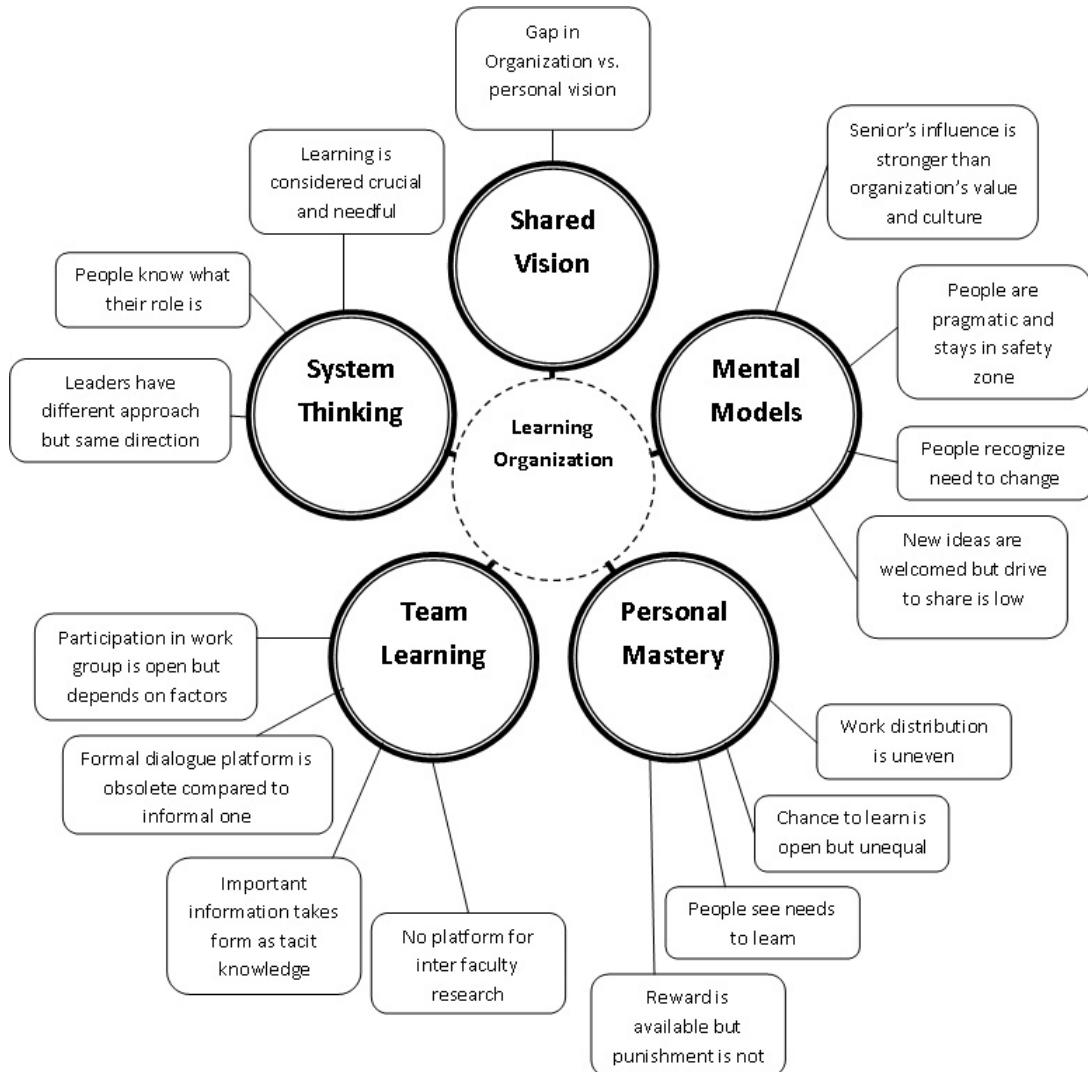


Fig. 8. Learning Organization Characteristics in the Faculty of Economics

After the figure was created, we can observe that in a qualitative approach, there are findings in the deeper level of perception. Interviews enabled the respondents to freely explain their perspective, providing richer information. From the figure, we can see that of the entire general theme in each discipline, not all of them actually supports learning. Each theme provides positive or negative magnitude toward learning. The explanations for findings are as follows:

### 3.2.1 Shared Vision

The finding shows that there is a gap between organizational vs. personal visions in the Faculty. In the Faculty of Economics, from what were found in the semi structured interviews, it seems that almost all of the respondents had no idea about the vision and mission of both the university and the faculty. In term of the university's vision, it might be acceptable since the academic staff usually work under the faculty and do not have much interaction with the university, except for those who are holding certain positions. The faculty's vision and mission are derived from those of the university's, and in the Faculty the vision and mission are translated into a set of goals. The academic staff know about the goals, but they do not know about the vision. The researcher tried to ask the respondents, and almost all of them said that they did not memorize it and tried to explain what kind of direction they have according to their interpretation. Instead of mentioning any value of the vision and mission, most of them mentioned the goals and university's principle which were set around two years ago. The researcher assumes that this phenomenon happens because the vision and mission statements are considered far away in the future and are unrelated with the daily operation. The reason why most respondents recognize the principle might be that the principle is new and was created during their employment, socialized to every staff, and easy to remember.

This discipline displays negative magnitude toward learning because learning is enforced by the shared vision only if the organization members adopt the organization's vision.

### ***3.2.2 Mental Models***

The findings show that senior faculty members have a stronger influence on new recruits, compared to those of organization's value and norms. Not only that, the interview also reveals that people tend to be pragmatic and stay in a safety zone. But lately, people realize the need to change their behavior and mental models. The interview also shows that new ideas are welcomed, but the drive to share is low among the faculty members. Mental models in the Faculty of Economics are not only individual ways of thinking as a part of the organization, but instead it is a culture that is accepted by the majority of the faculty members and rapidly absorbed by new recruits. This might be caused by the facts that people mingle with each other in high intensity so that they may influence one another, while the Faculty didn't reinforce its value and norm as effectively. This also may be the reason why most of the faculty members are pragmatic and tend to stay in the safety zone. From the interviews, the researcher found that people in the Faculty of Economics had certain sets of expectations. But during their employment, they went through a change of heart because of certain obstacles. These obstacles might take many forms, and not everyone went through this phase, but only people who did change their whole perspective. One of the faculty members witnessed her family falling apart and the children going astray during her work as an academic adviser, leading her to rethink of her priority. While the other had an idealism to help Catholic institution to develop, the organization failed to aid this, leading to disappointment. During the last few years, many of the academic staffs built network outside the university and/or came back from their study abroad, bringing new ideas and slowly starting to change the way of thinking in the faculty. These people are small in numbers, but because they consistently encourage the new way of thinking, it has started to affect other faculty members who were pragmatic. The last indicator of this study revealed in the interview was ideas. The researcher found that ideas were encouraged, but most of the faculty members kept the idea to themselves. Exposing ideas to the leaders will lead to brainstorm and need assessments on whether the idea can or need to be realized or not. If the idea is accepted, the person who contributes the idea will usually be the one who will be assigned to realize the idea. Several people see this positively since they can actualize themselves and contribute to the faculty. Others, on the contrary, view this as an increase of work for them, with already unbalanced workload, which is unwanted. This is one of the reasons why people keep the idea to themselves.

### ***3.2.3 Personal Mastery***

The findings show that work distribution is uneven, not only between the tasks components, but also between peers. This is triggered by the fact that academic staffs have to fulfill the main responsibilities imposed by the government, the *Tridharma* (lecturing, researching, and community service), while the faculty demands the academic staffs to also work on supporting tasks. Lecturing is especially high in term of work load because of the high ratio between lecturers available and the students. Other time-occupying tasks are the supporting tasks. Different from lecturing, a supporting task in the Faculty is a bit unique since people who fail to fulfill the faculty's expectation on their supporting tasks will be taken out of the pool, thus limiting the talent choice for the supporting tasks. This creates dilemmas among the leaders because this has led to heavy workload on the supporting tasks among certain people but not among the others. This is bad since people who fail will have the disadvantage of having a smaller chance to join any working groups. Supporting tasks are considered time consuming because they have little points compared to those of Tridharma in term of academic staff's evaluation. Research and community service, on the other hand, are relative to the person. In addition, people realize the needs to learn as something essential for them. The reason for the eagerness to learn, however, can be divided into two. The first reason why faculty members think that learning is important is that they perceive learning beneficial for them. For the academic staff, a higher degree means an access to a higher academic career level. It also helps them in their tasks. Meanwhile, for the administrative staffs, higher education means a higher chance to improve their living since people with an academic degree have better pay than those who are high school graduates. Training is seen as an aid to their daily tasks. The second reason for the faculty to perceive learning as crucial is that it is administrative in nature. To reach a good accreditation, a faculty has to have a certain number of publications, a certain number of Doctors, et cetera. The faculty believes that a higher degree for the academic staff is equivalent to a high rate of research, even though the relationship is yet to be proved. Although the eagerness to learn is high, chances provided by the faculty to learn is open to everyone, but it is unequal. The leaders expressed that even though anyone can propose to be funded during their study, there are determinant factors that are known only to the decision makers, and unopened to public (faculty members in general). According to one of the leaders, the factors are, among others, but not limited to: commitments shown toward the organization, motivation to study,

behavior in the Faculty, historical record, strategic planning (on what discipline needed by the faculty), and quota (budget constraint and including a number of academic staff currently studying). From what the respondent comprehend, the task itself serves as a great determining factor. People with a high rate of success in their tasks and outstanding performances will be favored due to their historical records. For the administrative staffs, chances are open as well, even though the majority of the administrative staffs are not eager to be funded due to the contract that will be put legal binding on them upon completion of study. For training and courses there is no problem since there is budget to accommodate them and they do not need too much time. Lastly, reward is available to encourage learning, through tasks, but punishment is absent.

### **3.2.4 Team Learning**

The findings show that the formal dialogue platform in the faculty is obsolete compared to the informal one. In a learning organization, dialogue has to be encouraged by the organization. A way to encourage the said discussion is to provide a medium or platform for every faculty member to mingle and create a learning atmosphere where people are comfortable to speak out their thoughts. In the Faculty of Economics, only the academic staffs are given such a platform formally, depending on the task. For the academic staffs, however, a platform is provided. Though along its journey the platform serves many functions from a scientific to socialized meeting, the platform was meant for knowledge sharing. Even though it has resulted in several proposals and grants, the real dialogue that sparks an idea takes place in informal small groups between academic staffs and those with the same interests or aspirations. It is limited, for sure, since not every group has the same view on the urgency of learning. But it is a sign of self-initiated learning among the faculty members, which is good. Also, there is no platform for inter-faculty research. Inter-faculty research takes place based on the personal relation between individuals. The leaders consider such a platform unnecessary since research is based heavily on personal preferences. Besides research, another task that involves people from the possible different units (limited to units because each faculty has its own authority) usually only involves a certain group of people. Membership of this group was not expressed by any of the respondents, and thus the criteria are unknown. But according to one respondent, the leaders handpick people who will be in the team, but the considerations remain unopened. Some of the respondents expressed that failure in previous group membership will lead to a smaller chance of being picked for the next working team. Since the working group usually involves a certain group of people, usually the group is always same. In the work process they work on, the formal documentation exists but it cannot be referred to next time the same process/problem occurs. This is due to knowledge relating to the process that belongs solely to the group member in the form of tacit knowledge and it is not documented properly. People who are new to the group or newly in charge have to ask the people joining earlier if such a process/problem ever occurs again. It is unclear how the faculty will respond if one day the key person is no longer in the university and the process/problem occurs. It is against learning organization principle where information should be able to be accessed by all faculty members whenever they need it (Marquardt, 2002). The information can be shared with other faculty members, but there is a tendency of other faculty members who do not ask for information necessary for their current work. The researcher thinks that it might be another norm that is widely accepted in the university that people who have no business does not need to know. Whether they will need to know in the future is another story.

### **3.2.5 System Thinking**

The findings show that learning is considered crucial and needful by the faculty members and the leaders. People inside the faculty know their role in the faculty. The leaders have a different approach but, generally, the course stays the same. We can see that the respondents agree that learning is important because not only does it affect themselves, but also the students, their future research and community service, and the faculty, both administratively and academically. Most respondents can see how they play an important role in the organization. This precious perspective cannot be forced by the organization, but it has to be discovered. The academic staffs discover this mostly by themselves or by their senior's guidance. There is no mentoring department for the academic staff, one to another. But solidarity as an academic staff drives the senior to guide the junior, or at least as observed by the researcher. This knowledge of a role one possesses in the organization is indeed valuable, but it is useless without proper leadership. From what the researcher observed, the overall direction of the faculty during the change of dean is relatively the same, but only a different approach or method. It is acceptable since a leadership style differs one to another person. The dean has to provide direction and clear guidance on what the faculty tries to achieve. Even though as explained in the shared vision section most of the respondents have no idea about the vision, at least they still stick to the principle and goals set by the faculty. The dean as the leader of the faculty has to make sure that principles and goals that the faculty members hold on to will be utilized to move the faculty to the direction intended. To conclude, a system thinking shows acceptable magnitude that affects learning of the Faculty of Economics.

### 3.3. Outcome Space

The findings in quantitative and qualitative approaches show similar but different impacts toward learning in the organization. The magnitude of each discipline/sub-system is then assigned and displayed to provide a broader view based on the relationship.

Quantitative		Qualitative	
Subsystem	Magnitude	Magnitude	Discipline
Shared Vision	+++	-	Shared Vision
Culture	++	-	Mental Models
Employee's Skills and Capabilities	+++	+	Personal Mastery
Team Work & Learning	++	+	Team Learning
System Thinking	+	+	System Thinking
Leadership	++		

Fig. 9. Quantitative vs. Qualitative (OutcomeSpace)

Magnitude is shown as positive (+) or negative (-). For the quantitative, the magnitudes are amplified to highlight disparity in scores between the sub-systems as shown in Figure 1. According to the class intervals, all of the sub-systems in the quantitative method would be grouped in the same class as "AGREE". But staying faithful to the class interval will lead to failure in capturing the phenomenon. The more the (+) signs, the more positive the sub-system support toward learning. Assigning the magnitude was based on the researcher's subjectivity to picture various degrees of support toward learning by each discipline/sub-system.

There was almost no previous research featuring such an outcome in the topic of Learning Organization, and even if one exists, it is in very few in number. The researcher based the model of qualitative on Sari's (2012) that used a qualitative approach. However, as seen in Sari (2012), the researcher merely attempted to prove whether the organization was a learning organization or not. But in this study, the researcher found that describing how the sub-systems being perceived as a research object is very important. Sari's research was normative, and thus the researcher attempts to map each sub-system's position in the negative and positive area to serve as a starting point for future studies to identify factors that burden the learning implementation in the organization. The positive (+) and negative (-) assignments in the outcome space indicate whether the sub-systems are still in an early stage or implemented stage.

As we can see in Figure 9, or Employee's Skill & Competencies, Team Work & Learning, and System Thinking, the differences are not very significant since all of them display positive influences toward learning. Shared vision and Culture show very different results in the comparison, whereas the quantitative method shows a highly positive result; meanwhile, the qualitative method shows relatively negative results. From the 6 sub-systems used in the quantitative approach, we have to note that some of the sub-systems are ignited by the organization, while the others are ignited by the individuals. While the sub-system of Shared Vision, Culture, and Leadership are arguably ignited by the organization or leadership, the Sub-systems of Employee's Skill & Competencies, Team Work & Learning, and System Thinking are generally ignited by the individuals, with the aid of leadership. The extreme differences in our case, however, take place in those three sub-systems. Even though the Leadership sub-system has no direct equivalent, it is embedded in every discipline in the qualitative approach. Since it shows relatively different results, the researcher concludes that leadership has to be investigated as well.

Shared Vision shows different magnitude in both approaches. While the quantitative approach shows that it scores highly positive, the qualitative approach says otherwise. We can see from the question items of this sub-system that it indeed attempted to explain that vision defines values, shows what the work should achieve, and whether or not the vision is supported. However, it should be noted that the questionnaire lacks one very important question. It didn't show how deep the staff's knowledge of vision and whether the respondents adopt it as a personal vision or not. The vision might be translated into a set of target (achievements) and values (norms), but being translated does not mean all of faculty members truly understand. The researcher suspects that the main problem here is communication. The faculty members feel no urgency to learn about the direction, and moreover to adopt it. The vision statement remains as some set of words that can

be shown to an assessor when there is any assessment for administrative purpose. It is as if the vision is only important for people with positions, while the staffs do not need the direction.

Next is the organizational culture sub-system. Analysing the questionnaire items again, we could find that the questionnaire tried to investigate rewards and punishment, how faculty reacted to new idea proposed by staffs, and encouragement toward being critical. When given the questionnaire, the respondents could answer quickly, but there are certain aspects on the statement that the questionnaire failed to explain. Rewards and punishment could be explained, although it was not as deep as the interview. New ideas are described as welcomed, but their execution depend on the leaders and the leaders tend to assign the execution of new ideas to the person who proposed the idea. With such tendency, people who have an idea will tend to keep the idea to themselves, since workload is already high and contributing an idea brings more trouble. Other than that, the questionnaire fails to explain how people tend to think in the organization. It is not because the questionnaire is obsolete, but because a way of thinking is not something to be asked with five levels of answer. By conducting interviews, the researcher has succeeded in generalizing people's way of thinking inside the facility. The pragmatic and simple way of thinking, as well as risk avoiding behaviour is becoming a culture. It is not a culture intended by the organization. Ideally, the organization creates the culture, based on values and norms. But in the Faculty of Economics, culture and values created by the organization are not strong enough that the widely accepted culture and value are the ones created by the faculty members' disappointment or changes in the way of thinking during their employment. However, it has changed lately. It can be seen from how the respondents remember the university's principle which explains virtues in the university and how the pragmatic way of thinking is shifting into changes in oriented views. The interview scored negative because at the moment the interviews being conducted, that was the condition. Even though a change is expected in the near future, it will move slowly inside the faculty. As a shift of mind is occurring between the young people, people who network outside the university, and leaders that realize the need for changes, there are also people who are not ready to change. The speed of a fleet is the speed of the slowest ship, and so it happens in an organization as well.

Employee's Skills & Competencies score higher in the quantitative method; maybe because the questionnaire didn't explain that even though the chance to self enhance is open to everyone, it is not equal. There are factors that determine whether or not an employee will be able to be funded. One of them is historical track. While the leaders make the final decision, it is the staffs that determine whether they are qualified or not. The staff's lack of commitment, lack of enthusiasm, and several failures in the past will put such a candidate on the last option. Unfair, most of people would think. But funding on a study is a big stake an organization has to decide. The decision makers are rational to put certain consideration, as long as it is objective. Most items in the questionnaire only indicate the existence of such practice, while deeper, we can find that there are other conditions that follow the practical execution. In addition, each person perceives the statement item differently. For one respondent, his/her work is considered to fully utilize his/her skills and capacity, while for another, it is not.

The next sub-system in question is team work & learning. The quantitative approach scores slightly higher than those of the quantitative. The most important trait in this sub-system is sharing. Knowledge sharing is the heart of team work & learning, and thus dialogue is important. From the questionnaire, we can see that people think they can share knowledge, successful practices, and basically any useful information. In the interview process, we can see that such a platform is provided. A media for brainstorming. Not limited to a proposal discussion, knowledge sharing, or even just talks and interactions with each other. But again, from the interview we can see that the media didn't work quite as expected. The platform is provided, schedule cleared, place provided in the faculty, but one more crucial factor does not fulfil the expectation, which is, the human beings. Either the academic staff is too scared to make criticism, has no interest in such dialogues, thinks that it is time wasting, and too different discipline backgrounds, or else. The interview provides a small number of details in this matter. The researcher believes that everyone in the organization, especially the academic staff, has a different perception of what a scholar should be, on their work, on their daily work, on their mind. The discussion happens, still, but not in the formal platform provided. Instead, it takes place in small informal groups. The other important thing pointed by the questionnaire is how closely every group member can work. In the researcher's opinion, this might score high because there are not many problems in the team work. This might be due to the membership of the group. As explained before, in the Faculty of Economics, everyone is given tasks, whether individual or group tasks. Success in these tasks will earn trust from leaders, thus granting the possibility of future membership in the working group. This is not necessarily positive or negative, because it depends on the perspective of the person. For one person, membership in a group is a benefit because they enjoy more work, while for another person, it is undesirable because it occupies the time they can use to conduct a research or write a book instead. The interview also discovered certain tacit knowledge that belongs to some groups of people that is not shared with public unless it is necessary. This put people with tacit knowledge on certain positions, while people without such knowledge will have less chances and have to rely on people with tacit knowledge since the organization's documentation is not helpful. Another form of team working takes form in inter-faculty research. The questionnaire didn't explain that either. But from the interview we can see that it happens, but in a very limited rate

since inter-faculty research is limited to the personal relationship among the researchers, since the platform for such function does not exist.

Next is the system thinking. In this sub-system, learning at the level of organization is explained. This sub-system scores quite high on the quantitative approach. It is relatively the same as those in the quantitative approach so the researcher concludes that there is not much to explain since both methods agree that the system learning in the faculty supports the learning positively but not with very high rate.

The last one is Leadership, which affects all disciplines according to Senge. In this part, leadership has no counterpart in the qualitative approach since Senge thinks that leadership has to be embedded into 5 disciplines explained previously, while Neefe thinks that in the educational institution such as University/College, it deserves a place of its own. Leadership in the Faculty of Economics itself is divided into many levels. University level leadership plays a big role since every policy in a faculty is derived from the university's policy. In the faculty, faculty level leadership has a big scope since it houses three departments. Leadership at this level is generally considered stable. But on the department level, it is a different story since several years later, a change of leader takes place quite often. The type of leader will affect every other sub-system/discipline. There are leaders who are future oriented, but there are leaders who are operational oriented. The researcher fails to dig deeper into this topic. But the researcher notices that the failure of several sub-systems and disciplines has to be attributed to this sub-system. Leadership has to provide mental models for every faculty member to follow. Thus, leader's failure to be a role model will result in loss of learning, as explained in the previous section. Leaders also determine whether faculty members will adopt the organization's vision or not. The researcher concludes that even though an individual in the organization is a big determinant factor for learning to take place, leadership is another big determining factor that might be able to influence the faculty members' tendency to learn.

#### **4. Conclusion and Suggestions**

Taking a conclusion of the analysis between two approaches, the researcher finds that Senge (1990) provides a philosophical guidance for an organization to be a learning organization, regardless of the industry. But Educational institution is a very unique organization that tends to be traditional; thus, the researcher agrees with Neefe's leadership sub-system because in an organization with a strong hierarchical order, leadership is a determinant factor that will affect the other disciplines/subsystems.

Following close observations, there are two triggers that determine the magnitude of each sub-system toward learning in the Faculty. Those triggers are the individuals and the leadership. It is true that learning starts in the smallest component of an organization, which is individual learning (Marquardt, 2002). But while some of the subsystems are ignited by the individuals, such as personal mastery, all of the sub-system is not fully ignited by only one party. Instead, it is ignited by both parties, but to a certain degree. Thus, some sub-system individuals dominate, while another sub-system leadership dominates. However, an individual is also influenced by the leadership as well.

In the analysis, the researcher sees that leadership is a crucial factor that fails to perform perfectly, due to many factors. This is unfortunate since leadership can bring this organization to thrive even further if used properly. It is expected that this research serves as a reflection for the leaders and future leaders of the Faculty of Economics of how the staffs perceive the organization, leadership, themselves, and the students as an environment. In a faculty such as the Faculty of Economics, a decision making process is not a process undertaken by merely a leader. Because of the collegial leadership, decision making process is not to be done quickly. It is because of the organizational structure that involves many people in the decision making positions, and thus every decision made has to be considered as a part of long term process which has to be assured of its sustainability. They have to also make sure that the decision will be carried on by their successor. This is why a leader in the Faculty of Economics has to take many accounts into consideration in the decision making, without taking too much time that will delay any process.

Learning from both approaches, the researcher concludes that the Faculty of Economics is a learning organization, but only in the early stage. Even though not every sub-system shows a positive magnitude toward the statement, the researcher sees, in accordance with the quantitative approach, that learning takes place. Even if now it is not strong yet, the researcher believes that in the near future, learning will be more general in the Faculty of Economics. The differences and similarities of both approaches show that things are not as visible on the surface. Things are not as they seem due to the complexity of the organization where many factors play important roles.

During the interviews, the researcher found that many respondents went through an obstacle or several of them, causing changes of view of their employment. These obstacles are not the full responsibility of the organization; sometimes such obstacles are out of control of both parties. But future research may be conducted to find what obstacles play the big part in changing the respondent's way of thinking, since it can explain further how the obstacles take effect before and after they

take existence. However, the fact that the university in this case study is a university draws a clear line that differentiates this research from Sari's (2012). Also, the fact that the university is located in Indonesia and a Catholic University also plays a role that makes this research different from Veisi (2010) and Naverbrahim& Badakhshan (2013) who conducted studies in a university in Iran. Thus, this study is not to generalize universities of faculties of economics in Indonesia, nor Jakarta.

Limitations of this study also play an important role in this research. For future research, this research can also be improved by conducting such research in different faculties of the university, or even conducting a massive scale research on the whole university, both the faculties and the bureaus/centres/institute/units. The sampling method might be changed into Slovin's formula (in Sekaran, 2003) or any other methods that draw over 50% of the population, to capture more comprehensive and deeper phenomena regarding a Learning Organization. If any future researcher wishes to improve this research, the sampling size is one thing to be improved since the sample size in this study is considered too small. This research can serve as a foundation if any other researchers wish to construct a questionnaire to measure the learning organization in Indonesian Universities, since the modified questionnaire used in this research didn't capture the whole image of the Indonesian higher education institutions. A construct of future questionnaire should be made differently for private universities and state universities. The size of a university also plays an important role in determining variables the measurement tools tries to capture. Note that in Indonesia, higher education institutions are not only universities but there are also academy, institute, polytechnic, et cetera. All of these have to be taken into account in constructing new measurement tools in the future to ensure reliability and validity.

This research has thus reached a conclusion, that the Faculty of Economics is a learning organization, but with a note that many things still have to be improved if the Faculty of Economics wishes to stay competitive in a changing world as today. The complexity of the practices, norms, and values inside the organization are what make the Faculty of Economics stand out from other similar institutions. The said complexity can serve as a cornerstone for improvement, but it can also act as an obstacle, depending on the leadership.

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## Improving Informal Communication to Enhance the Mutual Trust Qualitative study in School of Communication - Private University

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### Abstract

This study describes the informal communications network in School of Communication - Private University. The purpose of this study is to draw informal communications among the members. The method for data collection used questionnaires and observation method of collecting participants, while the secondary data were obtained from documents provided by the private university. The type of research was descriptive qualitative using in depth interview and observations. Based on the results of the study, it has been revealed that informal communication flowing through the set of informal structures that sustain organizations and less formal relationship in a job environment can enhance trust among the organizations member.

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Keywords: enhance, mutual trust, communication, informal, organizations

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### 1. Introduction

The development of information technology is fast changing the way of communication in a workplace. Indeed, it creates opportunities for a variety of corporates that extensively use information technology, one of which is Private University. These opportunities must be balanced with the corporate condition that has high competitiveness, especially in terms of human resources or employees, because human resources have a vital role in corporate activities. Daniel Dănci [1] has stated that people are interrelated and that individual performance affects and is affected by other performances.

The role of the internal corporate communication becomes an important factor to determine the company's efforts to gain success. Therefore, it's required a system, or corporate communication network that helps the employee to achieve that goal. Pace and Faules [2] said that the decisions taken by member organizations will work effectively. Therefore it is essential to be honest to the organization, to form the spirit within the Organization, to perform the duties creatively and to offer innovative ideas for the improvement the organizations influenced by communications.

The importance of communicating the things remain associated with progress, so the work between Division/Department and other departments are needed to create synergies, reduce the misunderstanding that can trigger conflict in work, and strengthen mutual trust between management and employees. The interesting part for the case studies is to examine the organizational communication as communication flow takes place in line with the internal changes in the organizational structure of the company itself. Communication is a sequence of small communication networks, somewhat

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overlapping and interconnecting to form networks.

Informal communication often contributes to the effectiveness of an organization in reaching its goal. Both formal and informal communications are related to each other, so the members of the organization can process information, and both types of channel are interchangeable. For example, each channel type, can take turn informal channels of communication are not over filled by formal channels. Communication media that are used today in order to facilitate internal communication in School of Communication are as follows:

- **Whatsapp**, the cross platform messaging applications using smartphone media messages, are used to inform the non-formal or formal messages.
- **Board Announcements/Magazine Wall**, is used to inform, policy dissemination such as teaching schedule.
- **Mailing Group** is used to inform the wedding invitation, policy dissemination.

Basically, the official communication medium in Communication Science Program is public announcement board and mailing group list media sharing. It means that in School of Communication and Business, the members of the mailing list are not only the lecturers of Communication. Meanwhile, Users of Group discussion via Whatsapp is the object of the research in order to examine the function of the author's internal communication, both formal and informal. The application is more flexible as compared with others. The user of the media can directly communicate and even exchange multimedia files. Information is two-way and connects a person with even a few other people simultaneously (group). This media users are arguably semi-formal, because it can also be used to discuss organizational issues, job, the personal affairs and even rumors. Communications networks are relatively less structured than formal. Network communications that occur just show the behaviour of everyday communication of individuals within an organization. Communication networks change over time, and therefore its existence cannot be predicted as well as formal structure.

The organizational structure is a simple diagram of the ideal communications relationships within an organization. What actually happens is sometimes different, as it is shown by the research organization. Analysis of communication networks is one of the best ways to find out the presence and origin of the difference in organizations. According to his book, Rogers and Rogers [3], it is said that there are three different concepts as follows:

1. Total System Network (Network System Total) includes all communications among individuals in a system, such as an organization. This network can consist of thousands of people and it is also a great organization.
2. Clique is defined as the network subsystem elements with other elements that interact relatively more often than other member of a communication system. Most major of component a clique of a communication network within an organization.
3. Personal Network (private networks) - defined individuals related and currents associated with certain pattern communication in individuals.

To identify "key actors" and a homogeneous group, Cross et al. suggested to study the five organization networks (including the three previous studies proposed by Krackhardt and Hanson, [4]: *Communication network, Information network, Know network, Problem solving network, Access network*. *Network of accessibility to knowledge within the organization*). These informal network can be divided into: non-working domain and working domain. This paper presents informal communications among School of Communication members in a Private University. It draws a small communications network using Whatsapp; the cross platform messaging applications using smartphone media messages in small-medium organizations is reported in this paper. This paper presents four factors to be identified in this qualitative research method: Factors of relations role (role relationships), Factors of direction of message flow (direction of message flow), Factors of circuit current message (the serial nature of the message flow), Factors of the content of the message (the content of the message).

## 2. Method

To examine how to improve organizational performances through a formal and informal communication in the Communication Studies Program at a Private University, researchers used qualitative research method, whereas the process of observation and accurate data collecting were based on the data field featuring an interview with a guest speaker. According to Jumroni and Suhaemi [5], the qualitative research is conducted in a reasonable situation (natural setting). Moreover, collected data are generally qualitative. The reason why qualitative research method was used was to investigate how cross-platform technology such as "whatsapp" can improve organizational performance through a formal and informal communication for lecturers in the Communication Science Study, Faculty of Business Communications Private Telecommunications.

The writer uses descriptive qualitative method because it discusses the informal interpersonal relationships in organizations that expose individuals to increase communication model performance. Qualitative research is holistic or an overall symptom. It is not a variable or set of research based on other researches. Therefore, qualitative research is not only based on a variable set of research studies, but also the overall social situation under studies that covers the aspects of the place, actors and activity interacting synergistically. Qualitative research has the objective to interpret social phenomena. Qualitative researchers can use semiotics, narrative, content, discourse, archival, phonemic analysis, and even descriptive

statistics. This study used a qualitative descriptive approach. Because the problems brought on by researchers is still tentative, the theory used in the preparation of the qualitative research proposal is still tentative, and will be developed after researchers enter the field or social context. Related to the theory, the quantitative research is to test the hypothesis or theory, whereas qualitative research is finding a theory, or in this case to find a way of analyzing the Informal Communication in the Organizations- the Private University

Qualitative researchers should be "perspective emic" meaning that the researchers obtained the data in a way that is not "as where it should be"; it was not based on what was considered by researchers, but it was based on the implementation, experiences, felling, and thought by participants or data source. By using qualitative method, researchers could figure out the opinion of the faculty member as the members of Whatsapp about the existing reality, trust in organizations of improving organizations performance.

This research led to the use of IT applications cross platform using smart phones to inform media messages and to use formal messaging. According to De Vito [6] in his book "communication between Humans" it is explained that the organization is sending and receiving various messages in the organization in a formal or informal group organization. Organization Communication can be formal, whereas the communication approved by the Organization itself is oriented to on the organization. The contents of the ways work within organizations, productivity and variety of work to be done in organizations: memos, policy statement, press conference and official letters. Meanwhile an informal communication is communication that is socially approved. The Orientation is not in the Organization itself, but rather on its members individually.

In its daily routine, communication is established between employees. It shows dynamics in performing job functions, positions and authority existing in the organization of work place and it gives impact to the lack of coordination between divisions/departments because the information is not given to the right or to the authorities party to follow up the problems, so that handling problems is often stunted and leads to complaints from clients and thus decreases the risk of image or, worse, criminal charges. Goldhaber [7] described there are factors that influence the nature and scope of the Network: relationship role, message flow direction, serial nature flow and content in an organization. The discourse above has interesting thoughts about the need for the study of formal and informal communication patterns in a medium-size organization that has a wide range of variable levels of employee education, age, ethnicity, culture, old work, and so on. Goldhaber said that the scope of the communication network organization is influenced by several factors, such as: relationship role factor (role relationships), 2-way message flow factor (direction of message flow), circuit current message (the serial nature of the message flow) factors, and the content of the message factor (the content of the message)

Starting with relationships role factors, Goldhaber said that the role of individual is a factor in the organization in accordance with the position or duty. In order to implement formal tasks, the information or message is submitted in formal messages and uses a communication network as a formal means of communication. All types of communications and exchanges of related messages in the field of duty are a formal communication channelled through formal networks. Furthermore Goldhaber also said that if there are at least three or more individuals, interactions occur continuously between them, and then a group (group) will form. Hargie et al. [8] also said that during the interactions colleagues often discover similar reviews on their attitudes, opinions, and values and consequently they will become acquainted and mates to one another resulting in friendships. This means organizations can appear in variety of types of groups within its own network. This main factor becomes the foundation of the theory used in this journal.

Through a chart/organizational structure, we can learn the operational system and also act as a suggestion to lead these patterns to the directions instructed by formal communication channels. Evertt & Rekha [3] declared that we can predict the nature of the communication by knowing the formal chart. Thus, this organizational structure not only expresses the expected patterns of formal communications, but also the informal patterns of communications. Formal structure contains the patterns of formal relationships and tasks, job description, formal rules, operational policies, procedures, compensation and rewards, etc. In other words, the organizational structure contains the aspect of the patterns of behavior in organizations that is relatively predictable. Besides that, there are also informal structures. Guffy et al. [9] stated that informal communication is based on a social relationship among people so that we could not separate the formation of informal structures because when the employees get less information from the formal structure, the informal structure can complete the shortcomings of formal structure Gray & Laidlaw [10]. Formal communication and informal communication channel within an organization sometimes, complementary and interchangeable. Hanson Krackhardt [4] stated that the performances of organizations are determined by the informal structure called real central nervous system, which drives the collective process, the actions, and the relationships inside the business unit. But sometimes overlapping occurs between the formal organizational structure and informal communication patterns Allen & Cohen [11]. Often, there are incongruity between formal behaviour and formal structures and the informal structures.

In this study there are several reasons because of this discrepancy: (1) the structure organizations that frequently change (2). There is a shadow of organization structure (task force) beside the official structure (3) climate companies are looking for a family to make the employees tend to get information from fellow employees. This is the fundamental of this research. Generally, informal structure triggers the development of gossip. Gossip is an unconfirmed message that is sent along personal channel. Gossip as rumours are communicated without assurance standards based on facts/evidence-channel and

do not follow the official channels, therefore rumours are spread very quickly. Gossip is almost entirely verbal, and the fact that gossip is not literally written can skip the formal channels. A study stated that employees that relies on the grapevine employees when they feel threatened, insecure, are under stress, when there is a pending change, and when employees feel that communication from management is limited.

### 3. Result and Discussion

#### 3.1. Result

Communication Studies Program Faculty of Communication and Business Private University has a structural organization that is led by the Chairman of the Program and assisted by staff and educating staff. Educating Staff are the workers who are directly involved in educating students, in this case called the Lecturer. Lecturer, the personnel are divided into four categories;

1. Extraordinary Lecturer or abbreviated LB, is a lecturer who is only present at the time of teaching, and paid based on the hours of teaching/semester credit system (SKS). They do not have other obligations, such as research, they don't have Lecturer National Identification Number.
2. Part Time Lecturer, is a lecturer who has taught also in addition to the obligation to be present at a certain time, being thesis advisor to students
3. Full Time Lecturer is a lecturer who has an obligation to come every day, do counselling to students, academic meetings, may hold structural positions, and obligations, have registered NIDN on behalf of the institution.
4. Fulltime Employees and Prospective Employees, is a lecturer who has the same obligations to remain full-time in faculty, with more rights than others, such as health, and other scholarships.

This study focuses on the informal communication through the media group “whatsapp” that increase mutual trust in the organization. In this study researchers use 6 informants which is three of them are the members of Group Discussion and 3 others are not the members of the Group Discussion via media whatsapp. All of informants use a smart phone to access “whatsapp” account. All of informant Group Discussion retrace whatsapp more than 3 groups, with a wide range of topics and group themes. Based on interviews with respondents, there are some facts that have many issues in discussion are not valid. Some information that is disseminated through the group sometimes contain invalid information disseminated through the mailing list or the board. Some issues had low of validity, for example the case of the health facility. Discussions that occurred in the group mentioned that Private Foundation has no longer cooperated with the previous hospital or clinic. The different issue revolved through mailing list. The issue was ignored by the spread of information through e-mail and mailing list and included the attachment of the HRD. On the other side, Group Discussion could increase organizations performance in sharing information at critical moments. Most of the informants said the information on SYSTEM INFORMATION EDUCATION MANAGEMENT assist for update system.

Issue appeared when the lecturers were faced with the new education management information system (SYSTEM INFORMATION EDUCATION MANAGEMENT) applied to the Private University in the absence of socialization. The socialization of system designed was not good in internal organizations. The information is not conveyed properly, socialization of SISFO (IT Department) were spread through the official channels (mailing list of employee-information systems, dashboards) was not accepted clearly. The cause for socialization system using the mailing list and the dashboard was not familiar in the lecturer's sight. For this critical situation, the lecturers turned a Group Discussion as informal channel that was very helpful and could support the activity of the lecturers. Sharing the information, the use of education management information system tools, processes and management courses guardianship can be solved due to the Group Discussion sharing.

In addition, not all lecturers with permanent status have the application installed on their smart phone can become a member of the whatsapp group members. Several new lecturers reference (group discussion members) may not be directly approved by the members of the group. The membership is approved by one of the informants. The process to become a member of group discussions is defined by closeness among the member itself. Even though, there were a few times informant out of the group members was invited to join, although in the end came out as well. As an unwritten rule, members of Group Discussion are lecturers at the department of Communication Studies, although he/she is no longer active in the Communication Studies. In fact, the rules to be a member of this group are not clear. it contrasts to mailing list lecturer, which is managed directly by the Faculty of Communication and Business.

If its compare to mailing list which is managed by the Faculty of Communication and Business, this group has informal organization hierarchy. The level of trust and respect to individuals are based solely on age, position ever lived, seniority (without limitation), and personal credibility. Hereby the process apply to join with group

1. Based on the invitation of the admin group
2. Based on the reference from other members who have joined
3. Based on the request directly to the admin group

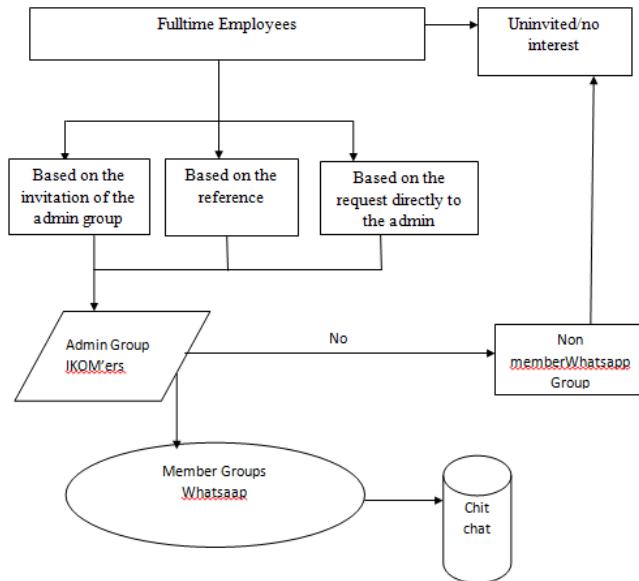


Fig. 1 Flow Diagram membership procedure

Regarding the level of comfort for a member on this group, four informants stated they are feel comfortable being the member of this group. The comfort level is characterized by a feeling of being part of this group. He/she has received the response from the other members during the discussion. One informant stated that the signal whether a person is accepted within a group is by acceptance and getting the response for any information displayed. Four of six informants claimed to just become "silent reader", which means that readers decide not to comment anything. They regard Group Discussion as a source of information and only participate when their name was mentioned directly during discussion. Despite all of media claim the group Discussion is informal information, the typical member of a silent reader stated that the group remains limited by constraints that cannot be explained. The main reason to be a 'silent reader' is they want to maintain a personal relations and do not want to be involved much in terms of things outside of the work.

Motive to become a member of the group is essentially all informants agreed just to get the latest information related to the job. All informants agreed that, the group provide much benefit in enhancing mutual trust among members, because the process of direct personal relationships based on trust, closeness and long process. All informants argue that the group is basically helpful in improving organizational performance without using formal conversations, but with the approach of daily-casual conversations. All informants also agreed that it would be better if the group discussion is split into two, based on the theme of the discussion, which is a formal and an informal discussion. Concerns arise in the middle of the formal discussions, all of a sudden the other members responded with a joke. Communication via text, without involving intonation, facial expressions can sometimes be a mistake response.

### 3.2. Discussion

Gossip as rumours that communicated without assurance standards on facts/evidence turned out to be true, it happened to Group Discussion. Model of discussion about the health facilities provided by the company showed the validity level of Group Discussion is low. Definition Group discussion as a forum for informal communication becomes valid. Even though the communication process occurs in group discussion without any assurance standards and on the evidence or low level of validity, it can help to improve organizational performance. It implies in the case of application for the System Information Education Management. When an official communication infrastructure called System Information Education Management, does not provide clear information Group discussion apparently used by management in the communication Studies courses disseminate information, the validity of information is counted by the credibility of the informant. Group Discussion also met the scope of the factors communications network as it is said by Goldhaber [5]

1. Relations role factors (role relationships), the motive group members trust the validity of an issue. A case in SYSTEM INFORMATION EDUCATION MANAGEMENT implementation is an example of how the group members trust the information submitted by members of the group who has credibility in the member perspectives.
2. Direction of message flow factors (direction of message flow), which is two-way make-to-date information is always flowing and update.
3. Circuit current message factors (the serial nature of the message flow) that connect (another discussion) so that the

level of information that can be refuted instantly doubtful validity.

4. The content of the message factors (the content of the message), which relates to the job and everything related to group members make daily life is always a concern group members.

This relationship is recognized through informal communication networks that have links with high employee morale, ethos, and unity among workers. Therefore, the informal communication network of the informants were asked to think about when he was involved in the communication structures such as chat, spontaneous unplanned meetings, interpersonal relationships, and any other things. Informal communication payloads have little concept of how to do the task compared with information about the people, the attitude of relationships, interactions, prediction, values and norms. Rate information received by each informant is in high level, but not too wide in complexity. This is because each informant almost any time communicates informally to its colleagues, but the topic of conversation is just stuff about the daily activities.

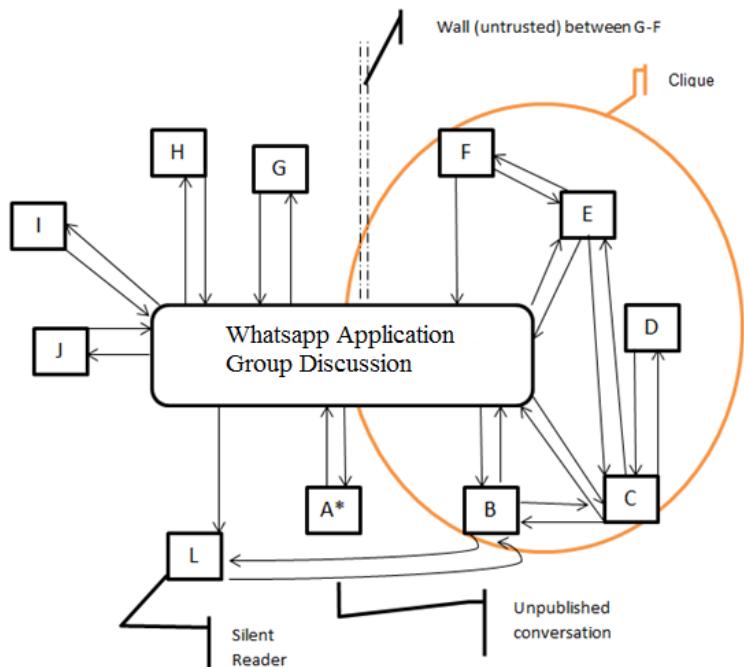


Fig. 2 Sociogram Communication Model for Group Whatsapp

## 5. Conclusion

Based on the exposure that has been described in the research and discussion, it can be concluded that 'whatsapp' group created a sub-groups based on proximity, seniority and sub-departments or commonly called the click. In progress, trust is not entirely the objective in 'whatsapp' group as the primary group. However, this 'whatsapp' group, recognized as an informal media successfully strengthen interpersonal relationships among members. Informal conversation to discuss topics such as family circumstances, places of recreation, humour besides discussing the job environment, is the example of how interpersonal relationships become closer.

Whatsapp as an application has its own advantages and proven successful data transmission to speed up the process of delivering information compared to other media. The process of someone to become a group member is based on the proximity of a person Group Discussion and reference of the previous group members. Lecturers do not automatically become a member of this group as a faculty group mailing list do. The main factor to be the member is trust that based on emotional closeness between members of the admin group as reason to refuse or accept a person to be a member of a group that is managed by the admin itself. Group Discussion proves useful in cementing relationships and organizational performance in information sharing in the job environment. The process of interpersonal communication occurs in any communication involving group members; by the time, it brings closeness relationship among the members in job environment.

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## Influence of Internal Market Orientation on Employee Job Satisfaction in Private Sector Organization

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### Abstract

One of the issues in internal marketing in the companies is treating employees as a middle man of customers inside the firm. This study investigates potential enablers of successful internal market orientation in the industry that can increase employee job satisfaction. The main objective of this research is to examine the influence of internal market orientation on employee job satisfaction. In order to measure that, three dimensions of internal market orientation namely internal marketing research, internal communication, and internal response are used. While, the two dimensions that measure employee job satisfaction are intrinsic satisfaction and extrinsic satisfaction. Data were gathered through questionnaire survey of staff at a private sector industry. Regression analysis examines the influence of internal market orientation on employee job satisfaction. The result indicates that internal market orientation positively influences job satisfaction. This limitation includes the sample, which is only in one private company due to time and monetary limitation. This result may not apply in other organizations because there is different management system, policies, and culture within the companies. The result from this research will assist companies to improve their competitiveness in marketing and human resources.

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**Keywords:** internal market orientation, job satisfaction, private sector industry, employee, competitiveness

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### Introduction

Internal Marketing, according to the conventional view, focuses on external customers, rather than paying attention to the organization's employees as "internal" customers. However, internal marketing is a competitive asset in developing sustainable advantage in the marketplace through a "marketing-like approach directed at motivating employees for implementing and integrating organizational strategies towards customer orientation" (Ahmed and Rafiq, 2002). Internal marketing is more important than the traditional external marketing. It happens because employees are also consumers, where the organization has to take care of its employees and build organization value for every member to follow (Kotler, 2004). In addition, Greene, Walls and Scbrest (1994) suggest that internal marketing orientation is the key to excellent service and success of external marketing.

In other words, internal marketing is a process that operates among various departments within the given firm, also between the staff and management. Therefore, there is a strong need for marketers to motivate and influence workers to change the internal process as expected according to an effective external market orientation. This combines all the activities of the company to convince employees to respond to the market, which includes the capability of adapting quickly the changes within the external market. However, Atousa (2007) asserts that the fundamental tool for achieving employee satisfaction is the treatment of employees as customers. The concept of internal marketing has evolved from the original conceptualization of employee motivation or happiness by treating employees as customers and profession as products for improving service

quality (Sasser and Arbeit, 1976; Berry, 1981) to customer orientation or market orientation and the use of marketing approach and marketing-like tools internally to motivate employees (Grönroos, 1990). In other words, organization should respect their employees and treat them as internal customers. Hence, in order to attract, motivate, and maintain employees, the organization should meet their requirements and delight them as customers in order to build up employee loyalty.

In order to achieve organizational goals, the employees will be searching for improvement and motivational methods such as motivation system, training, and job design to increase the organizational and individual performance (Chi, Yeh and Chiou, 2008). In short, the creation of a market-oriented culture results in internal customer satisfaction and improved service quality, which leads to customer satisfaction and success in the external market. A number of firms has regularly recognized and utilized the internal marketing program. One potential reason for this has been the growing interest in internal marketing as a prerequisite for successful external marketing. In addition, several authors (Gummesson, 1987; Berry and Parasuraman, 1991; Lings 2004) state that implementing internal marketing campaigns will result in an increase of service quality.

The recognition of employees' key role in service marketing has given a rise the internal marketing program that is strongly oriented to employee development (Tansuhaj, Wong and McCullough. 1988; Grönroos, 1995). It seems to be a very practical approach in industries because the customer-employee interaction determines a significant part of the market offering. Others argue that the quality of service and efficiency of the service distribution as well as the effectiveness of the communication effort would depend more directly on the actions of the employees of the company.

Intensive and high quality communications should be treated as a competitive advantage in order to inform employees to be always in time about the current nature of the external environment changes. This is a general internal marketing activity that requires companies to focus on customers and adopt market orientation. The end strong communication pushes staff to identify the need to change and when it is required, also makes staff feel comfortable about adopting quickly.

Based on the fact above, the main purpose of this research is to examine the influence of internal market orientation on job satisfaction, at least in the company where this research conducted. The research seeks to answer the following questions.

- Is there any relationship between internal market orientations with job satisfaction?
- Are there simultaneous significant influences between the internal market orientations on job satisfaction?

## **Literature review**

Internal marketing is a philosophy of valuing and treating employees as an intermediate set of customers inside the firm and enhancing the value provided to employees with the aim of encouraging them to perform the organization's marketing objectives and thus strengthen the competitive position of the firm in the external market (Sasser and Arbeit, 1976, Berry and Parasuraman, 1991; Greene et al., 1994; Ahmed and Rafiq, 2003). Meanwhile, According to Berry and Parasuraman (1991), internal marketing is the process of handling staff as internal customers and projects as internal products that satisfy the needs and desires of the customers and adhere to the company's goals. Jaworski and Kohli, 1993 also support that Internal Marketing is the process of promoting the company and its products to the employees.

As mentioned previously, internal marketing orientation crosses the functional boundaries of marketing and human resource management. The function of management is to influence employees' behaviors in the ways that will positively affect customer's perceptions of the levels of service they receive (Hartline and Ferrell, 1996). Therefore, managerial activities can be explained as the equivalent of an external market orientation of the firm. It means that a strategic overview of cultural change helps the given organization's marketing orientation as well. Internal marketing orientation supports organizations to build effective and efficient relationships with its employees, based on a dedication to provide higher value for employees (i.e. the internal market) by understanding and meeting their expressed and latent needs in as much in the same way as the commitment required to produce value for the company's customers (Gounaris, 2006).

- **Internal Market Research**

Internal marketing uses a marketing perspective for managing an organization's human resource (George and Gronroos, 1991). It is based on the philosophy of viewing organizations' jobs as internal products and employees as internal customers of these (Sasser and Arbeit 1976). This allows organizations to manage the employee and employer exchange by modifying the existing marketing tools and techniques to the internal environment of the firm (Greene et al. 1994). This has led to operations of internal marketing that directly reflect those of the external marketing. For example, Piercy and Morgan (1990) develop an internal marketing mix which directly parallels to the external marketing mix. In processing internal marketing this way, Piercy and Morgan suggest that jobs or projects constitute internal products. In the end, it is what the employee has to give up to complete the job, promotions are represented by internal communications and distribution by meetings in which the ideas are presented to the employees.

- **Internal Communication**

Communication is the means by which organizations transfer information from one entity to another i.e. disseminating information (Johlke et al. 2000). Therefore, it impacts the performance of front line staff. Information dissemination is an important requirement to align employees' attitudes and behaviors with the organization's goals (Boswell and Boudreau 2001; Guest and Conway 2002). Internal communications are the key in this process (Grönroos 1990), the close physical proximity between managers and employees increases opportunities for such communication, providing the chance to collect information about the wants and needs of the employees, as described above, and also to disseminate the information.

The process of communication is also important in fostering organizational identification (Smidts, Pruyn and van Riel 2001), and subordinate job outcomes (Keller 1994). In particular, bi-directional informal communications between managers and staff have positive outcomes for front-line staff (Johlke and Duhan 2001). In the context of internal marketing orientation, this is particularly important as the close proximity of staff and their managers means that bi-directional communications constitute an important part of workplace behavior.

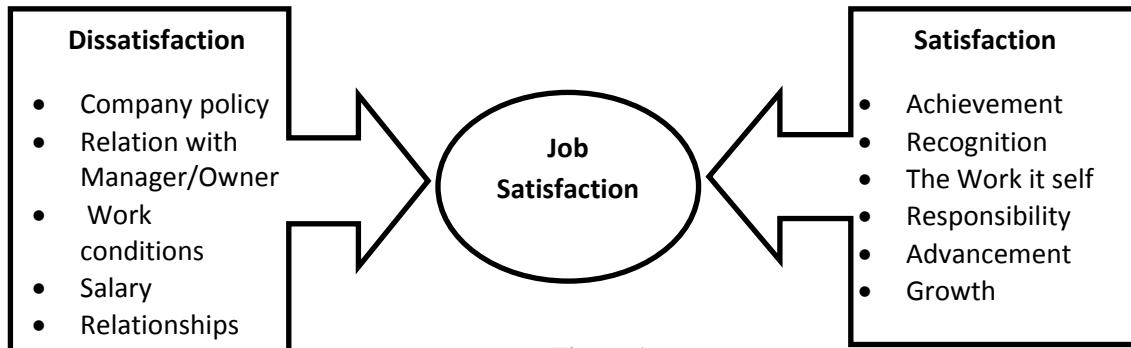
- **Internal Response**

The internal response dimension comprising the actions has taken in response to the needs of the employees and consists of designing jobs to meet the needs of the employees. The needs may comprise the followings: adjustment on the compensation schemes accordingly, building the management more considerate with regard to the employees' needs, and offering them the necessary training in order to develop the skill and capabilities that their job description requires (Gounaris, 2008).

- **Job Satisfaction**

Job satisfaction is an essential objective of internal marketing programs and, thus, a key performance indicator regarding the company's performance in the internal market. Consequently, in much the same manner, that the company's degree of market orientation directly influences its performance in the (external) market (Narver and Slater, 1990; Kohli and Jaworski, 1990; Slater and Narver, 2000). The results of many studies show that employees need clear directions regarding their work environment, in another word, the task and job design should be given a higher priority among employees. Job design can be conceived as being similar to an aspect of the job which facilitates the development of structural, social, and financial bonds.

According to Herzberg (1966) the leading dissatisfactions are company policy, supervision, relationship with line manager or owner, work conditions, salary, and relationship with peers. The leading satisfactions of a job are achievable, recognition, the work itself, responsibility, advancement, growth and so on.



**Figure 1:**  
Factors affecting Job Satisfaction (Herzberg, 1966)

## Research Methodology

- **Population and Samples**

The population of this research is employees of Palm Oil Company in South Jakarta, Indonesia. This sample is used due to time and monetary limitation. According to company employees' database in 2013 there are 450 employees. Quota sampling will be used in this study. This is to ensure that certain groups are adequately represented in the study through assignment of a quota (Sekaran and Bougie, 2013). Generally, the quota fixed for each subgroup is based on the total numbers of each group in the population and convenience sampling method is used. The 50 employees from the populations (see Table 1) are the samples for this study. Furthermore, Roscoe (1975) as cited in Sekaran and Bougie (2013), uses the rules of thumb for determining sample size. One of the rules of sample sizes which is larger than 30 and which is less than 500 are appropriate for most research.

Department	Employees	Samples
Operation	112 (24.89%)	12
Human Resources and General Affairs	53 (11.78%)	6
Sales and Marketing	119 (26.45%)	13
Finance and Accounting	42 (9.33%)	5
Others	124 (27.55%)	14
Total	450 (100%)	50

**Table 1: Data of Employees**

- **Design**

In order to achieve the purpose of this research the regression analysis is used to discover the influence of internal market orientation on employee job satisfaction. According to Sekaran and Bougie (2013), regression analysis can suggest that there is influence of independent variable on dependent variables. The independent part is what the experimenter changes or enacts in order to do the experiments. It is well-known that the quantitative method is the research technique that is used to gather quantitative data or information dealing with numbers and anything that is measurable. The research framework of this study is developed based on the view presented in the literature suggesting that it significantly gives influences between the internal market orientations on the employee job satisfaction.

- **Instrument**

Measurement of variables is an integral part of the research and is an important design. The total of 65 items are constructed consisting of 43 items that represent the independent variables and 22 items that represent the dependent variables. Internal market orientation items are adapted from Gounaris (2008). The job satisfaction items are adapted from Weiss et al. (1967).

- **Reliability and Validity**

Data collection is performed through questionnaire method applied to employees with face to face interviews. Before the survey, pilot study is conducted to realize the validity and reliability of the study. The questionnaire form consists of 65 questions.

The test was conducted to test the validity of each item in the statement for measuring its variables. The validity testing in this research was conducted by correlating the scores of each statement presented to respondents with the total score for all items. Correlation techniques are used to test validity of the statements in this study and Pearson product moment correlation is also used. The questionnaire statements in this research are valid. Confidence analysis is implemented and confidence coefficients are calculated to achieve consistency of questions each other and homology in the measurement. The reliability of the questionnaire was tested by Cronbach's Alpha or called Alpha Coefficient to show internal consistency of the questionnaire. According to Sekaran and Bougie (2013), the closer the reliability coefficient of 1.00 the better it is. In general, reliabilities which are less than 0.60 are considered poor; those in the range of over 0.80 are considered good and acceptable.

<b>Variables and Dimensions</b>		<b>Numbers of Item</b>	<b>Cronbach Alpha</b>
<b>Independent Variables</b>			
1.	Internal Market Research	17	0.77
2.	Internal Communication	10	0.65
3.	Internal Response	16	0.73
<b>Dependent Variables</b>			
1.	Job Satisfaction	22	0.71

**Table 2: The Results of Reliability Analysis**

- **Data Analysis**

The analysis used in this study is undertaken in two stages. In the first stage, the overall reliability and validity of internal market orientation and job satisfaction are measured. In the second stage, it measures the influence between two variables using the covariance based SPSS. These steps are discussed in the following subsections.

## **Results**

A total of 50 questionnaires were distributed to staff at private sector industry (a palm oil company) in South Jakarta. The response rate is 100%. The Majority of respondents are male (60%). Their education background is divided into four categories (i.e Diploma, Degree, Master and PhD) and most of the respondents' education backgrounds are Degree and Diploma with the percentage of 58% and 26% respectively. From the demographic variables, it can be seen that many of the staffs in this company have the length of services between 1 to 5 years (52%). The company staff's age range is from 26 to 55 years where 48% of them are between the age of 26 to 35 and 18% of them are in the age between 36 to 45 years.

- Correlations Result**

This research uses correlation analysis Pearson product moment correlation analysis to discover the correlation between internal market orientations variables and job satisfaction. The hypothesis formulation is described in the following:

H<sub>0</sub>: There is no significant relationship between internal market orientation and job satisfaction.

H<sub>1</sub>: There is a significant relationship between internal market orientation and job satisfaction.

The result is shown in the following table:

**Table 3:**  
**Correlations result between variables**

	1	2	3	4
1. Job Satisfaction	1	.466**	.467**	.620**
2. Internal Market Research		1	.419**	.436**
3. Internal Communication			1	.600**
4. Internal Response				1

\*\*. Correlation is significant at the 0.01 level (2-tailed).

The result indicates that all the three dimensions of internal market orientation are positively correlated with job satisfaction. The three dimensions of internal market orientation are internal market research, internal communication, and internal response, with the coefficient value of 0.466, 0.467 and 0.620 respectively with overall job satisfaction.

- Regression Analysis Result**

Regression analysis is used to explore predictive ability of internal market orientation on job satisfaction. The hypothesis formulation is described in the following:

H<sub>0</sub>: There is no significant influence internal market orientation on job satisfaction.

H<sub>1</sub>: There is a significant influence internal market orientation on job satisfaction.

The result is shown in the following table:

**Table 4:**  
**Regression of internal market orientation on job satisfaction**

Model	Unstandardized Coefficients		Beta	t	Sig.
	B	Std. Error			
(Constant)	46.852	17.474		2.681	.010
1 Internal market	.662	.217	.483	3.049	.004
Internal comm	-.125	.311	-.058	-.402	.689
Internal response	.029	.232	.018	.123	.903

a. Dependent Variable: job satisfaction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.470 <sup>a</sup>	.221	.170	3.042

Table 4 illustrates the regression results of individual internal market orientation dimensions and job satisfaction. The result reveals that only 22.1% (R Square=0.221) of the variance in job satisfaction that has been significantly explained by the three dimensions of internal market orientation, namely internal market research, internal communication, and internal response. The result also indicates that one dimension of internal market orientation correlates with job satisfaction at  $p \leq 0.05$ . The dimension is internal market research. Internal market research is found in the most important factor in explaining job satisfaction because of its high beta value of 0.483, while internal communication and internal response have beta value of -0.58 and 0.18 respectively.

## Discussion

There is a significant relationship between the overall internal market orientation and the overall employee job satisfaction. The correlation result reveals positive relationship between internal market orientation variables and the overall job satisfaction. This result sets forward that internal market orientation and employee job satisfaction are associated with each other. In other words, the positive correlation between internal market orientation and employees job satisfaction as indicated in this research are in line with what has been discussed by Gounaris (2008). He says that adopting an internal market orientation indicates an integrated kept organization. Therefore, the aim of the internal market orientation is excluded to produce employees' job satisfaction.

Meanwhile, regression analysis indicates that the dimensions of internal market orientation consist of internal market research, internal communication and internal response. It can be seen that only 47% of the variance are explained by the independent variables where only internal market research is significant to the job satisfaction. Lings (2004) discusses that internal market orientation is about identifying and satisfying the wants and needs of employees as a requirement for satisfying the customers.

Numerous limitations exist throughout this research. This limitation includes the sample, which is only in one private company due to time and monetary limitation. This result may not apply in other organizations because there is a different management system, policies, and culture within companies.

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# Maintenance Activity and Spare Part Optimization for the Critical System on Mechanical Plant Using Reliability Centered Maintenance (RCM) at PT Pertamina Geothermal Energy Kamojang Area

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## Abstract

Pertamina Geothermal Energy (PGE) is a company of PT Pertamina (Persero), which has been established since 2006 and has already accepted an instruction from the governor to develop 15 Geothermal Companies in Indonesia. The new era of geothermal energy was started by the opening of Geothermal Kamojang field on 29<sup>th</sup> January 1983. The PLTP Kamojang Unit 4 is one of the plants owned by PGE, which is located in 41 Km southeast of Bandung, in sub-district of Ibu, Bandung district, West Java Province. The PGE PLTP Kamojang Unit 4 has 1 PLTP unit installed by the capacity of 60 MW. PGE KMJ 4 maintenance task is mapped according to the company's Key Performance Index target.

There are several special critical equipment which are classified by PGE KMJ 4 maintenance division. The critical equipment are steam turbine, main condenser, and hot well pump. All of those equipment have a vital role in the production, so the maintenance task is needed by every critical equipment's parts. The result of the research shows that those 3 equipment are in subsystem level 6 in the equipment hierarchy, it has 3 critical items. The critical components are then processed using Reliability Centered Maintenance and RCM++ software for optimizing effectively and efficiently the maintenance activity in terms of time and cost. The spare parts are divided into repairable and non-repairable categories. The spare parts availability become a supporting role in this maintenance activity, so it can work simultaneously with RCM preventive tasks.

According to the result of data processing in 3 critical subsystem components, it produces 47 tasks on condition and 32 failure finding tasks, with the variation of interval. The proposed maintenance cost in 1 year is \$17.242. It decreases by 13% from the existing maintenance cost. The non-repairable spare parts availability is 267 and the repairable spare parts availability is 5 in 1 year.

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**Keyword**—Geothermal, Reliability Centered Maintenance, Reliasoft, RCM++, Spare Parts, and Asset Management.

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## I. INTRODUCTION

The needs of the fuel energy in this world are increasing every time. According to the projection of International Energy Agency – IEA, until 2030 the demands of fuel energy is increasing by 45%, or the average point is increasing by 1.6% each year. The distribution of using the fuel energy in the world is  $500 \times 10^{15}$  BTU each year.

Besides oil, the world energies are distributed among coal, gasoline, and biomass, nuclear, hydro and renewable energy. The role of the renewable energy in electrical industry is increasing. Projected from 2010, the role of the renewable energy in electrical industry is placed in the second position of the coal and hydro. On the other hand, the rise of the fossil fuel use is the trigger for the climate changes. That is why IEA is suggesting to use the clean and efficient energy to suppress the carbon emission.

The sources of renewable energy are solar energy, wind energy, water pump energy, geothermal energy, and biomass energy. Geothermal energy is an energy that is extracted from the heat that is kept in the earth. It is from the tectonic activities in the earth since the planet was created. The heat is also from the sun heat that is absorbed by the earth surface.

Around 10 Giga watt of geothermal electrical plant was placed around the world in 2007, and the distribution was around 0.3% of the total of electrical energy in the world. The geothermal energy is friendly to nature because the geothermal fluid, which is the heat energy changed into electrical energy, and the residue of the fluid will be returned to the reservoir through the injection well.

Indonesia has 40% or 27.140 MW geothermal potential in the world. That is why geothermal energy is the best source of energy that needs to be invented in Indonesia. From the total of the potential, only 4.2% has already been used as the electrical energy.

The process starts when the steam in the earth running through the pipes in every well, then goes to scrubber to separate the steam with other materials such as other gases or material which is brought along the steam from the earth that can make a corrosive. Besides, the solid and liquid fluid will be injected back to the earth. After that, the steam will flow to the steam turbine to change the heat of the steam into mechanical energy then distributes it to the plant to change it into the electrical energy. The steam pressure that enters the steam turbine is 1.02 Mpa with the temperature of 181°C. Next, the fluid from the steam turbine will go to the condenser to change it from the steam into water. The others except for the water steam will go to the gas removal system to eliminate it. The water from the condenser will be injected into the earth and the others will be pumped using the hot well pump to the cooling tower to cool it down. Then the water will flow back again to the condenser which is used to change the steam from the steam into water.

A plant that is used every day must be in a good condition to produce electricity. This thing is based on the Key Priority Index (KPI) from PGE KMJ 4 as the minimum standard of electric production. So, the maintenance division and production division must have a standard operating procedure according to the company's KPI. One of the maintenance division strategies is classifying the critical equipment so it will get a special treatment. The critical equipment have a big role in the production of power plant, so it will need a special treatment and the right way, so the critical equipment can work properly.

The problem is what critical components are in the PGE KMJ 4 critical sub system by using matrix risk and what optimal maintenance policy is in PGE KMJ 4 critical sub system by using Reliable Centered Maintenance (RCM).

TABLE I.1 MPI PGE KAMOJANG AREA PLTP UNIT 4

Rank	Equipment	Score MPI	Critical Index
242	Main Oil Tank	245,2987	3
243	LRVP	265,4376	
244	Cooling Tower	396,0519	
245	Hot Well Pump	514,0873	2
247	Condenser	665,2175	1
249	Steam Turbine	689,5133	

Of all the mean of equipment above, the company has already classified the mean of equipment according to the critical index. The company has the Maintenance Priority Index (MPI), by classifying the critical level into 5 parts: Ring 1, 2, 3, 4, and 5. The Parameters that build the MPI are safety, maintenance cost, environment, the failure effect, ramp rate influence and the recovery time.

With these causes, the research will focus on the 3 critical equipment and the supporting equipment. That is why it needs an effective and efficient maintenance activities according to the failure characteristic in every 3 sub system components by using Reliability Centered Maintenance method. To make the managing of the management assets easier is by using the software reliasoft RCM++.

In deciding the optimal machine maintenance policy, considering the reliability by using the RCM method is supported by counting the needs of spare parts. Counting the spare parts is to know how many repairable spare parts and non-repairable spare parts to support the maintenance activities. To decide the right needed spare parts is by using Poisson Distribute as the

accurate foretelling technique. Poisson distribute is the same as the purpose of the research, which is deciding the total of the needed repairable and non-repairable spare parts.

## II. RESEARCH METHODOLOGY

The conceptual model is a description and explanation in the form of logic method and picture depicting the relationship variables and the method used to ultimately achieve the research objectives.

Required data for this research are primary data through direct field observation and secondary data are those which are already available so we can just search and collect them. The data was obtained from the office of PT. Pertamina Geothermal Energy Kamojang Area (PGE KMJ 4) entry operator.

The data have been collected and carried to the processing of such data. Conceptual models of this research can be seen in Figure II.1

Preliminary data required is a data overview of plant PGE KMJ 4 creating a new tool to facilitate the observation that the system break down structure of PGE KMJ 4 then narrowed to the critical systems of PGE KMJ 4, the Maintenance Priority Index (MPI). MPI will obtain critical system that will be the focus of research. Furthermore, critical systems will be filtered from any maintainable items really critical using the Risk Matrix.

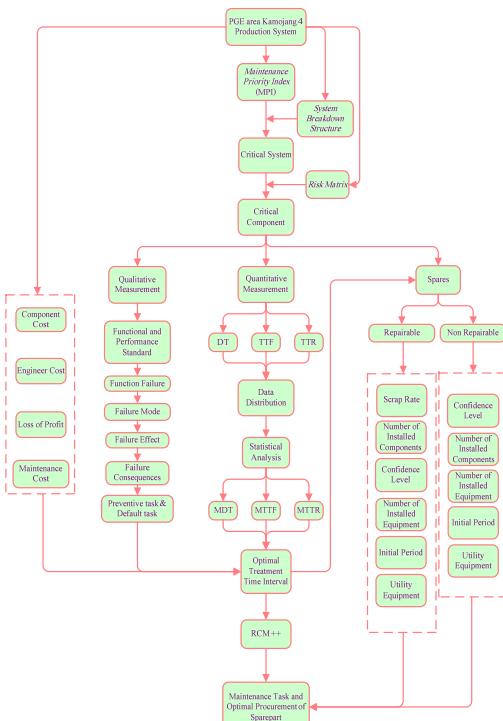


Figure II.1 Conceptual Model

Obtained critical component is subsequently processed in the two calculations. Qualitative measurement for the processing of RCM, with the order, the manufacture of FMEA, with the output of the proposed task list. Meanwhile, Quantitative measurement will calculate the optimal time interval for each task list RCM proposal processing result. Processed along with maintenance costs as the price of components, cost engineer wages, profit loss, and maintenance costs. Furthermore, the results of RCM, will be input into RCM++ to manage the assets easily in control and in evaluation.

The calculation of the optimal number of spare parts obtained from the time interval RCM results, divide into two spare parts: Repairable and Non-Repairable. The overall result of this study is the Task Maintenance and Optimization procurement of spare parts.

### III. ASSET MANAGEMENT

#### A. Maintenance management

Moubray (1991, page 6) defines the maintenance as an activity to make sure that the physical assets will work as the expectation of the user. According to Ebeling (1997, page 3) maintenance is defined as an activity so the sub system or the *failure* system will be repaired in the mean condition and in the mean period.

Maintenance management has purposes to dig, study, identify, measure, analyze, and to repair the functional *failure* equipment and to decrease the downtime, so it will increase the availability of the operated system. According to Marquez (2007), maintenance activities are classified as shown in the Figure III.1.

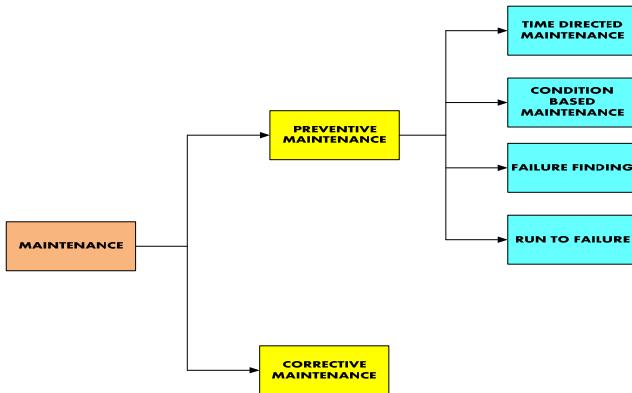


Figure III.1 Maintenance Classification (Marquez, 2007)

#### B. Reliability

Reliability is a probability of the components or the system which will inform the needed function in the mean period of time which is used while in operating condition (Ebeling, 1997 Dalan Kurniawan, 2008). The relation between the functional reliability R (T) with the functional intensiveness probability (pdf) can be explained systematically as follows:

$$R(T) = \int_T^\infty f(t) dt \dots \dots \dots (1)$$

The functional reliability for each distribution is:

1. Normal Distribution

$$R(T) = \int_T^\infty \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{(t-\mu)^2}{2\sigma^2}} dt \dots \dots \dots (2)$$

2. Exponential Distribution

$$R(T) = e^{-\lambda T} \dots \dots \dots (3)$$

3. Weibull Distribution

$$R(t) = e^{-\left(\frac{t}{\theta}\right)^\beta} \dots \dots \dots (4)$$

The functional of the failure rate is a failure level that happens in the meantime (T).

1. Exponential Distribution

$$\lambda(T) = \lambda \dots \dots \dots (6)$$

2. Normal Distribution

$$\lambda(T) = \frac{f(T)}{R(T)}$$

$$\lambda(t) = \frac{\frac{1}{\eta} \left( \frac{t}{\eta} \right)^{\beta-1}}{\int_0^{\infty} \frac{1}{\eta} \left( \frac{t}{\eta} \right)^{\beta-1} e^{-\frac{t}{\eta}} dt} \quad (7)$$

### 3. Weibull Distribution

$$\lambda(t) = \frac{\beta}{\eta} \left( \frac{t}{\eta} \right)^{\beta-1} \quad (8)$$

#### C. System Breakdown Structure

According to ISO 14224, SBS is a way to classify from item to the general group based on the system where it is done systematically.

Main category	Taxonomy level	Taxonomy hierarchy	Definition	Examples
Use/location data	1	Industry	Type of main industry	Petroleum, Natural gas, Petrochemical
	2	Business category	The type of business or processing stream	Upstream (E and P), Midstream, Downstream (Refining), Petrochemical
	3	Installation category	The type of facility	Oil/gas production, Transportation, Drilling, LNG, Refinery, Petrochemical (see Table A.2)
	4	Plant/Unit category	Type of Plant/Unit	Platform, Semi-submersible, Hydrocracker, Ethylene cracker, Polyethylene, acetic acid plant, , methanol plant (see Table A.3)
	5	Section/system	Main section/system of the plant	Compression, Natural Gas, Liquefaction, Vacuum Gas Oil, Methanol Regeneration, Oxidation Section, Reaction System, Distillation Section, Tanker Loading System (see Table A.4)
Equipment subdivision	6	Equipment (class/unit)	Class of similar equipment units. Each equipment class contains equal equipment units (e.g. compressors)	Heat Exchanger, Compressor, Piping, Pump, Boiler, Gas Turbine Extruder, Agitator, Furnace, Xmas-Tree, Blow-out Preventer (see Table A.1)
	7	Subunit	A subsystem necessary for the equipment unit to function.	Lubrication subunit, Cooling subunit, Control and Monitoring, Heating subunit, Pelletising subunit, Quenching subunit, Refrigeration subunit, Reflux subunit, Distributed control subunit
	8	Component/Maintainable Item (MI) <sup>a</sup>	The group of parts of the equipment unit that are commonly maintained (repaired/restored) as a whole.	Cooler, Coupling, Gearbox, Lubrication oil pump, Instrument loop, Motor, Valve, Filter, Pressure sensor, Temperature sensor, Electrical circuit
	9	Part <sup>b</sup>	A single piece of equipment	Seal, tube, shell, impeller, gasket, filter plate, bolt, nut, etc

<sup>a</sup> For some types of equipment, there may not be a MI. E.g., if the equipment class is Piping, there may be no MI, but the Part could be "Elbow".

<sup>b</sup> While this level may be useful in some cases, it is considered optional in this standard.

Figure III.2 SBS

#### D. Risk Matrix

The risk is defined as the combination of the likelihood of failure and the consequences of the danger (OHSAS 18001:2007). Every business ideally is doing the risk management to anticipate the unwanted dangers or accidents. One of the well-known risk managements is Risk Matrix.

Risk Matrix is a matrix that is used through the Risk Assessment to decide some risk levels, from every danger probability category and the effect of the risk. Risk Matrix is a simple mechanism to improve the risk visibility and help taking the management decisions.

#### E. Reliability Centered Maintenance

Reliability Centered Maintenance is one of the tools to make the maintenance according to the characteristic of the equipment or system. Smith defines reliability as probability that the item will do the needed function under the mean time period condition. Moubray defines RCM into 2 ways:

1. RCM is a process that is used to decide the physical assets specification in the operational context.
2. RCM is a process to decide what should to do to make sure that the physical assets are still doing what they want in the operational context.

The RCM process entails asking seven questions about each of the selected assets, as follows:

1. What are the functions and associated performance standards of the assets in its present operating context?
2. In what ways does it fail to fulfil its functions?
3. What causes each functional failure?
4. What happens when each failure occurs?
5. In what way does each failure matter?
6. What can be done to prevent each failure?
7. What should be done if a suitable preventive task cannot be found?

Furthermore, to facilitate answering 7 questions above, tools are created to facilitate the work, i.e. the table Failure Mode Effect Analysis (FMEA) and tables Logic Tree Analysis.

#### F. Reliasoft (RCM++)

This research will focus on the managerial of RCM output worksheet which is processed in RCM++, it is not yet discovered deeper by using the reliability in every interval and others. Therefore, the obtained output is a managerial for the company so that it can be easier in evaluating every task list from RCM.

#### G. Spare part management

Spare parts or components are one of the parts that build in one combination and have a specific function.

Non Repairable Spares are the spare parts that cannot be restored to the normal condition. After the components fail, it must be changed into the new one. Then they must be uninstalled and are replaced with the new spare parts from the store, and throw the failure components.

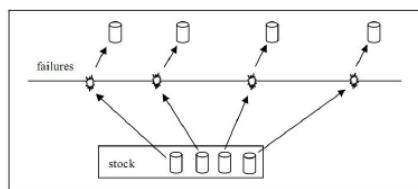


Figure III.3 the Representation of the Non-Repairable Components

In the calculation of the needed components the non-repairable spare parts, the total of the failure is the same as the total of the needed spare parts. The total of needed spare parts is the minimum value from (n) with the calculation as follow (Fukuda, 2008)

$$P \leq \sum_{k=0}^n \frac{(\lambda t)^k e^{-\lambda t}}{k!} = e^{-(\lambda t)} [1 + \lambda t + \dots + \frac{(\lambda t)^n}{n!}] \dots \dots (9)$$

Repairable spare parts are the repairable components. It is when the spare parts fail, the components will be taken away and changed with the same component type. Then the components will enter the repair shop for repairing. After it is finished, it will be stored in the store to be used for the next fail components.

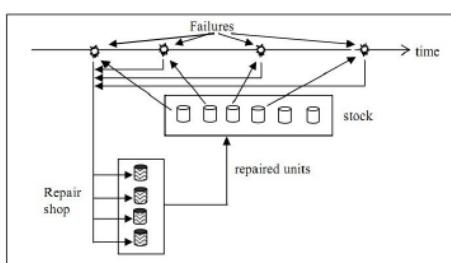


Figure III.14The Repairable Components Representation

The total of the fail/needed spare parts and the components (to scrap) according to the repairable item formulation:

$$\lambda t = \frac{1}{MTBF} t = \frac{AxNxDxT}{MTBF}$$

The average total of the fail/needed components (to repair) based on the repairable item formulation.

$$\lambda_2 t(\text{tarepair}) = \frac{1}{MTBF} t = \frac{AxNcxMxET}{MTBF} \dots \quad (11)$$

#### IV. CASE STUDY

The study focuses on 3 critical systems of the data MPI Company, which is Steam Turbine and Lube Oil System, Condenser System, Hotwell Pump System. They were done step by step as a reference. RCM processing is divided into 2 calculation, the measurement of qualitative and quantitative measurements

Qualitative Measurement

1. Making equipment in hierarchy (system breakdown structure) based on ISO 14224
  2. Processing the maintainable items on the system breakdown structure with a risk matrix to obtain the components really critical.
  3. Making Information Worksheet (Failure Mode Effect Analysis, FMEA) to determine the functional failure modes on a machine or system, so it is known the impact of such a failure.
  4. Analyzing the decision tree diagram on the worksheet decision to determine what kind of maintenance activities that match the characteristics of each component

Quantitative Measurement

Failure data, unstructured, on the company, were then calculated using secondary data, which is OREDA (Offshore Reliability Data).

The Failure Data in OREDA is served in the percentage of all Failure turbine, the total is  $2867, 13 \times 10^{-6}$  hour. Below is an example of the  $\lambda$  calculation from Thrust Bearing component:

The Failure Percentage can be seen in OREDA table = 0.22%

Total mean failure rate Gas Turbine =  $2687.13 \times 10^{-6}$

$$S_0 \lambda = 0.22\% \times 2087, 15 \times 10^{-6} \\ = 5,9117 \times 10^{-6}$$

After obtaining the value of  $\lambda$  the value of MTTF (Mean Time to Failure) was found by using this formula

Here is an example of Thrust Bearing MTIF calculation:

$$\lambda = \frac{1}{169156481}$$

If it is changed into years, so:

$$\text{The total hour in 1 year} = 365 \text{ days} \times 24 \text{ hours} \\ = 8760 \text{ hours}$$

$$\text{MTTF (year)} = \frac{169156.481}{8760} = 19,31010056 \approx 19.4 \text{ Years}$$

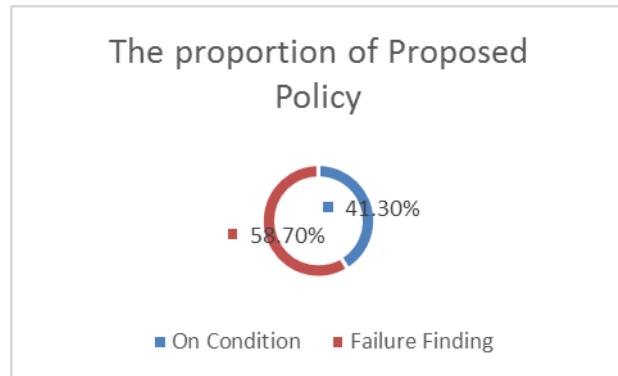


Figure IV.1 Proportion of Purposed Policy

Figure IV.2 describes the processing of the RCM. There is a scheduled task on 47.3% and 58.7% condition failure finding task. The next is the calculation of the optimal interval for each task proposal.

### *Interval of on-Condition*

The Number of  $\frac{1}{2}$  PF interval calculated calculation time checking and is repaired if found it will cause a malfunction. This includes procurement of spare time along with the required lead time and the time of reservation. So, the  $\frac{1}{2}$  of the PF interval is the time recovering all the actions that can anticipate the particular malfunction and the optimal interval for each task proposed.

PF interval is defined as the interval between the occurrence of failure and potential failure conditions of functional equipment (Moubray, 1991, p 17).

PF interval is obtained from direct interviews to the staff of PML in PGE KMJ 4.

An example of oil pressure monitoring maintenance interval calculation from MOP bearing component is:

$$\text{PF Interval} = \frac{1}{2} \times \text{PF Interval}$$

$$\text{Maintenance Interval (week)} = \frac{1}{4} \times 4 \\ \equiv 2 \text{ weeks}$$

Interval of Failure Finding

Scheduled failure-finding is an activity that is scheduled to check the hidden function regularly to know if there is a failure in the system. It is not a preventive task because it is checking the hidden failure which already happens. But it is concerned as the preventive because it is to prevent the next failure that can happen if the hidden failure is not detected.

The formula of the failure finding interval for single protective device is

$$FFI = \left( \frac{2M_{TNE} \times M_{TED} \times C_{ff}}{C_m} \right)^{1/2} \quad \dots \dots \dots (13)$$

Here is the example of Failure Finding Interval Calculation from the casing inspection:

$$\begin{aligned}
 M_{TIVE} &= 34.457, \text{ 8hours} \\
 M_{TED} &= 34.457, \text{ 8hours} \\
 C_{EF} &= \text{maintenance cost} + \text{loss of revenue} \\
 &= \$ 30.000 + \$ 42.000 \\
 &= \$ 72.000
 \end{aligned}$$

$$C_M = \$168.000$$

$$\text{Failure Finding Interval} = \left( \frac{2 \times \text{MTTF} \times \text{MTTD} \times \text{CFF}}{C_M} \right)^{1/2}$$

$$= \left( \frac{2 \times 34.457.8 \times 34.457.8 \times 72.000}{168.000} \right)^{1/2}$$

$$= 31.901,8 \text{ hours}$$

The total of hour in 1 year = 365 days  $\times$  24 hours

$$= 8760 \text{ hours}$$

$$\text{FFI (years)} = \frac{31.901,8}{8760}$$

$$= 3.687 \text{ years}$$

$\approx$  3 years 7 months

After all the tasks proposed computed interval, RCM ++ is used to allow companies to control and evaluate the existing task, and to manage asset management. The data required are:

1. Breakdown System Structure
2. FMEA
3. RCM Worksheet
4. Task List RCM Worksheet
5. Optimal maintenance time interval
6. Reliability Policy from every component
7. Reliability from every component
8. Probability of Failure from each component
9. Task duration of each task list
10. Task crew from each task list
11. Cost for each task list
12. Task Consequences (bring the system and item down or no)
13. Target Reliability and Availability
14. Current Reliability and Availability

The use of RCM++ software makes an easier way in classifying the task according to the plant condition, whether the plant can be done when the plant is producing or not.

The task classification is also based on failure mode, so it makes an easier way in completing the task. Other than that it is also easier for the company to evaluate every task, because it is featured with reliability and availability target in the software. The next is classification based on the plant condition.

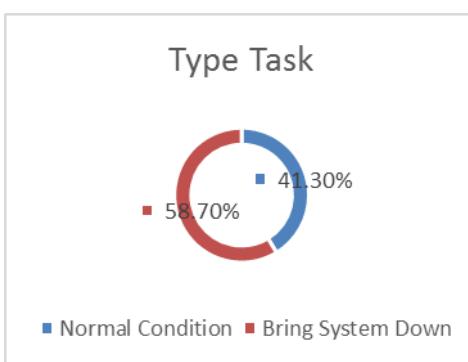


Figure IV.2 RCM++ Type Task

#### Schedule on-Condition Cost

Scheduled on-Condition Thermal Imaging:

Task Duration:

Task Duration on-Condition = 15 minute

Total Task = Total Task for Thermal Imaging

Total Task for 1 Year (1M) =  $\frac{\text{Total Weeks for 1 years}}{1 \text{ week}}$

$$= \frac{15 \times 1}{1}$$

$$= 26 \text{ task}$$

Maintenance cost (per hr) = \$6

Cost =  $\text{Task Duration} \times \text{Total Task} \times \text{Task for 1 Year} \times \text{Cost}$

$$= 0.25 \times 3 \times 12 \times 6 = \$54$$

Table VI.1 Maintenance Cost Scheduled On-Condition

Maintenance Type	Task Duration for 1 Year (hour)	Cost per hour	Cost
On Condition 2W	377	\$6	\$2.262
On Condition 1M	253,2	\$6	\$1.519
On Condition 2M	46,5	\$6	\$279
On Condition 3M	73	\$6	\$438
<b>TOTAL</b>			<b>\$4.498</b>

#### Failure Finding Cost

Failure Finding Cost 2 Years

Total Task Duration = 4 hour

Maintenance Cost / hr = \$8

Cost =  $\text{Total Task Duration} \times \text{Maintenance Cost}$

$$= 4 \times \$8 = \$32$$

Table VI.2 Maintenance Cost Failure Finding

MAINTENANCE TYPE	TOTAL TASK DURATION (HOUR)	MAINTENANCE COST (HR)	COST (\$)
FAILURE FINDING (2Y)	4	\$12	\$48
FAILURE FINDING (3,7Y)	118	\$12	\$1.416
FAILURE FINDING (4,2Y)	20	\$12	\$240
FAILURE FINDING (4,7Y)	53	\$12	\$636
FAILURE FINDING (6,8Y)	555	\$12	\$6.660
FAILURE FINDING (7,6Y)	120	\$12	\$1.440
FAILURE FINDING (56,2Y)	192	\$12	\$2.304
<b>TOTAL</b>			<b>\$12.744</b>

Table VI.3 Comparison between OC Cots and FF Cost

Existing	\$22.332
Proposed	\$17.242
Difference	\$5.090

Percentage	13%
------------	-----

The compared task is PdM task and Existing Minor Turn Around task. Even though the cost percentage is reduced to 13%, the existing minor turn around activity can be changed to failure finding task with the academically calculated interval. The existing maintenance activity already fulfills the Key Priority Index (KPI) of company, this is very natural because the plant is still new and the lifetime is still long. So, the fatalistic failure is not yet obvious. But as the time goes by, to achieve the world class power plant planned by PGE KMJ 4, there must be some repair in some aspects. One of the aspects is maintenance aspect, improving the maintenance using the RCM. The result of RCM will be focused on every Failure characteristic and the causes. With this approach, more effective and efficient maintenance policy will be obtained in preventing the failure of critical equipment.

One of the ways is reducing the minor turn around activity by scheduled on condition output task list of RCM. So, Turn Around is only held every once in 4 years. It can be avoided that Turn Around is a vital preventive maintenance activity, so it can eliminate the Turn Around activity's easily.

In this research, deciding the maintenance task is done by component step of critical sub system. Deciding the maintenance time interval is based on the failure record in OREDA, the observation's result and interview with some PGE KMJ4's maintenance workers. According to the result using RCM, the new maintenance policy consists of 47 Scheduled on Condition Task and 32 Scheduled Failure Finding Task. With the comparison task duration of 41.3% and 58.7%. The Scheduled On-Condition proportion measurement unit is 1 year operation. The unit for Failure Finding is 1 interval of Failure Finding.

In the task of processing the results of the RCM proposal, there are two types of tasks that can be applied in PGE KMJ 4. In the task Schedule on Condition and Failure finding, the second task is selected according to the characteristics of the failure and the RCM decision worksheet. There is the task of the Time Based replaced or discarded such as typical failure and weigh the cost side. Running to failure will be more effective and efficient on maintainable components or items that could potentially fail during operation. This results from the costs incurred to replace a component on a regular basis will be larger than letting it failure components and replace them with new ones while experiencing failure. It can be anticipated with the optimal procurement of spare parts. When the mechanical seal on the pump hot well malfunction, it will immediately be replaced by the existing stock of spare parts. It is more efficient than specifically schedule on the optimum time to replace the mechanical seal. Several other components also have an almost similar case, but most of the spare parts on the turbine will be checked regularly and replaced at 4 major annual over hauls so as to not selected task time based on three critical subsystems raised in this research.

### *Spare part Optimization*

There are two types of spare parts: Repairable and Non Repairable spare parts. Of 3 critical systems, there are 63 types of non-Repairable parts are classified as consumable parts. Of the 63 types of these, as many as 267 parts procurement needed for safety stock for 1 year, with a 95% confidence level.

### *Calculation of Gasket 10K-150*

$$\text{MTTF} = 39016,8$$

$$A \text{ (number of component)} = 2$$

$$P \text{ (Confidence Level)} = 95\%$$

$$N \text{ (Number of Unit Eq)} = 1$$

$$T \text{ (Initial Period)} = 12$$

$$M \text{ (Utility Op.Machine)} = 720$$

The calculation of  $\lambda t$ :

$$\lambda t = \frac{A \times P \times M \times T}{MTTF} = \frac{2 \times 0.95 \times 720 \times 12}{39016,8}$$

Table IV.4 Calculation of Gasket 10K-150

RF GASKET 10K-150					
K	EXP(-λt)	(λt) <sup>k</sup> /k!	AL i	Probability	AL
0	0,80136144	1	0,80136144	0,801361438	< 95%
1	0,80136144	0,2214432	0,17745604	0,978817479	< 95%

Based on the above calculation, the number of mesh needed to be able to meet 95% as much as the availability for 1 year is 1.

As for the Repairable spare, there are 4 types of parts, and it takes as much as 5 pieces for the procurement of safety stock for 1 year with a confidence level of 95% and scrap at 20%.

#### Calculation Requirement of Main Stop Valve

MTTF = 37590, 3 hour

MTTR = 10 hour

R (Scrap Rate) = 25%

A (number of component) = 1

P (Confidence Level) = 95%

N (Number of Machine/Unit) = 1

T (Initial Period) = 12 months

M (utility/Opt. Machine) = 720 hour/month

The calculation of  $\lambda_1 t$ :

$$\lambda_1 t = \frac{A \times N \times M \times T}{M T T F} = \frac{1 \times 1 \times 720 \times 12}{37590,3} = 0,2298$$

$$\lambda_1 = R \times \lambda_1 t = 0,25 \times 0,2298 = 0,0574$$

The calculation of  $\lambda_2 t$ :

$$\lambda_2 t = \frac{A \times N \times M \times T}{M T T F} = \frac{1 \times 1 \times 720 \times 0,0574}{37590,3} = 0,0002$$

Table IV.5 P1 Probability Calculation

K	EXP(-λt)	(λt) <sup>k</sup> /k!	AL i	Probability	AL
0	0,9441581	1	0,9441581	0,944158115	< 95%
1	0,9441581	0,0574616	0,0542529	0,998410981	> 95%

Table IV.6 P2 Probability Calculation

K	EXP(-λt)	(λt) <sup>k</sup> /k!	AL i	Probability	AL
0	0,999734	1	0,999734	0,999734009	> 95%
1	0,999734	0,000266	0,000266	0,999999965	> 95%

Table IV.7 Probability P1 and P2 Main Stop Valve

i	P(i; λ1=0,0459)	P(i; λ1=0,0002)
0	0,944158115	0,999734009
1	0,998410981	0,999999965

Table IV.8 Calculation Requirement Main Stop Valve

P(n-1)	AL	Note
P(0)	0,9441581	< 95%
P(1)	0,998411	> 95%

Based on the needs of Main Stop Valve calculation tables above, so to be able to meet the 95% availability of Main Stop Valve for 1 year, the company must provide 1 piece of spares. Where (n-1) = 0 then the result n = 1 piece component

Repairable spare parts are parts that can repair not at the time when it is malfunctioning. Repairable spare parts have to use a different number of each kind. That number is the number or value of scrap rates, the amount of usage figures that are within the tolerance of the components of the company and the ability to continue operating after repairs before being replaced with new parts. The Scrap rate in the study of Repairable spare parts this time is 20%, meaning that parts in question can be reused after 5 times the failure and repair. The smaller the scrap rate, the higher the risk. Because of the smaller numbers mean scrap rates are increasingly being carried out repairs and reuse these parts before completely replaced with new parts. This affects the function of the parts to sustain the function of equipment or a system where the parts are located.

As for the spare Repairable and Non Repairable have the same level of Confidence, confidence level is a safe level where the spare would certainly meet the 95% when needed. As warranty of parts procurement. Confidence level values obtained from the policy of the company or expert judgment of the expert staff of the company. The smaller the confidence level the more vulnerable parts needs are not met. Meanwhile, the higher the value, the confidence level will more likely be available in the spare time needed.

#### V. CONCLUSION

After building the PGE KMJ 4 Breakdown System Structure, the 3 critical equipment can be obtained. They are steam turbine, main condenser, and Hotwell pump in level 7. The next level describes that in level 8 there are 30 sub equipment. The next level is level 9, in which there are 24 components. Those sub equipment and components will be processed by using the risk matrix in the next process to obtain the critical components.

Reliability Centered Maintenance (RCM) is used to decide the right preventive maintenance activity for the critical equipment. According to the result of RCM, there are some new maintenance policy. There are 47 scheduled on condition and 32 failure finding tasks

Based on the research, the RCM method can reduce the activity of PGE KMJ 4, by the Schedule On-Condition in a shorter time. In addition, the turnaround minor, which is usually performed 1 or 2 years, the company is also reduced by the activity once Failure Finding by the optimal interval. With cost savings of 13% from the previous treatment. Procurement of spare stock in 1 year proposed to maximize the maintenance activities at PGE KMJ 4.

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# Organizational Change Dynamics: A Learning Organization Process toward World Class Organization (Study at Private University)

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## Abstract

Change is essential for every organization to survive and grow through environmental changes. Having the strong urgency does not make the organizational change management easy. The purpose of this study was to describe the learning organization process of a private university towards "A World Class University". The study also identified how the organization faced the challenges during organizational changes and how the leaders handled them. The study used qualitative inquiry and phenomenology design to understand the natural phenomenon. The data was collected from interviews, observation, and documentation. The interview involved 11 subjects with different roles and positions. The study found that the organizational change dynamics happened in five phases: drive-forces, goals, challenges, strategies, and results. Based on Lewin's three-step change model, the organizational change is on "movement" because it is still going on and the culture has not transformed.

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**Keywords:** Organizational Behavior, Change Management, Learning Organization, Leadership

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## 1. Introduction

Z-University is a merger result of four higher education institutions under a foundation owned by a private company in Bandung, named A-School, B-School, C-School, and D-School. Z-University was officially launched in August 2013 by the Foundation. Thus, the formers become an organization—Z-University, which has a vision to be "A World Class University".

The background of the organizational change was based on the interview result with Mr. J as former Chairman of Transformation Team II on December 13, 2013 at his office. The results were as follows: supporting government's economic development programs (MP3EI) in human resource area, increasing effectiveness and efficiency of resource management, and increasing organizational competitiveness through global competition. The strong urgency and certain goals didn't make the organizational change easily Mr. J said that there were sectorial egos from the academic community as dominant resistance to change. Mr. K as ex. Chairman of Transformation Team I, in a mass media publication, said that there were some pros and cons as the reaction to the organizational change from the organization's members.

Conducting organizational change is never easy, there will always be resistance to change that can impede the organizational change and become an obstacle to the organization to reach the goals of change itself. But, "Change or Die!" is a challenge to leaders and managers today. Organization needs to adapt to keep alive and grow well facing the environmental change dynamics. [1]

Leaders play a big role in the organizational change to establish the organization's success story. Seven leaders' basic roles in merger (as a kind of the organizational change) are: formulating vision and strategic plan, building effective communication, building positive organizational culture, keeping the fairness, negotiating and handling conflict effectively, solving problem and making decision, managing change and uncertainty. [2]

In leadership theory, the main actors of the organizational change is the leaders. Meanwhile, the organization consists of not only the leaders, but also other members who determine the organization's performances, including the success of organizational change. It is just not possible any longer to "figure it out" from the top, and has everyone else following the orders of the "grand strategist." The organization which has member's commitment and capacity to learn is called learning organization. The ability to learn faster than the competitors may be the only sustainable competitive advantage, as the world becomes more interconnected and business becomes more complex and dynamic. Learning organization is not the nature of every organization, but it can be learned and built. [3]

Since the merger of four big organizations become a bigger one is a great phenomenon, the study about it has to be conducted. It takes the phenomenon as the study's topic, and Z-University as the study's object. Hence, eleven (11) persons with different roles in changes and various positions in the organizational membership as study's subjects.

The study is aimed to understand the organizational change management as a learning organization process in Z-University derived from the merger of A-School, B-School, C-School, and D-School. Moreover, the study is aimed to understand not only the challenges faced by the organization but also the way of the leaders to handle the challenges. Thus, the study can be a consideration for organizational change practitioners who want to build learning organization, be a reference for the readers and the next researchers, and be part of Z-University's life story.

## **2. Theoretical Framework**

The study used some theoretical framework which consisted of: organizational behavior, change management, learning organization, and leadership.

Organizational behavior is a field of study that investigates the impact that individuals, groups, and structure have on a behavior that within organizations, for the purpose on applying such knowledge toward improving an organization's effectiveness. Organizations face many challenges and opportunities in organizational behavior, some of them are: responding to globalization, managing workforce diversity, improving quality and productivity, improving customer service, improving people skills, stimulating innovation and change, coping the temporariness, working in networked organizations, helping in employees balance work-life conflicts, creating a positive workforce, and improving ethical behavior. [1].

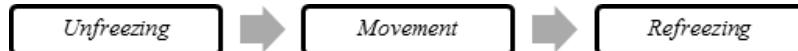
There is no organization in a particularly stable environment, so that organizational change becomes a must-to-do to face the environmental change dynamics. There are a lot of forces in organization environment stimulating for organizational change, six specific of them are: nature of the work, technology, economic shocks, competition, social trends, world politics.[1].

Organizational change never came easy; resistances to change exist even if the organization has a strong urgency to change. The resistance to change has both positive and negative impact for the organization. It does not only provide a degree of stability and predictability to behavior in positive way, but also hinders adaptation and progress of the organization. The resistance comes from the organizational members and organization. Individual sources consisted of habit, security, economic factors, fear of the unknown, and selective information processing. Organizational sources consisted of structural inertia, limited focus of change, group inertia, threat to expertise, treat to established power relationship, threat to established resource allocation. [1].

Whitaker [5] concluded from her study that in US 60 % of merger cases (as one kind of organizational change) experienced the failure in fulfilling the financial expectation, because of the lack of top level managers' concern to the organizational culture, both former organizations and the new organizational culture desired.

Seven suggested tactics for change agent in dealing with resistance of change are by: education and communication, participation, building support and commitment, implementing changes fairly, manipulation and cooptation, selecting people who accept change, and coercion. Hence, change agent can be described as persons who act as catalyst and assume the responsibility for managing change activities. [1].

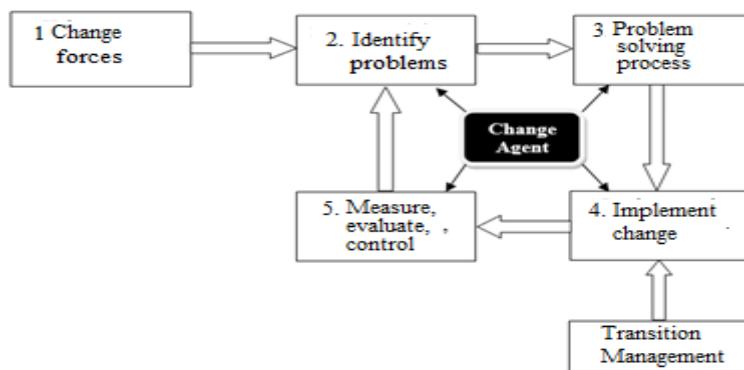
There are many approaches to manage organizational change. Kurt Lewin in Robbins & Judge [1] argued that successful organizational change should follow three steps: unfreezing the status quo, movement to desired end state, and refreezing the new change to make it permanent, as seen in fig.1.



**Fig.1. Lewin's Three-Step Change Model**

John Kotter in Robbins & Judge [1] built on Lewin's three-step model to create a more detailed approach in Kotter's eight-step plan for implementing changes with eight sequential steps: establish the sense of urgency, form a coalition with enough power to lead the change, create a new vision to direct the change and strategies for achieving the vision, communicate the vision throughout the organization, empower others to act on the vision by removing barriers to change and encourage risk taking and creative problem solving, create short-term wins that move the organization toward the new vision, consolidate improvement and make necessary adjustments in the new programs, reinforce the changes by demonstrating the relationship between new behavior and organizational success.

Tyagi quoted in Wibowo [4] developed a change model adopted from Lewin's three-step change model, which started from: change forces, problem identification, problem solving process, change implementation, measure-evaluate-control change results. Transition management should be held in the change implementation phase, hence change agents play the role as the doers of the change, as seen in fig.2.



**Fig.2. Tyagi's Change Model**

Amstrong [2] in his study found that leaders played a big role in the organizational change to establish the organization's success story. The organizational change success was examined from financial condition as long as the change process. Seven leaders' basic roles in merger, as a kind of the organizational change, are: formulating vision and strategic plan, building effective communication, building positive organizational culture, keeping the fairness, negotiating and handling conflict effectively, solving problem and making decision, managing change and uncertainty.

Leadership is defined as the ability to influence a group toward the achievement of a vision or set of goals. Leadership and management are two terms that are often confused, management coping with the complexity and leadership is about coping with change, but organizations need both strong leaders and strong management for optimal effectiveness. In today's dynamic world, the organizations need leaders to challenge the status quo, to create visions of the future, and to inspire organizational members to want to achieve the visions. The organization also needs managers to formulate detailed plans, create efficient organizational structures, and oversee day-to-day operations. [1]

Robbins & Judge [1] stated that "A learning organization is an organization that has developed the continuous capacity to adapt and change. Just as individuals learn, so too do organizations." Senge [3] stated that "Learning organizations is organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together."

Robbins & Judge [1] summarized five basic characteristics of a learning organization, these were: people put aside their old way thinking, learn to be opened with each other, understand how their organization really works, form a plan or vision that everyone can agree on, and then work together to achieve that vision. Three fundamental problems inherent in traditional organizations were fragmentation, competition, and reactivity.

Senge [3] explained the way building the learning organization that was consisted of five disciplines: personal mastery, mental models, shared vision, team learning, and system thinking as the fifth disciplines to integrate and to fuse five of them into a coherent body of theory and practice.

Personal mastery could be explained as the discipline of continually clarifying and deepening our personal vision, of focusing our energies, of developing patience, and of seeing reality objectively. Thus people with a high level of personal mastery committed to their own lifelong learning, so that personal mastery rolled as the learning organization's spiritual foundation. [3]

Mental models could be explained as deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action. The discipline of working with mental models should be started with turning the mirror inward; learning to unearth our internal pictures of the world, to bring them to the surface and hold them rigorously to scrutiny. It included the ability to carry on "learningful" conversations that balance inquiry and advocacy, where people expose their own thinking effectively and make that thinking open to the influence of others. [3]

Building shared vision could be explained as managing all organization to bind people around a common identity and sense of destiny. Genuine vision would inspire the people to excel and learn, not because they were told to, but because they wanted to. [3]

Team learning would start with "dialogue," the capacity of members of a team to suspend assumptions and enter into a genuine "thinking together." Team learning would be vital because teams, not individuals, has been the fundamental learning unit in modern organizations. [3]

System thinking could be explained as a conceptual framework a body of knowledge and tools developed over the past fifty years, to make the full patterns clearer, and to help us see how to change them effectively. [3]

Robbins & Judge [1] suggested how to make the organization to be a continual learner, they were: establish strategy, redesign the organization's structure, and reshape the organization's culture. Since organizational culture has become a basic challenge to change, organizational change should be followed by developing adaptive organizational culture and culture to change like stimulating a culture of innovation and creating a learning organization.

Cullen et.al. [7] found that organization's leaders had a significant role in the organizational change as a mediator of the relationship between employees' adaptability and perceptions of change, related uncertainty and employees' satisfaction and performance. In a successful organizational change case, the leaders tended to share a positive energy and build effective communication to all organizational members, so that the organization's members had a good perception on the change and adapted well to the change, and thus the organization's member satisfaction and performance were improved. Therefore, the organizational change ran successfully.

Nordin [8] who conducted a study in a higher learning institution found that there was a significant relationship between organizational commitment and leadership behavior on organizational readiness for change. Organizational change would be possible when the employees identified themselves with the organization. Organizational commitment will be beneficial to transactional leadership behavior during the early stage of change process, and thus may have a significant potential as change management strategy to implement successful change. The study also shows that continuance commitment indicates statistically significant moderate effect on the relationship between transactional leadership behaviors and readiness for change. Therefore, this implies that employee would be committed only if they find that leaving the organization would be a great loss, as they have invested their effort in the organization. In this sense, human resources management should also consider designing attractive rewards and benefits to ensure employee loyalty to the organization. However, further studies on longitudinal research methodology, which may be useful to validate the framework for organizational change, are suggested.

Weiner's [9] study showed organizational readiness as a shared psychological state in which organizational members felt being committed to the implementation of an organizational change and confident in their collective abilities to do so. He suggested the possibility that the strategies that change management experts recommend are equifinal which meant there is no 'one best way' to increase organizational readiness for change, but interrelated cumulative organizational behavior.

Maden's [10] study developed a conceptual model to transform public organization to be a learning organization. These organizations were primarily advised to develop a learning climate through the creation of a favorable atmosphere for individual and collective learning; and subsequently invest in organizational learning through higher knowledge creation and better knowledge management processes. It was believed that by examining the learning organization concept under the context of public organizations and proposing a novel model of transformation. The model was as seen in fig. 3.

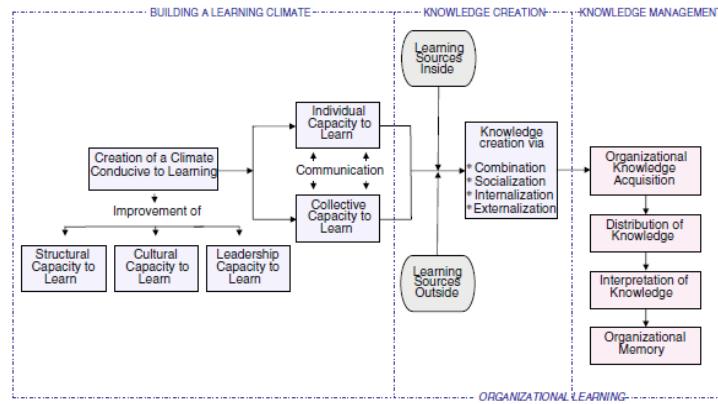


Fig.3. Conceptual Model to Transform Public Organization to be a Learning Organizations

### 3. Methodology

The study used qualitative approaches because of series of reasons. Creswell [6] said that qualitative study interpreted the philosophical assumption from the researchers. Philosophy meant the usage of abstract idea and belief about the study, hence philosophical assumption was the first pop-up idea to develop the research. The philosophical assumption was important to help the researchers to formulate the study's problems and questions. The study collected data that consisted of words and figures, not numbers. The data were collected from interview verbatim, videotape recording result, observation notes, official documents, mass media publication, and others. The data analysis was presented by the meaning of the data.

The study used phenomenology research design to identify the understanding of the phenomenon from multiple subjects' experience. Creswell [6] said that phenomenology research design tend to focus on the common data collected, among others. Phenomenology had a goal to take the insight from the multiple subjects' experiences. The researchers analyzed the multiple subjects' experience, developed relations and pattern from them, and then presented the model to answer "what" and "how" they experienced the phenomenon.

The study wanted to understand the organizational change dynamics in a private university—named Z-University that was seen by related parties in the process; they were: responsible parties in the organizational change to see what they had done to conduct the change, the parties who understood the technical process of the change, academic community as both the subject and the object of the change. Thus, the phenomenology research design was the most compatible for conducting the study.

The study had some steps, which were: orientation, preparation to field research, field research, data analysis, data interpretation. At the orientation stage, the researchers started to observe the object but not intensely. At the preparation stage, the researchers prepared all the things needed to do field research (i.e. proposed the counselor lecturers, wrote application letters as the permission to conduct the study and to collect the data) and also started to collect secondary data from mass media publication, official and non-official websites, official documents, etc. At the field research stage, the researchers collected both secondary data and primary data. On data analysis stage, the researchers analyzed collected data (primary and secondary data), the primary data collection had been stopped but secondary data collection still went on until the end of the study period. At the data interpretation stage, the researchers compared the data analysis result and theoretical reference with previous studies.

The study's object was Z-University and the subjects were 11 persons with different roles and positions, consisted of: 2 representatives of the Foundation, ex. chairman of transformation task forces, senior manager of resource, 4 leaders of four faculties, other academic community members (a structural officer, a lecture, and a student). The data were collected by triangulation technique that combined observation, in-depth interview, and documents. Triangulation technique helped the researchers to keep the objectivity of conducting the study.

### 4. Result and Discussion

#### 4.1. Result

The study's result came from data analysis collected from observation, documentation, and interview with 11 subjects. The subjects consisted of: Mr. J as ex. Chairman of Transformation Team II; Mr. K as ex. Chairman of Transformation

Team I and also Dean of A-Faculty; Mr. L as Dean of B-Faculty; Mr. M as the representative from C-Faculty leader and also a structural officer; Mr. N as ex. Chairman of Foundation's Strategic Alliance Directorate and also Dean of D-faculty; Mr. O as Senior Manager of Resources; Mr. P as Structural Officers; Ms. Q as a lecturer; Mr. R as a Foundation's representative; Mr. S as another Foundation's representative; and Ms. U as a student.

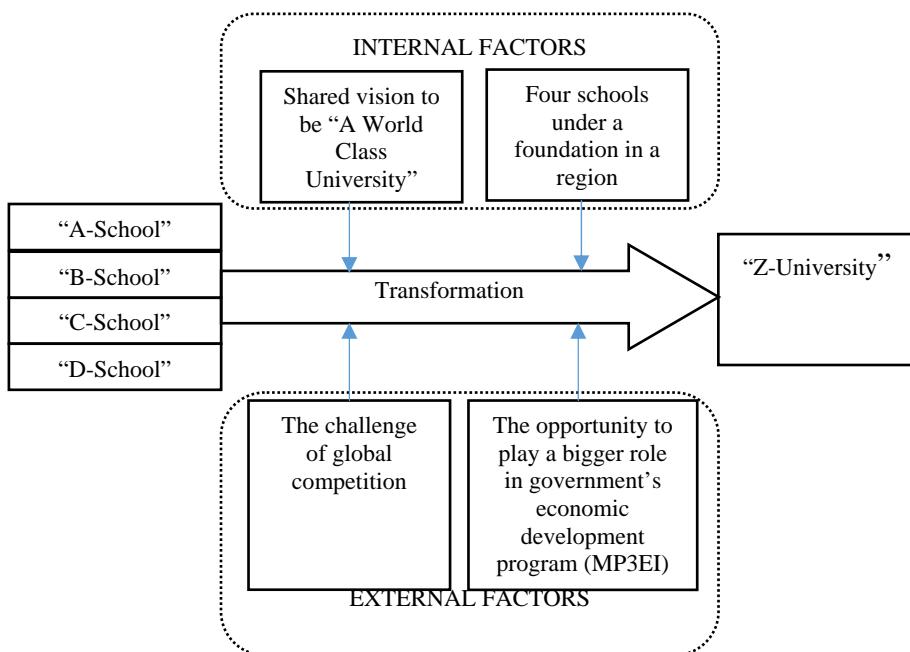
The result would be presented in five phases of the organizational change sequentially as followed: the organizational change drive-forces; the organizational change goals; the organizational change challenges; the organizational change strategies; and the organizational change results.

#### 4.1.1. The Organizational Change Drive-Forces

Z-University was a merger result from four higher educational institutions under a foundation: A-School, B-School, C-School, and D-School, said Mr. J as ex-Chairman of Transformation Team II. From Decision Letter from Education Ministry, it was known that after Z-University official launch, A-School became A-Faculty, B-School became B-Faculty, C-School became C-Faculty, and D-School became D-Faculty in Z-University.

The organizational change was driven by external and internal factors, Mr. J explained three of them: management of four schools under a foundation, the challenge of global competition, and the opportunity to play a bigger role in government's economic development program (MP3EI). Mr. S as the Foundation's representative explained that organizational change was driven by two internal factors, the existence of a shared vision to be "A World Class University" and the management of four schools under a foundation in a region that might allow for efficiency upgrading.

The researchers, based on the explanation above, concluded that the transformational change from A-School, B-School, C-School, and D-School to be Z-University was driven by several internal and external factors, the internal factors consisted of the existence of a shared vision to be "A World Class University"; and management of four schools under a foundation in a region, hence the external factors consisted of the challenge of global competition and the opportunity to play a bigger role in government's economic development program (MP3EI), as seen in fig.4.



**Fig.4. Organizational Change Drive-Forces based on Data Analysis**

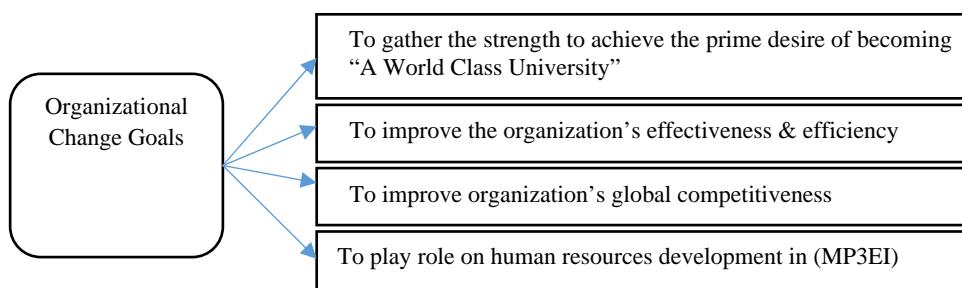
#### 4.1.2. The Organizational Change Goals

Mr. J as ex. Chairman of Transformation Team II said that organizational changes of four large higher education institutions to be a larger one was an effort to achieve the shared vision of becoming "A World Class University" by

gathering the power of the former-four. Resemble clarification was stated by senior manager of resources, who said that Z-University transformation was a decision to gather the strength to achieve common vision and mission.

Mr. J said that transformation of Z-University was a kind of reaction from the foundation to face the environmental changes, both internally and externally which were explained in the previous sub-section, so the goals of the organizational change were to play a bigger role in government's economic development program (MP3EI) by increasing contributions in human resources quality improvement, improving the organizational international competitiveness (including to enlarge the change to get research grants), and improving organizational effectiveness and efficiency.

The researchers, based on previous description, concluded that the organizational change had some goals: to gather the strength to achieve the prime desire of becoming "A World Class University"; to improve the organization's effectiveness & efficiency; to improve organization's global competitiveness, and to play role on human resources development in government's economic development program (MP3EI), as seen in fig.5.



**Fig.5. Organizational Change Goals based on Data Analysis**

#### **4.1.3. The Organizational Change Challenges**

The organizational change process experienced some challenges faced by academic community. Mr. J as ex-Chairman of Transformation Team II said that the biggest challenge of the mergers was the sectorial egos from several groups in the organization, a kind of superiority among others.

Mr. O as Senior Manager of Resource explained that various organizational working systems and mechanisms in the former organizations was a challenge to merger processes, meanwhile the biggest challenge for the organizational change was the culture. Moreover, the former organizations had a different culture that had been attached for long. Organizational culture became a big challenge in the organizational change because it was formed from specific habits pattern in various organizational aspects. The organizational change, which was followed by organizational restructuring, caused position and authority changing issues, not only on the leaders of former-four but also on the other organizational members.

Mr. M as the representative of C-Faculty leader explained that the new organizational structure drove to a "culture shock" condition to the organizational members because of rapid changes. The first Rector of Z-University who came from the outside of the Foundation said that a new formation on organizational structure drove communication challenge to the academic community, sometimes miscommunication and multi-perceptions could lead to misunderstanding and confusion of provided information. The organizational change also disturbed the comfort zone of many organizational parties. It demanded for adaptation both systematically from organizational leaders and individually from the other members for the new system made by the leaders. The organizational change demanded the organizational members to improve the competencies and capabilities such as English competencies, but sometimes the organizational members who felt under pressure experienced working spirit loss or reduced performance.

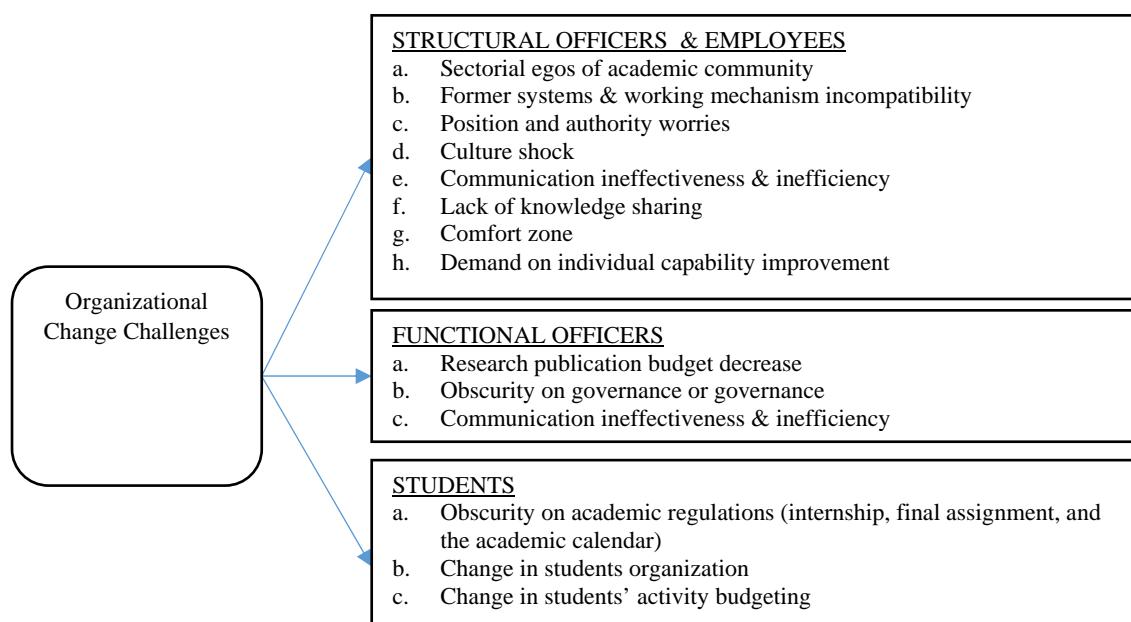
Mr. P as a structural officers said that having new organizational structure and new formation in units led to knowledge sharing, a structural officer said that the knowledge sharing occurred naturally in the way they worked but another structural officer said that it had not enough yet.

Ms. Q as a functional officer (lecturer) had not felt much of the organizational change impact because only a few policies for lecturers had been applied effectively at the end of February 2014. There was a new funding policy for lecturer's research publication that only covered registration fee. The lecturer gave some advices in organizational change implementation to the top level managers, they were: to make governance or governance guidelines, so the organizational

members have certain guidelines to do to face the organizational change; to improve communication quality so the information could be effectively received as it is presented; and to prepare information system capacity appropriate to entire academic community usage.

Ms. U as a student said that she felt the decline in several areas' quality of service, such as the financial system on the registration process and academic secretariat facilities. Students were confused about academic regulations due to the rapid changes, hence the socializations had not been intense and effective enough. Some students' confusions happened on the regulations of internship, final assignment, and academic calendar. Student organizations were changed structurally, consisted of Student Executive Board (BEM) and the Student Representative Council (DPM) that would exist only at the university-level and faculty-level, the emergence of several Student Association (HIMA), and the merger of the similar Student Activity Unit (UKM) at the university-level. The change of student organization structure was followed by the change of budgeting policies for student activities as a whole. Before Z-University Grand Launching, the student activity fund was given to each of former-four, hence it was centralized in the university-level. It would be a huge task to share it fairly to all parties.

The researchers, based on subjects' explanation above, concluded that the organizational change process experienced many challenges faced by the academic community as seen in Fig.6. Structural officials and employees faced: sectorial egos of academic community; former systems & working mechanisms incompatibility; position and authority worries; culture shock; communication ineffectiveness & inefficiency; lack of knowledge sharing; comfort zone; demand on individual capability improvement. Functional officers or lecturers faced research publication budget decreased; obscurity on governance or governance; communication ineffectiveness & inefficiency. Students faced: obscurity on academic regulations (internship, final assignment, and the academic calendar); change in students' organization; change in students' activity budgeting.



**Fig.6. Organizational Change Challenges based on Data Analysis**

#### 4.1.4. The Organizational Change Strategies

Mr. R, as a Foundation's representative said that the Foundation established three task forces to handle the change execution; they were: Strategic Alliance Directorate, Transformation Team I, and Transformation Team II. Strategic Alliance Directorate conducted study of initial organizational condition, made a conceptual model of organizational change, and focused to complete the academic document as the application of inauguration. Transformation Team I began the

implementation of the organizational change and improved the academic documents. Transformation Team II accelerated the implementation process, integrated the academic system, and established the transition senate.

Mr. S, as another Foundation's representative said that organization's fundamental aspect of Z-University—vision, missions, and goals—had been set by the task forces before the grand launching was held.

Mr. O, as Senior Manager of Resource in Z-University had an organizational structure which was different from the organizational structures of the other four former organizations. It also had new governance which was centralized in the university-level working unit. New personnel formation that could trigger gaps was anticipated by organizing a team building activity to create solidarity in the working unit and in the organization as a whole.

Mr. S, as a Foundation representative said that the leaders of Z-University composed an organizational strategic plan systematically.

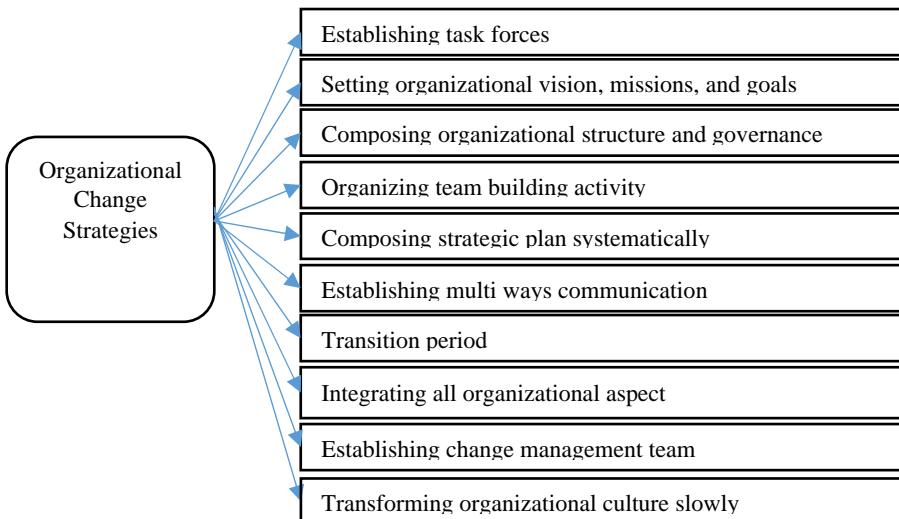
After organization vision, missions, goals, and strategies were set, the leaders built the communication in the organization. Communication building needed openness and positive thinking from all organization's members. The leaders built a two-way communication; the leaders not only gave top-down information but also accepted feedbacks from the other organization's members. Formal communication was built by series of meetings (at foundation-university-faculty-study program level), centralized lecturer's meetings, official websites, etc. Informal communication was built by sport activities, lunch coupons, family gatherings, etc. said Mr. M as the representative of C-Faculty leaders.

Mr. J said that at the end of his term period, his team suggested to establish a transitional period for about a year after the Z-University official launching. The transition period was used to continue the organizational change process which had not been done by the team. Transition period was applied to accommodate the interests of many parties in the organization, and it was used as an adaptation period for all members on the changes -. A lot of things had been done during the transition period; some of which are: refinement of organizational structure and governance, rearrangement and expansion of faculty program, the election of the new Dean for seven faculties, integration of all aspects of the organization, and the building of organizational culture.

Mr. O, as Senior Manager of Resource said that after Z-University officially launched, they established Change Management Team which was a group leader, tasked to oversee changes to achieve organizational goals in 2017 and to oversee all management aspects such as finance, human resources, logistics, etc.

Mr. O said that the organizational culture, as one of common issue key factors in the merger, was transformed slowly by Z-University. The culture should be the same as the academic atmosphere in university environment. It was adopted by the culture from owner organization. Z-University had series of core values as a compass for organizational behavior.

The researchers, based on the subjects' explanation above, concluded that Z-University had some strategies to organizational change process, ten of them were: establishing task forces; setting organizational visions, missions, and goals; establishing organizational structure and governance; organizing team building activity; composing strategic plan, managerial & budget plan, quick win and individual performance systematically; establishing multi ways communication; transition period; integrating all organizational aspect; establishing change management team; transforming organizational culture slowly, as seen in fig.7.



**Fig.7. Organizational Change Strategies based on Data Analysis**

#### 4.1.5. The Organizational Change Results

The change could be noticed by the difference between the input and the output. Organizational change results did not show the end of change, but described the final condition at the end of primary data collection period (March 13, 2014). There were some results of organizational change: visions, missions, and goals of the organization had been set by the task forces, hence the strategic plan had been composed by leaders of Z-University.

Mr. L, as a Dean in B-School said that Z-University had an organizational structure and governance that had been used since the organizational grand launching. Mr. P, as a structural officer, said that the working units in university-level were established directly under each of Vice Rectors and the formation consisted of the combination of former organizations' personnel. Mr. M, as another structural officer said that working units in faculty-level still exist as the representative from working units in university-level, so that the working system and mechanism had been centralized and faculties might be focus holding the three-promise of higher education (*Tridharma Perguruan Tinggi*).

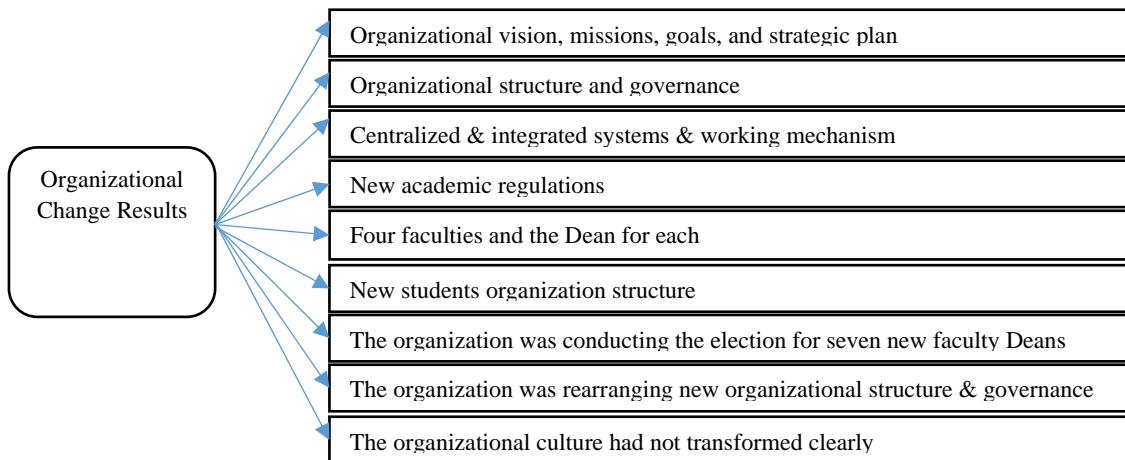
Mr. K said that four former organizations had turned into four faculties in Z-University which had a dean of each. Three of four Deans were the former organizations' chairman, hence the other one was the chairman of Foundation's Strategic Alliances (the first task force). At the end of primary data collection period, Z-University was conducting the election of new Dean of seven faculties which was planned to be inaugurated in April 2014.

Ms. U, as a student said that student organization had a new structure, the Student Executive Board (BEM) and the Student Representative Council (DPM) that would be exist at the university-level and faculty-level, the emergence of Student Association (HIMA), hence the Student Activity Unit (UKM) were merged at the university-level.

Some faculty leaders said that six months after grand launching, organizational culture had not been established. They said that top level manager did not focus on culture formation, but they focused on the restructuration and new governance establishment. They said that that organizational culture of Z-University would be formed naturally through provided facilities. Z-University held many activities supporting to natural interaction among organizational members. The acculturation happened slowly after the grand launching.

The researchers, based on the subjects' explained above, concluded that until the end of primary data collection period on March 13, 2014, the organizational change had some results, they were: organizational vision, missions, goals, and

strategic plan; organizational structure and governance; centralized & integrated systems & working mechanism; new academic regulations; four faculties and the Dean for each; new students organization structure; the organization was conducting the election for seven new faculty Deans; the organization was rearranging new organizational structure & governance; the organizational culture had not been transformed clearly, as seen in fig.8.



**Fig.8. Organizational Change Results based on Data Analysis**

The researchers, based on the data analysis, concluded that the organizational change of A-School, B-School, C-School, and D-School to be Z-University (from initiation of change in March 13, 2014) could be described by the organizational change dynamics, as followed: organizational change of drive-forces; organizational change of goals; organizational change of challenges; organizational change of strategies; and organizational change of result, as seen in fig.9.

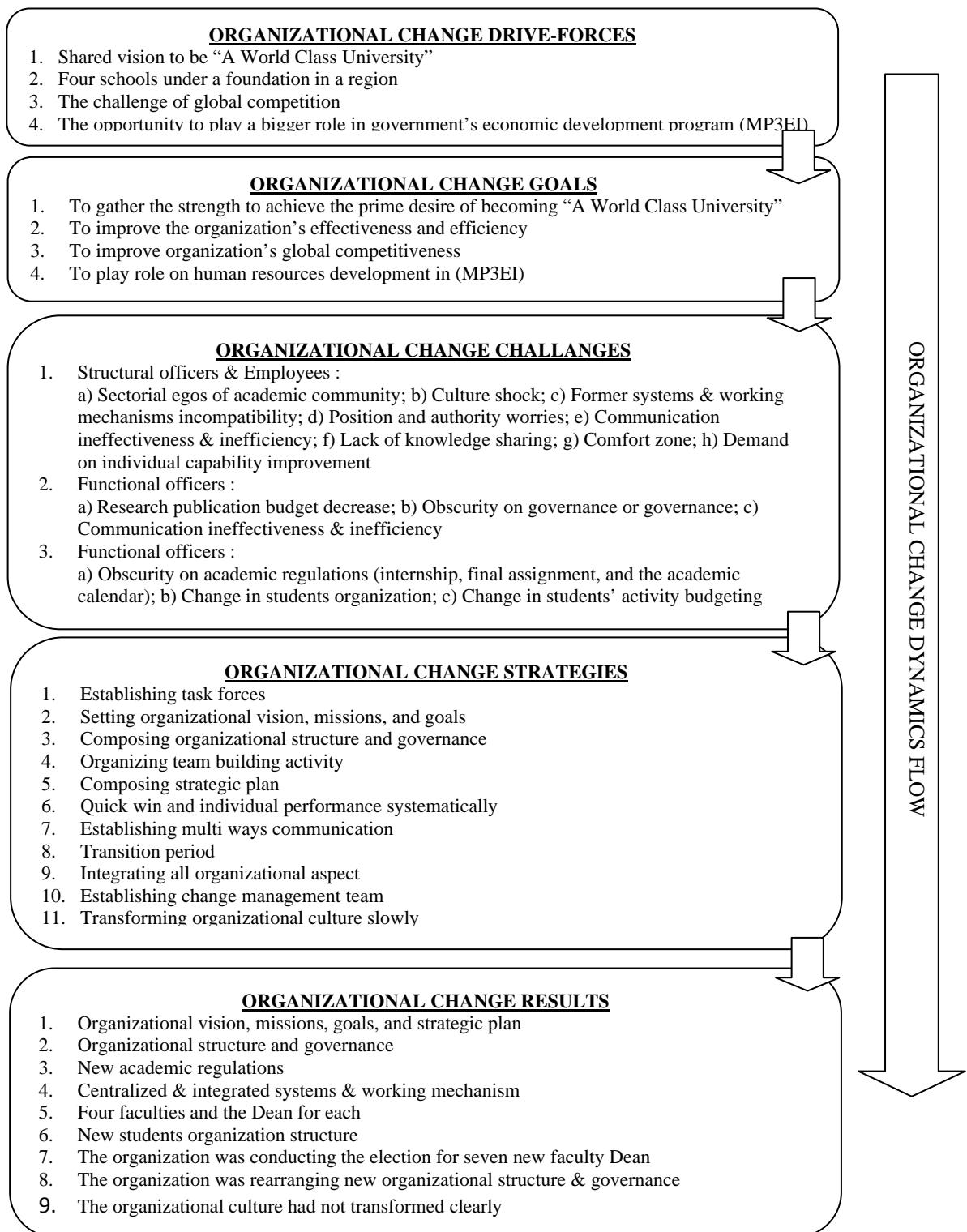


Fig. 9. Organizational Change Dynamics based on Data Analysis

## **4.2. Discussion**

Organizational change of drive-forces in A-School, B-School, C-School, and D-School to be Z-University, based on data analysis, came from both external and internal factors. The external factors consisted of the challenge of global competition and the opportunity to play a bigger role in government's economic development program (MP3EI), while the internal factors consist of the existence of a shared vision to be "A World Class University" and the ownership of four schools under a foundation in a region.

The rising global competition is still a strong force for the organization to conduct the organizational change, as Robbins & Judge [1]. Global competition cannot be avoided as a change drive-force when the organization has a desire to compete globally, like Z-University which aimed to be "A World Class University."

Four former organizations react to four main organizational drive-forces in the form of the decision to merge into one bigger organization. The decision came because of the urgency to change, which means the worries of organization's life facing the organizational change dynamics. This is like Robbins & Judge [1] theory that said, leaders and managers today are challenged by "Change or Die!" by the environment.

Organizational change decision as a product of the merger of the four has the same goals consisting of: to gather the strength to achieve the prime desire of becoming "A World Class University"; to improve the organization's effectiveness and efficiency; to improve global competitiveness, to play a role in the human resources development in MP3EI.

Just like another merger case, Z-University transformation aimed to optimize resource effectiveness and efficiency from former organizations. But unfortunately, 60 % of the merger case (as one kind of organizational change) failed to reach the change goals because of the lack of top level managers' concern to the organizational culture, as Whitaker [4] explained in her study result. Even if A-School, B-School, C-School, and D-School are owned by a foundation and frequently organized an official meetings, four of them had different backgrounds, different behaviors, different leaders, and different cultures. The biggest challenge faced by the task force of change was the sectorial egos from the organization's members.

Facing the challenges to change, the organization practices some strategies; there are ten of them based on the data analysis: establishing task forces; setting organizational visions, missions, and goals; establishing organizational structure and governance; organizing team building activity; composing strategic plan, managerial & budget plan, quick win and systematic individual performance; establishing multi-way communications; transition period; integrating all organizational aspects; establishing change management team; transforming organizational culture slowly.

Based on Tyagi's Change Model quoted in Wibowo [4] or fig. 2, shows that three task forces before official grand launching act as change agents in the organizational change. The first task force—Foundation's Strategic Alliance Directorate was used to identify problems as they made organizational change concept and plans, they solved the problems at top level managers in four former organizations as they worked until the declaration of merger agreement. The second task force—Transformation Team I started to implement the organizational concept and plans, but they faced a lot of problems from the lower level managers and another academic community. The third task force—Transformation Team II continued and accelerated the implementation process but they still faced the problems from the academic community.

The official launching had been organized on August 2013, and the three task forces had finished their term, but the implementation of the organizational change had not been done yet. As the data analysis result said that Z-University established a transition period for about a year after the official launching. Based on Tyagi's Change Model quoted in Wibowo [4] or Fig. 2, the transition management is part of the implementation process. It means that Z-University is at the Change Implementation Stage.

The organizational changed at the end of the data collection period in March 2013. Based on the data analysis, it had some results. They were: organizational vision, missions, goals, and strategic plan; organizational structure and governance; new academic regulations; centralized & integrated systems & working mechanism; our faculties and the Dean for each; new students organization structure; the organization was conducting the election for seven new faculty Dean; the organization was rearranging new organizational structure & governance; the organizational culture had not transformed clearly.

Based on Lewin's three-step change model in Robbins & Judge [1] or Fig. 1, the organizational change was on the movement step, because there were still changes organized and the culture had not been transformed.

Communication is the most vital in the organizational change period; effective communication will influence the perception of the organizational members about the positive impact of change. An effective communication is the mediator of conflicts of interest in the organization. This is the same as what Cullen et.al. [7] state that leaders have to build an effective communication between all organization's members, so that the organization's has a good perception about the change and adapt well to the change, and thus the organization's members have a good satisfaction and performance, which will make the organizational change run successfully. A good perception of change in the organizational change will create readiness to change and an adaptability of the organization's members.

Z-University created readiness to change step-by-step top down, because in leadership theory, a leader is a key person that plays a big role in the organizational change. As Amstrong [2] said that leaders played a big role in the organizational change to establish the organization's success story. The organizational change success was examined from its financial condition during the change process. Seven leaders' basic roles in merger, as a kind of the organizational change, were: formulating vision and strategic plan, building effective communications, building positive organizational culture, keeping the fairness, negotiating and handling conflict effectively, solving problem and making decision, managing change and uncertainty.

The leaders have the capacity to create a condition of ready to change from all organization's aspects, the leaders need to build the commitment from the organization's members, so they have confidence in their collective ability to face the change, as Weiner [9] had explained before.

## 5. Conclusion and Recommendation

The study was aimed to describe the organizational change dynamics in Z-University, the challenges they faced and the way the leaders handle them. Organizational change dynamics of Z-University happened in five phases: drive-forces, goals, challenges, strategies, and results.

Organizational change drive-forces, based on data analysis, came from both external and internal factors, external factors consisted of the challenge of global competition and the opportunity to play a bigger role in government's economic development program (MP3EI), hence the internal factors consisted of the existence of shared vision to be "A World Class University" and the ownership of four schools under a foundation in a region.

Organizational change, based on data analysis, had some goals: to gather the strength to achieve the prime desire of becoming "A World Class University"; to improve the organization's effectiveness & efficiency; to improve organization's global competitiveness, and to play role on human resources development in government's economic development program (MP3EI).

Challenges faced by the organization, based on the data analysis, came from many challenges which were faced by the academic community. Structural officials and employees faced: sectorial egos of academic community; former systems & working mechanisms incompatibility; position and authority worries; culture shock; communication ineffectiveness & inefficiency; lack of knowledge sharing; comfort zone; demand on individual capability improvement. Functional officers or lecturers faced research publication budget decrease; obscurity on governance or governance; communication ineffectiveness & inefficiency. Students faced: obscurity on academic regulations (internship, final assignment, and the academic calendar); change in students' organization; change in students' activity budgeting.

Knowing the urgency to change but facing the challenges to change, inspired the organization's leader to do some change strategies, based on the data analysis, ten of them were: establishing task forces; setting organizational vision, missions, and goals; establishing organizational structure and governance; organizing team building activity; composing strategic plan, managerial & budget plan, quick win and individual performance systematically; establishing multi ways communication; transition period; integrating all organizational aspect; establishing a change management team; transforming organizational culture slowly.

The organizational change, based on the data analysis, until the end of primary data collection period in March 13, 2014, the organizational change had some results; they were: organizational vision, missions, goals, and strategic plan; organizational structure and governance; centralized & integrated systems & working mechanism; new academic regulations; four faculties and the Dean for each; new students organization structure; the organization was conducting the election for seven new faculty Deans; the organization was rearranging new organizational structure & governance; the organizational culture had not transformed clearly.

The organizational change of Z-University has not completed yet, because at the end of the research period, the change was still going on and the organizational culture had not been transformed clearly. It was still in the “movement” step based on Lewin’s three-step model [1]. That is similar with Kotter’s eight steps to change [1] that the organizational change would end with the establishment of the organizational culture.

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# Polytechnics Produce Nation's Skilled Labour

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## ABSTRACT

This is a conceptual paper to study the education skills that are available in the Malaysian polytechnics which is one of the technical and vocational training institutions established to produce skilled workforce. The existing 33 polytechnics in the country which come under the purview of the Ministry of Education, Malaysia, offer a wide range of courses at diploma and degree levels. These institutions implement and follow the semester system in their academic calendar. There are three types of courses offered at the polytechnics, namely Engineering, Tourism & Hospitality and Commerce, and Information Technology and Communications. The education offered in these polytechnics emphasizes on two main aspects; theoretical and practical. This paper goes on to explore the role played by these technical and vocational training institutions in producing skilled workforce to fill positions such as technician, assistant engineer, engineer, assistant accountant, administrative assistant, information technology officers and other positions based on student eligibility.

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Keywords: education, skills, workforce, polytechnics

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## 1.0 INTRODUCTION

Malaysian polytechnics' history commenced with the establishment of Ungku Omar Polytechnic back in the year 1969. It was established under the United Nations Development Plan 1969 and is the first and the oldest polytechnic in Malaysia. The main purpose of this establishment was to produce skilled manpower in the technical and vocational field to meet the Malaysian workforce needs. The establishment of the polytechnic was later enhanced with the introduction of two subsections in the Education Act: Section 34 and Section 35 [1], which places its emphasis on upgrading existing skills and other vocational of technical trainings. These initiatives were taken to strengthen the role of polytechnics to meet the increasing demand of the semiprofessionals. Presently, there are 33 polytechnics in Malaysia with the capacity of 110,000 students and this number is estimated to grow to the capacity of 119,000 by 2015. Out of these 32 polytechnics, three have been granted the status of premier polytechnic. Malaysia is proud to have its own premier polytechnics: Ungku Omar Polytechnic (PUO), Sultan Sallahudin Abdul Aziz Shah Polytechnic, Shah Alam (PSA); and Sultan Ibrahim Polytechnic, Johor (PIS). These three premier polytechnics offer the programs of bachelor's degree with honors besides the conventional Diploma. These upgrading and transformation are line with the introduction of Polytechnic Transformation Plan by Department of Polytechnic Education. This initiative was to enable polytechnics to assist the country to achieve its objectives of becoming a developed country in the year 2020. This transformation plan was launched by the Deputy Prime Minister of Malaysia on 25 February 2010. During the launch then Minister of Higher Education stressed that [2,3]

*“...implementation of this transformation will focus on the provision of more opportunities to study in the polytechnic system. Gradual upgrading of all polytechnics will be done to provide world-class courses and diplomas. The transformation plan will also establish a number of polytechnics as premier polytechnics which will focus on the centralization of expertise and knowledge in the areas of expertise or niche in line with the development of the home grown talents. This is expected to*

*raise the standard of knowledge in the development of polytechnic institutions and the country's skills to a higher level. Upgrades are necessary to meet the needs of human capital and technology-based industries".*

Presently, Malaysian Polytechnics are able to accommodate approximately 42,000 places for students in each intake. Each state in Malaysia has at least one polytechnic which offers different types of technical courses. In the state of Pulau Pinang alone there are three polytechnics namely the Seberang Perai Polytechnic (PSP), the Balik Pulau Polytechnic (PBU), and the Tasek Gelugor Metro Polytechnic. In Kedah, there are two polytechnics, namely the Sultan Abdul Halim Polytechnic (POLIMAS) and the Tuanku Sultanah Bahiyah Polytechnic (PTSB). Meanwhile in Perlis, there is the Tuanku Syed Sirajuddin Polytechnic (PTSS). Polytechnics are classified as Public Higher Learning Institutions (IPTA) under the Malaysian Ministry of Education. Further details on Malaysian polytechnics are available at the website [www.politeknik.gov.my](http://www.politeknik.gov.my).

## **2.0 EDUCATION WITH SKILLS IN THE POLYTECHNICS**

Education and skills are two different matters; however, both complements each other in certain areas. In fact there should always be education in skills development. Skilled people who do not uphold positive values would not be able to live their life in perfect harmony. For example very highly skilled mechanics would fail in the business if they constantly could not meet the promised deadline, and vice versa.

Skills are the abilities of a person to apply the knowledge taught to them in a practical or hands-on nature. In the polytechnics, the practical skills are taught in laboratories and workshops which are equipped with a number of latest technology. The practical or hands-on rate is 40%, while the teaching of theories is 60%. With systematic study methods, state of the art facilities, and well trained and competent lecturers, the polytechnics are becoming the best choice for students in pursuing their education.

The polytechnics adopt the semester system for its academic calendar. With low fees and the availability of a wide range of assistance, the polytechnics have become very affordable and attractive technical study centers. To date, Polytechnics have produced more than 300,000 skilled workers to fill job sectors in the country and abroad.

## **3.0 ELIGIBILITY FOR ADMISSION TO POLYTECHNIC**

The polytechnics accept students with Sijil Pelajaran Malaysia (SPM) or 'O' level to pursue their study in various courses offered. To be eligible for the admission to the polytechnics, one has to be a Malaysian, has passed the in Sijil Pelajaran Malaysia (SPM) or equivalent, with a minimum of five (5) credits including Bahasa Malaysia. The advertisement for admission to polytechnics will be published in major local newspapers such as Berita Harian, Utusan Malaysia, The Star and News Straits Times. There are two intakes per year; July and December intakes. Besides the local dailies, students can refer to Department of Polytechnic Education website at [www.politeknik.gov.my](http://www.politeknik.gov.my) for admission information.

## **4.0 STUDYING IN THE POLYTECHNICS**

The governments has established various training institutions and implemented various programs for youth. However, polytechnic has its own special functions. Class or lecture will begin as early as 8.00 am and end at 5.00 pm. The class schedule is flexible in nature depending on the syllabus requirements or what is known as the lesson contents. Each class has the capacity of 25 to 40 students.

There is also a mass lecture method, which combines a number of classes in a series of lectures held in the main lecture hall. Lab sessions or practical classes are usually divided into smaller groups to enable lecturers to pay closer attention to the students during the teaching and learning process. Practical components in the field of mechanical engineering, civil engineering, electrical engineering, and information and communication technology system are usually carried out in workshops and laboratories using the latest technology.

In addition there are also libraries for students to make references, conduct study groups or get information. Besides that Wi-Fi is available throughout all the polytechnics in Malaysia. Almost all the polytechnics provide hostel for their students

although the capacity varies in number. There are also facilities available for sports and recreational activities which help promote healthy living environment and consequently support the emergence of holistically competent students. Nevertheless, many programs are also conducted to unearth talents who could contribute to nation development.

All the polytechnics are also taking initiatives to upgrade their facilities to provide world class learning environment. The Government also plays its role in allocating huge amount of budget to improvise the existing facilities and build new ones as it is the onus of the government to provide the necessary funding to help these institutions to stay relevant and compete with their private counterparts. This effort goes in line with the call by Krogh et al ( 1996) [4], “*construction of new schools or learning definitely helps in upgrading educational facilities and providing better quality of education, but it is equally vital to maintain existing schools or existing to acceptable healthy standards*”.

## 5.0 DRIVING THE NATIONAL DEVELOPMENT

A study by the Ministry of Higher Education in 2011 found that, out of a total of 34,832 graduates from polytechnics in Malaysia, 67.7% were from the technical area, 24.0% were from the arts and social sciences, and 6.3% were from the information & communication technology. The arts and social sciences graduates are those who are pursuing studies in commerce, accounting, banking, business management, and tourism and hospitality disciplines.

Apart from that, high-impact programs such as diploma in aircraft maintenance engineering, diploma in petrochemical engineering, diploma in shipping engineering, diploma in automotive design and manufacturing, diploma in biotechnology, diploma in textile engineering, fashion and clothing design, aqua-culture, and agro-technology are also offered in the polytechnics.

A study on the employability rate among polytechnic graduates is constantly done by the respective polytechnics and also the Department of Polytechnic Education. The findings are promising and most of the polytechnic graduates could find jobs within six months upon graduating.

Interestingly several studies conducted found that 71.2% of Malaysian polytechnic graduates have found employment within six months of completing their studies. From the data, 13.8% of them has successfully pursued higher education and upgraded their skills level. This is indeed a vital achievement indicating that polytechnic graduates are major contributors to skilled talents in Malaysia. The following is the data collected from Seberang Perai Polytechnic which shows the status of the students who have graduated in 2014.

**Figure 1 : Graduated Students' Status 2014**

Status	%
Working	62.0
Continuing Education to higher level	17.0
Up skilling	3.26
Waiting for Posting after Interview	3.5
Unemployed	14.24
<b>Total</b>	<b>100</b>

Source: Tracers Study Unit, Seberang Perai Polytechnic

## 6.0 CONCLUSION

As a leader in the field of technical and vocational education and training (TVET) polytechnics have produced many skilled workers who have filled important posts in the industry. Youth must seize this golden opportunity to become skilled workers since they can earn high income at par with professionals in other sectors. Taking example from the developed countries such as Germany, England, USA, Korea and Japan, skilled workers over there receive high pay. High-impact industries such as oil & gas, aviation, ports, industrial manufacturing, automotive, construction and agriculture are catalysts to a developed country. The role of polytechnics as institutions of higher learning to train skilled workforce is clear and well proven. Thus it is the onus of the youths to take this golden opportunity and enroll in the polytechnics to further contribute to the development of the nation. Humbly, we invite youths to choose polytechnics as their skills learning destination.

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# Positive Psychology and the Learning Organization

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## Abstract

Positive psychology is the latest branch of psychology that was started in 1998. It emphasizes the use of scientific methods in studying positive human development. Seligman and Csikszentmihalyi (2009) define positive psychology as "the scientific study of positive human functioning and flourishing on multiple levels that include the biological, personal, relational, institutional, cultural, and global dimensions of life."

Part of the research agenda, thus far, is to develop evidence based practical interventions to promote 1) positive experiences, 2) enduring psychological traits, 3) positive relationships, and 4) positive institutions (Peterson, 2009).

The research evidence gathered thus far is compelling and suggests that positivism changes the individual's worldview, mental energy, relationships, and potential (Fredrickson, 2009). Furthermore, interventions based on positive psychology have been implemented in the United States Army with significant beneficial effects

This paper discusses 1) the potential implication of positive psychology on developing a learning organization that maximizes and retains the talents within; and 2) the possible interventions that enable individuals to flourish, develop organizational processes, and culture that leads an innovative and productive organization, 3) the possible barriers and preconditions that would maximize the benefits of organizational interventions.

Finally, this paper discusses possible practical research that may be conducted within organizations.

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**Keywords:** Positive Psychology, Learning organization

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## What is Positive Psychology?

Positive psychology as defined by the University of Pennsylvania Positive Psychology Center is "the scientific study of the strengths and virtues that enable individuals and communities to thrive. The field is founded on the belief that people want to lead meaningful and fulfilling lives, to cultivate what is best within themselves, and to enhance their experiences of love, work, and play."

According to Seligman (2011) positive psychology is the science of well-being and the outcome is flourishing. Well-being theory has five elements, namely, 1) positive emotions, 2) engagement, 3) meaning, 4) positive relations, and 5) achievement (PERMA). Positive emotion is one's subjective experience of happiness and life satisfaction. These include the experience of love, joy, gratitude, interest, serenity, hope, pride, amusement, inspiration and awe (Fredrickson, 2010). Engagement refers to being completely absorbed by a task. We experience a state of "flow" where we lose the sense of time and self while being focused only on the present. Positive relationships refer to having good relationship with other people. Meaning refers to belonging to something and serving that something that you believe is bigger than the self. Accomplishment refers to the pursuit of success, achievement, and mastery for their own sake. Huppert & So (2009) define flourishing as a state where the individual has positive emotions, is engaged, has interest, meaning and purpose. In addition, the person must experience 3 of the following: high self-esteem, optimism, is resilient, has vitality, has self-determination, and has positive relationships.

## The Research Findings

Studies show that happiness precedes indicators of thriving, success, and achievement (e.g., Staw, Sutton & Pelley, 1994). Meta-analysis of 200 studies that included nearly 275,000 individuals found that happiness leads to success in diverse domains including marriage, friendship, community involvement, creativity, jobs, careers, and businesses (Lyubomirsky, King, & Diener, 2005). Other studies found that happiness lead to better sales performance, leadership, performance ratings, and higher wages (Achor, 2010). Happier employees enjoy greater job security, are less likely to take sick leave, less likely to quit or become burned out. Furthermore, happier CEOs are more likely to lead happier and healthier employees who perceive their work climate that contributes to high performance (Achor, 2010). Diener et. al, (2002) found that happiness level of first year college students predicted income levels nineteen years after they graduated.

In contrast, Gallup-Healthways Well-Being Index (2008) found that unhappy employees take on an average 15 more sick days per year. Cohen et. al., (2003) found that when they introduced the cold virus to volunteers, those who were happier were less likely to succumb to the viral attack. Happier individuals had less sneezing, coughing, inflammation, and congestion. Thus, positivity protects us from illnesses. The implication is that positive employees are likely to take fewer sick days.

The effects of positive psychology extend beyond resilience to disease. It also affects the way we cope and solve problems. When we are faced with a difficult situation or problem, negative emotions narrow our focus and attention to flight or fight while positive emotions broaden the scope of attention and increase thought-action repertoires (Fredrickson, 2005). Positive emotions broaden the possibilities we process, allowing us to be more thoughtful, creative, and open to new ideas. Thus, when we are generally positive, we build more intellectual, social, and physical resources that we are able to use in the future (Fredrickson, 2010). For instance, Estrada, Isen, & Young (1997) found that doctors who were primed for positive emotions (using a small bag of candy) integrated information better and were more likely to avoid anchoring. As a result, those in the positive mood condition made faster and more accurate diagnosis. Schmitz, DeRosa & Anderson (2009) found that those induced with positive moods processed all the visual images including background information. In contrast, those induced with negative moods did not process all the images and all the background information. Gallagher (2009) reported, eye tracking experiments show that positive emotions expanded peripheral vision.

## Organizational Implications

Work by Cameron, Dutton and Quinn (2003) has suggested that positive psychology has five major impacts on organization behavior. These can be summarized as psychological capital, flow, motivation, well-being, and wisdom. Psychological capital incorporates a number of attitudinal dimensions such as hope, optimism, resiliency and confidence. These dimensions have been shown to relate significantly to key desirable organizational outcomes such as organizational citizenship behaviors, team support and productivity and the behaviors exhibited by the CEO. Specifically CEOs with positive psychological traits were seen as transformational, and this was linked to superior performance by their companies (Peterson, et.al. 2008). Csikszentmihalyi (1997, 1999, and 2003) identified flow as a key component of work satisfaction. Workers are in "flow" when they are fully absorbed in the job, working to their full potential to meet a challenge. Although the motivation dimension of positive psychology has been well researched, what is noteworthy is that beyond a certain level to sustain comfortable existence, money does not act as a motivator for individual workers (Seligman, 2002). At this point, what motivates is the sense of flow and having the opportunity to do something that the worker is really good at. Positive psychologists suggest that training and development should not be focused on improving the individual's weaknesses, but instead on developing his or her strengths, so that he or she can make a unique contribution to the achievement of goals (Buckingham & Coffman, 1999). Gino and Pisano (2011) point out that focusing on strengths rather than weaknesses can have a significant effect on organizational learning, but is difficult to do. We are used to focusing on trying to understand what went wrong, but are not used to trying to work out what went right when something goes really well. They suggest that the systematic reviews of successful projects should be as searching as those for failure, including experimenting to find new levels of achieving high performance. This is consistent with scholars in the field of learning organization (e.g., Garvin, Edmondson, and Gino, 2008). Greenhaus and Powell (2006) noted that the well-being of workers is significantly improved in positive organizational cultures and leads to improved quality of life not only at work but also at home. They move the debate on work-family balance to work family enrichment in which positive experiences at work and at home have a feedback effect in raising happiness in both domains.

Very early in the history of positive psychology Seligman and Csikszentmihalyi (2001) suggested that positive psychology leads to greater wisdom. Here wisdom is defined as being able to cope with life and deal with uncertainty, by

acquiring both factual and procedural knowledge about life. If we see wisdom as the pinnacle of capturing, transferring and sharing organizational learning then we can see the significant impact that positive psychology can have on creating organizations that can create new organizational processes to cope with changing business environments.

### **How Do Companies Cultivate Positive Work Environments?**

Smart software companies such as Google, SAS institute, and online store Zappos create environments that give employees small burst of happiness to prime their creativity and innovation. Southwest Airline and Virgin create a fun environment to work. For instance, SAS Institute creates many cost effective benefits that have great values for employees. For instance, they organize car washes, and laundry services at their premise to create greater convenience for employees. They have child care on premises that is sited next to the canteen so that parents can have lunch with their children. SAS has large sport facilities and have organized events to encourage employees to be physically active and keep healthy. As a result, SAS Institute leads in statistical analysis software including business analytics and has a significant lower employee turnover compared to the industry. This lower turnover, according to Jeffery Peffer at Standford University, in a television interview, is the sustainable competitive advantage that SAS Institute built for itself. It is able to develop talents and well-being and at the same time retain the talents and therefore protect their investment in human capital.

Positive emotions can be induced with small and simple things. For instance, in the Estrada, Isen, and Young (1997) study, positive emotions were primed with a small bag of candy. The study also suggests that small doses of positivity can have large productive effects. In the study, small doses of happiness made the doctors twice as effective, twice as fast, and twice as creative. Keller et.al (2005) found that 20 minutes outdoors per day in good weather increased positive emotions as well as broadened thinking and improved working memory. SAS Institute's encouragement of exercise is consistent with research findings on severe depression. Forty-five minutes of exercise three times weekly was as effective as taking antidepressants. However, those in the antidepressant group had a thirty-eight percent relapse rate while those in the exercise treatment group had only a nine percent relapse rate at ten months (Babyak et. al., 2000). Thus, short periods of exercise improve emotions and have a long lasting effect moods and mental wellbeing.

Van Boven and Gilovich (2003) found that positive emotions we got from things were fleeting while positive feelings experienced with other people were more meaningful and last longer. Dunn, Aknin, & Norton (2008) found that individuals who spent money on others were happier than those who spent money on themselves. Consequently, Achor (2010) suggests that organizations invest in creating opportunities for prosocial experiences.

When individuals use their strength of character or "signature strength" daily, they become happier and less depressed. In addition, the levels of happiness remain elevated when measured six months later (Seligman et. al., 2005). Furthermore, studies have shown that the more you use your signature strengths in everyday life, the happier you become (Achor, 2010). The implication for organizations and their leaders is to have policies that allow employees to exercise their signature strengths daily.

Daniel Goleman (2006) argues that mirror neurons in the brain are responsible for empathy (Gallese, 2001; Preston & de Waal, 2002), and that it is reasonable to expect emotions that we observe flow through us. He argues that this neurological process is the basis of social skills. Thus, if this hypothesis is true, positive or negative emotions of an individual or a group of individuals have the potential to spread across all those they contact.

Based on the research by Greenberg & Arakawa (2007), Achor (2010) argues that leaders and people in position of authority have a great impact on the emotions of employees because they determine policy, shape the workplace culture, are the role models, and interact with more people over the course of the day. However, it is counter intuitive to their thoughts and actions that happiness leads to productivity. Instead, most managers are task oriented without adequate thought to the emotional side of the equation. He argues that this task orientation may actually be misguided and counterproductive. Instead organizations should consider sponsorship of activities that induce positive emotions such as time off for exercise, mediation, and volunteer work. The positive and productive environment is one where employees experience many incidents of positive emotions. He suggests that the return on investment may be significant. For instance, Coors Brewing Company reported a \$6.16 return in profitability for every \$1 spent on its corporate fitness program. Toyota increased productivity at one of its US parts center when it instituted training in using each individual's signature strength (Connelly, 2002).

## Leadership with Positive Psychology

*Encourage employees to use their signature strengths.* Leaders and organizational policies should encourage employees to use their signature strengths more frequently and to find new ways to use their signature strengths. This exercise allows employees to feel authentic and identify with their actions. It gives them a sense of excitement to use their strength. New behaviors using signature strengths have a more rapid learning curve and greater chance of success (Seligman, 2011). This results in the feeling of accomplishment. It is intrinsically motivating to use one's own strength, with a strong sense of self-efficacy. For instance, Google has a 70-20-10 policy on work. According to Google's CEO Eric Schmidt, "70 percent of their resources are channeled to the core business of internet search and advertising, and 20 percent is channeled to adjacent products such as desktop and product search services. The remaining 10 percent is focused on highly experimental products - innovations important for the long term" (Because we think, 2007). Laszlo Bock, Senior Vice President of Google's People Operations, tells Forbes (2013): "We try to have as many channels for expression as we can, recognizing that different people, and different ideas, will percolate up in different ways." Google allocates time and resources so that individuals can make use of their strengths to create innovative products and services for the company.

*Encourage people to talk about positive events often.* Gable et. al. (2004). Found that when individuals communicate, they experience positive events; it increases his or her positive emotions and well-being. In addition, when the listener responds "actively and constructively", it further increases both the positive emotions and well-being. These benefits do not just rest at the individual level; "active constructive responding" builds more positive inter-personal relationships. So what is "active constructive responding"? Active, constructive responding is listening and showing interest and enthusiasm for the positive event. Organizations should encourage everyone to spend some time daily, celebrate positive events by encouraging individual to talk about their successes. Listeners should be curious, sincere, and ask detailed questions about the positive event. This allows the teller to re-live that positive event. From a practical perspective, some companies use appreciative inquiry (Cooperrider, Whitney, & Stavros (2007) in their everyday review. For instance, service staff and sale people could at the beginning of each day share best practices of successful resolution of a challenge they experienced during the previous day. During the review, listeners ask questions to bring out the details of how the person handled the situation. Besides the positive emotions, well-being, and relationship benefits, this process also encourages the sharing of best practices. It is a process that identifies what went well, how it is done, and then disseminates the practice throughout the team. Furthermore, knowing that peers have done it and that peers will help you gain mastery encourages the application of new knowledge. Such a process need not consume a lot of time; for instance, teams can get together during breaks to discuss best practices and to talk about what they will try and how the team might help them master their challenges.

*Encourage employees to identify three things that went well daily.* Seligman (2011) suggests that depression is about ten times more common than fifty years ago and that this is not an artifact of greater awareness of depression. Furthermore, the average age of first onset has declined from about thirty to below fifteen. The paradox is that this is happening despite the fact that the standard of living has improved over the fifty years. With more incidents of depression occurring, Seligman suggests that there is a real need to intervene in order to enhance well-being and learning, because positive moods produce broader attention, more thinking, and more holistic thinking. Bad moods at best narrow thinking and induce pessimism. Bad moods at worst induce defensiveness, rote following of order, and repeating strategies that are known not to work (Seligman, 2011; Staw, Sundelands, & Dutton, 1981). This is clearly a set of behaviors that is not a hallmark of a learning organization.

One of the most effective counters to depression is, what is often called, the "three blessings" exercise. The protocol of this intervention was to spend ten minutes a day to write three things that went well, and why they went well (Answers the question: "Why did it happen?"). The three things need only be small things. In the study by Seligman and his colleagues (2005), the elevation of happiness and reduction of depression was similar to the signature strengths exercise. The beneficial effects were present after six months, and this was because the subject continued the exercises, even when they were not required to. In other words, this exercise has good likelihood that it will become a life-practice when we institute the intervention.

*Create ripples of positive emotions and best practices.* Barsade (2002) found that positive emotions influenced the moods of team-mates – positive emotions led others to feel positive and vice versa. In addition, "contagion positive emotions" (emotions derived from the emotion of others) reduced the other person's likelihood to engage in conflict, while increasing task performance, and cooperativeness. Clearly, it is useful for leaders not only to encourage positive emotions, but also to find ways of increasing the ripple effects. For instance, Chip Conley, the CEO of a chain of boutique hotels

would, at the end of each meeting, have a person talk for one minute about someone who deserves recognition. This person to be recognized could be any one employee in the company. After which, a different executive would volunteer to visit or email to tell the person how great a job he or she is doing (Conley, 2007). One Danish company created “The Order of the Elephant” where employees can recognize fellow employees for doing something exemplary (Kjerulf, 2014). This award is simply a sixty-centimeter stuff toy elephant. What do these interventions do? Firstly, it creates positive emotions in the receiver of the award, but at the same time it also creates positive emotions in the recommender and the giver of the award. Secondly, it creates a contagion of emotions when other employees see these as very personal as opposed to official ceremonious events. Thirdly, other employees may, upon seeing the conspicuous stuffed toy, enquire about what the person did to get the elephant. This gives the opportunity for employees to share their best practices, as well as to re-live positive events. Thus, best practices as well as positivity spreads like a ripple across the workplace.

One of the barriers is that conventional management wisdom uses rewards for high performance. In contrast, research in positive psychology suggest that small frequent positive boost drives high performance. This is a small but significant mindset change that leaders must embrace. They must think in terms of using small token, positive interactions, and the re-living of positive events, not as rewards, but as means for driving performance.

*Encourage employees, especially leaders, to communicate positively.* Today, much of the communications occur on email, even to colleagues that are sitting a few meters away. We argue that organizations should encourage face-to-face communications or at least voice conversations. Emails do not have the contextual cues of tone, pitch, and facial expressions, thus they are notorious for miscommunications. Furthermore, using emails forgoes the opportunity to create positive emotions between colleagues that leads to less conflict and greater cooperation and task performance (Barsade, 2002). To avoid the contagion of negative emotions, the culture should encourage warm and enthusiastic verbal behaviors including optimistic frames and positive facial expressions, and cordial tone and pitch. Achor (2010) suggests that if we want to have a better team performance, we should be encouraged to be more self-aware of how we communicate and to put in “genuine effort to avoid slipping into an apathetic or irritable tone.” Even in a military, where conventional wisdom suggests that leaders have to be authoritarian to succeed, Bachman (1988), found that naval units who won awards for efficiency and effectiveness had commanders who were openly encouraging. In contrast, units that were rated poorly had commanders who were negative, controlling, and aloof.

*Create a positive culture of PERMA.* One exemplary case is that of Captain Micheal Abrashoff who turned around the USS Benfold from the worst ship in the navy to one of the best by focusing on a dialogue that emphasized listening, seeing things from the perspective of the followers, encouraged and implemented ideas that changed the navy’s standard operating procedures. He found ways to help his followers fulfill their ambitions and aspirations. For instance, to cater for their aspiration to go to college, he found ways to eliminate work, conducted lessons, and arranged for college entrance standardized tests to be conducted on board USS Benfold. He told the followers that he was not their boss, but the mission was their boss. What did all these do in terms of positive psychology? It created more positive emotions, greater engagement, greater meaning in their work and life, respectful positive relationships, and finally, he gave them a sense that achievement is possible.

*Focus on improving self-efficacy instead of just improving competence.* Self-efficacy (Bandura, 1977) is a person’s belief in his or her own ability to complete a task. It is a very important variable that predicts task and learning performances. In every research study on performance or learning, self-efficacy is measured and controlled for. However, in organizations we often focus on building competence while ignoring this very important predictor. Basically, when a person feels confident in their ability to do the job, they are more committed to doing it well. We have all seen situations where we know the person is competent and yet is not confident and consequently underperforms. Leaders, through positivity, can create an environment that fosters a “can do” optimistic attitude. One of the keys is the belief that people hold of themselves. When people believe their ability is fixed or unchangeable, they stop trying. If they believe that they can learn and grow, they keep trying. Positivity helps build the optimism that we can grow while negativity does the opposite.

*Increase the positive to negative emotional ratio.* What is the ratio of positive to negative experiences? What does it take to start to flourish? This was previously thought to be three, but as of today the ratio is yet to be established beyond doubt. Nonetheless, Barbara Fredrickson says that a high ratio of positivity to negativity is required to flourish. Thus, leaders should bear this in mind. Firstly, monitor whether they themselves create communications and events that increase

the ratio. Try to monitor this ratio as experienced by their followers. The monitoring device could be as simple as having periodic short coaching conversations about the follower's subjective estimates of their positivity to negativity.

When we improve positivity, it automatically reduces negativity. Thus, positivity has a double-effect; it increases the numerator, while at the same time reducing the denominator. We can increase the ratio further by reducing negativity. One of the common errors in thinking that creates much negativity is "the sky is falling" thinking or catastrophic thinking. Catastrophic thinking is repeatedly pondering about worst-case outcomes, especially when something goes wrong. However, the worst-case scenario usually has a low probability of occurring, yet often in our minds, we assign it with a very high probability. This is a conservative and biased estimate of reality. Leaders can help dispute such a biased view of the situation. For instance, ask them to estimate the likelihood of various scenarios unfolding. This helps them make more realistic estimates of the situation. Leaders can keep calm and be the anchor in a storm.

Another common source of negativity is regret. We can be consumed by regrets to such an extent that we remain paralyzed. When leaders chide followers for mistakes, they increase the negativities of regret, fear, unfairness or even anger. Instead leaders can encourage followers to focus on the present and find solutions to ratify the situation. This is a much more positive and functional response than to dwell on the past that cannot be changed, or fear the worst, which merely delays action. What is most effective is to focus on effectively dealing with the situation at the present. Only by managing the present can the outcomes of the future change.

Blaming, chiding, poking fun, criticism, sarcasm, and other hurtful speeches and behaviors introduce unnecessary negativity. These should be discouraged in favor of speaking in a constructive and respectful tone of voice. It is natural for us to blame the person when a bad event arises. This is again caused by a bias called fundamental attribution error. Observers of the event believe that people caused it, but the actors in that event see the cause as an uncontrollable situation. Yes, in part it is a defensive response, but there is more to it. Actors, given their state of knowledge, skill, and state of mind often try their best given the situation; therefore, they reason that it cannot be their fault. Meanwhile, onlookers just see the result but not the effort, and the limitations at hand. Therefore, their conclusions are based on partial information. Furthermore, from human perception point of view, humans are more prominent than the background situation, so observers are more ready to assign blame to them. There are also two more beliefs that drive observers to blame actors. The first is the belief that humans are in control, and thus they reason that bad events can be controlled and if they cannot, it must be the fault of some human being. The second belief is that the world is just: good things happen to good people, and bad things happen to bad people. Thus, when bad event occurs, the person in charge must be bad. If we succumb to our human biases, we cause a feeling of injustice and thus introduce unnecessary and strong negative emotions. Leaders can be aware of these biases, and in turn remind others to be aware of these biases, while at the same time encourage everyone to constructively focus on the present to ratify the situation, and also find ways to prevent it from happening again. This approach would bring the organization closer to a learning organization.

*Focus on finding opportunities in every situation especially in adversity.* Our human psychology allows us to find what we are looking for and misses what we are not looking for (Simon & Chabris, 1999). In their famous experiment, participants were asked to watch a video and to count how many times a basketball was passed in a crowd. Unknown to the participants, in the midst of the video was a man dressed in a gorilla suit walking across the crowd making funny faces. When asked after the video, if they saw the gorilla, approximately half of the participants did not recall seeing the gorilla.

Selective attention, of course, allows us to focus and disregard distractions. However, in organizations we often focus on mistakes instead of opportunities. In an economy of optimization, this is indeed an appropriate strategy. However, in today's business environment where accelerated change is the norm, the viability of a business may depend on finding innovative opportunities. So, leaders should probably refocus employees' selective attention. Instead of priming them to look for mistakes, start to prime them more often to look for opportunities.

Positivity may also improve opportunity recognition. Wiseman (2003), asked the question: why some people seem luckier while others seem unlucky. Wiseman asked volunteers to read through a newspaper and count how many photographs were in there. Those who thought themselves lucky were more likely to complete the task in seconds, because in the second page was a very large message that read: "Stop counting, there are 43 photos." Those who were unlucky were more likely miss the message, possibly their pessimism resulted in missing opportunities. This is possibly the result of the self-fulfilling prophecy phenomenon.

It appears that our brain, like our body, changes according to what we demand it to do. This is called neuroplasticity. Thus, the more you practice looking for opportunities, the more likely your brain will change to fulfill that demand. Moreover, techniques that induce positivity such as the "three-blessing exercise" not only increase positive

emotions but it also increases optimism. Having an organization where members feel optimistic makes us open to new ideas and opportunities. During adversity, the optimism manifests as resilience, and as creative problem solving.

## **Positive Psychology as a Precursor to Developing a Learning Organization**

### **Characteristics of a Learning Organization**

Peter Senge created the concept of the Learning Organization (L.O.) in 1990. He argues that if organizations were to keep ahead of the competition, they have to change and adapt to a changing business environment. It was thus necessary to create a culture in which (it) the organization evolved by identifying and testing new ways of changing to deal with the uncertain business environment. There were five key dimensions that define whether an organization could be considered an L.O. or not. The extent to which an organization demonstrates these key dimensions determines whether it has truly embraced the philosophy of an L.O., so they can be seen to define the “ideal” L.O.

The five dimensions include personal mastery by employees through staff training and development, and continuous self-development. Personal mastery is the desire by employees to develop themselves to the peak of achievement in their particular discipline. It is important that the motivation for this development comes from the individual, and that this becomes en-cultured so that learning is part and parcel of everyday life,

Mental models are the assumptions held by individuals and are en-cultured into the organization’s norms and values. In order to become a learning organization these models must be challenged and changed. To do so the L.O. must create a climate that promotes inquiry and trust. Employees must feel comfortable questioning even senior executives about what is going on, and suggesting alternative ideas. This is a change towards a more open culture in which old dysfunctional ideas can be challenged. This is the learning environment that will encourage continuous changes and developments as the organization progresses.

Shared vision is important in motivating the staff to learn, as it creates a common sense of purpose and gives a focus for learning. This shared vision should incorporate the individual visions at all levels of the organization. The shared vision is a way of aligning the activities of employees to keep ahead of the competition. Furthermore, the vision should be long-term inclusive goals, that is, the vision and goals should also include the long term interest of all stakeholders and not just the shareholders. This allows stakeholders to identify with the organization. Thus, L.O.s are able to have decentralized and flat hierarchical structures, because employees and stakeholders work together for mutual benefit.

In contrast, in traditional organizations with hierarchical structures, the vision is something that is imposed by a higher management, unless there is a great deal of efforts convincing members; the vision is often not shared by a significant portion its members. As a result, a catch-22 situation arises: the vision is not shared and members are not aligned, resulting in a need to enforce control, which results in dependency on superiors to make decisions, which in turn limits the ability to respond appropriately to a changing and uncertain environment.

Team learning is the result of the individual learning, but goes further. Team learning suggests that when individuals successfully resolve issues, that knowledge is quickly shared across relevant parts of the organization, and once shared, the receiving team or individual quickly implements the solution. A culture that is created in team learning allows staff to learn more quickly and improves the problem solving capacity of the whole organization. Learning organizations have systems and cultures that enable more efficient learning, such as debates and discussions, which help members and which creates open discussion and the creation of shared meaning.

*System thinking.* Central to the idea of Learning Organizations (the Fifth Discipline) are the ideas from system thinking. System thinking concentrates on looking at organizations as a system of related parts and understanding the relations between the parts. Learning organizations look at the totality of the organization and make sure that the various parts are integrated to form a meaningful whole. The notion of system thinking often runs counter to conventional management wisdom of setting invariable key performance indicators (KPI) for sub-units. System thinking suggests that employees must be able to act beyond the set KPI, and bring about actions that may sacrifice sub-unit goals for the achievement of the system performance.

Systems thinking suggests that all of the above characteristics must be present if the organization is truly to be called a learning organization. The process by which an organization transforms itself into a learning organization might show that these characteristics are slowly acquired, rather than a complete and immediate transformation into an L.O. (O Keefe, 2002)

## **Transiting to a Learning Organization**

Changing a traditional organization into an L.O. is not easy. In fact, Kerka (1995) has suggested that despite all of the efforts to build L.O.s over the past few years there are very few examples of organizations that fully demonstrate all of the characteristics of an L.O. Some of the reasons for this apparent lack of success derive from the nature of the L.O. concept itself. Many organizations are cautious about the personal mastery element, thinking that it might lead to fragmentation by allowing individual employees to set their own objectives without aligning to corporate goals. However, Senge (1990) does highlight the importance of the shared vision, which should be the aligning process. One precursor to the whole process of developing an L.O. is the creation of a learning culture; if this is not achieved then progress can be stymied. Resistance to the whole process can be exacerbated by the normal fears that employees have about losing out as a result of the change. A similar resistance might develop because employees are reluctant to expose and review their current mental models in order to change. There is also the problem that the whole process might be resisted by managers who share a traditional mindset about their roles and what they consider to be appropriate reporting relationships in the business. A further problem is that knowledge sharing in large organizations is more difficult than in smaller organizations, so the information and shared learning does not get to the people who need it most.

Senge (1966) recognized some of these challenges. For example, organizations might not have enough time to make these transitions. Kotter (1996) pointed out that changes in organizations culture can take up to eight years to be achieved. Senior managers are impatient to see the benefits of the L.O. culture but do not invest sufficient time into managing the change process. A further problem is that the change to an L.O. culture does not address the immediate problems that an organization is facing, so that in terms of its impact its relevance might be questioned

Perhaps one key criticism of Senge's work is that he does not outline a clear change process to bring about the transition to an L.O. It is as if he identifies a clear end point or goals for an L.O., but not a clear path on how to get there. It is true that Senge and colleagues (1994) have identified a number of positive examples of organizations that have developed particular disciplines of an L.O. in a field book of L.O. practice. But the examples presented show ways in which organizations have improved on individual disciplines, not making a transition to reflect the values of a complete L.O. The changes proposed, the exercises, the strategies and tactics of developing each discipline, present a very rational approach to the problem of bringing the change about. But this might indicate a weakness. The approach is a very rational one, but ignores the affective dimension of change. Kotter and Cohen (2002) have shown that in order to get the engagement and commitment of employees to the change, the change agent has to address the feelings of those involved. Perhaps if Senge was to consider more about managing the dynamics of the change process to get a greater engagement of those involved, we might have more examples of organizations that have fully transited to embrace all of the disciplines of an L.O.

## **Positive Psychology as a Pre-cursor**

So how might Positive Psychology assist in the process of creating an L.O.? Well in developing the "psychological capital" of the employees, positive psychology creates a culture in which a change becomes feasible. In a sense it creates the essential precursor to the kinds of change that L.O. is trying to bring about. It builds employees sense of optimism, confidence and hope about the organization and their role in it. In simple terms it raises the self- efficacy of the workers, their feelings that change is possible and that they are ready for it (Bandura, 1977). This essential groundwork seems to be missing from Senge's consideration of how the change can be brought about. It also touches on resiliency, which is the ability to bounce back from problems or hardship. The introduction of change will lead to disruptions to people's lives, resilience is the capability to cope with those disruptions without being disabled by them. "Flow" is clearly related to personal mastery in the L.O. framework, and again is about the employee concentrating on what they do really well so that they feel increasingly confident and capable in the work they do. Now this concentration on "being the best you can" does not overcome the problem of employees pursuing their own interest at the expense of the organization. But the development of "wisdom" with an emphasis on developing an awareness of what needs to be done, and the capability to do that might mean that employees self – align to the needs of other employees and the organization as a whole. "Wisdom" also probably creates an early awareness of the need for system thinking, so that the employees can understand the need to see the organization as a whole and not just an assembly of parts. Team learning is not specifically addressed in positive psychology, but many of the findings on the development of psychological capital show that there is increased organizational citizenship behavior and team support, not an exact parallel but close enough to see that employees treated in a positive way are likely to become better team players. One other aspect of positive psychology that could be influential is

the emphasis on the “wellness” of employees, put simply “happiness”. This also contributes to the morale of the employees about to undertake a major change.

Where does this leave us? Our contention is that Senge and other writes on L.O. have identified an ideal set characteristics of an L.O., but the achievement of these characteristics is far from straightforward. We argue that if you are looking at the conditions that you need to create in order to implement the changes required in transiting to an L.O., then positive psychology has much to commend. By starting your change with a change to a more positive culture you will have increased the morale and sense of self-efficacy and empowerment amongst employees, they will have an embracing wisdom about the needs and direction of the organization, and they will show better organizational commitment, citizenship, and team working. Once these changes in the culture have been achieved to switch to an L.O, culture should become much easier, and with fewer problems than heretofore. Of course this means that there is another layer of change that has to be implemented before the ideals of the L.O that can be achieved, but we might look at these as setting the foundations for building this desired culture.

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## Riding Pattern Analysis of Taxi Passengers (A Case Study of a Korean Taxi Company)

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### Abstract

In an urban area, including Seoul city, many people prefer to use taxi as one of the choices for fast, convenient and flexible transportation. Based on the data provided by one of the taxi service call companies, X, in Korea, this paper proposes a taxi passenger riding pattern analysis at Seoul city, Republic of Korea. Using a multidimensional analysis method, we analyze the data to obtain an area with high potential demands of taxi passengers, which we call "hotspot" area. The results show that "Teheran Valley" in Gangnam-gu and Dongdaemun market in Jung-gu and Jongno-gu had the biggest number of passengers compared to other areas. This information will be useful for the company to re-evaluate its current taxi fleet management, especially for the taxi's drivers in minimizing their idle time when searching for customers.

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**Keywords:** GPS coordinates, multidimensional analysis, riding pattern analysis, hotspot area

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### 1. Introduction

In daily life, many people prefer to use taxi as one choice of fast, convenient and flexible transportation. In an urban area like Seoul city, taxi also becomes the favorite choice for traveling. With the technology development and modernization, nowadays almost every taxi is equipped with a Global Positioning System (GPS) which can be used in the taxi's operating system, especially to manage the navigation problem. Using this technology the correct location can be acquired in time especially for novice taxi drivers with no previous experience. Significant locations and predicted movements across multiple users using GPS hardware were investigated to collect the location dataset which automatically clusters GPS data into meaningful locations at multiple scales [1]. Even though equipped with the GPS system, there are other problems faced by taxi drivers. Typically, the taxi drivers search for their customers based on their intuition and experience only, go to a crowded area where customers may be available besides relying on taxi calling service, which means they come to a specific place ordered by a customer via telephone call. As a result, sometimes they still have ineffective time with absence of passengers for a long time and just waste their time and energy to search the passenger.

As reported in a Taipei urban area, about 60-73 % of their operation hours, taxi drivers were driving without passengers [2]. Also, at Jeju Island, Korea, many taxi drivers reported that about 80 % of their activity was carrying no passengers [3].

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To minimize the problem above, the main objective of this research is analyzing the taxi passenger riding behavior, especially in Seoul City, in order to obtain valuable information from the huge number of taxi databases. Using the multidimensional analysis method, the variables time, location, and frequency will be analyzed. The proper information of taxi passenger riding behavior is one of the important aspects in a taxi business area because, according to the Seoul Statistical Year Book, around 6.5 % people in Seoul use taxi as their transportation mode [4].

## 2. Data and methodology

### 2.1. Data and research framework

Data for this research were provided by one of the taxi companies in Korea, which is defined later as Company X. The 400.000 raw data used for the analysis are those of a 24-hour taxi service.

Table.1. the Example Data

Y/M/D	Taxi ID	Get ON time	Get OFF time	GPS longitude (GET ON)	GPS latitude (GET ON)	GPS longitude (GET OFF)	GPS latitude (GET OFF)
20101003	1035922307	10:59:09	11:45:30	127.056959	37.591416	127.09276	37.613859
20101004	1037912431	22:58:00	23:15:09	127.050851	37.504816	126.974691	37.519674
20101006	1047802409	13:35:31	14:01:39	127.07382	37.546922	126.900754	37.530143

The example of processed data is shown in Table 1. The data consist of date (year, month, and day), taxi ID, time (get on and get off time), and GPS coordinates (get on and get off latitude and longitude coordinates). In this paper we use term of “Get on” and “Get off” as a pick-up and drop-off of taxi passengers respectively.

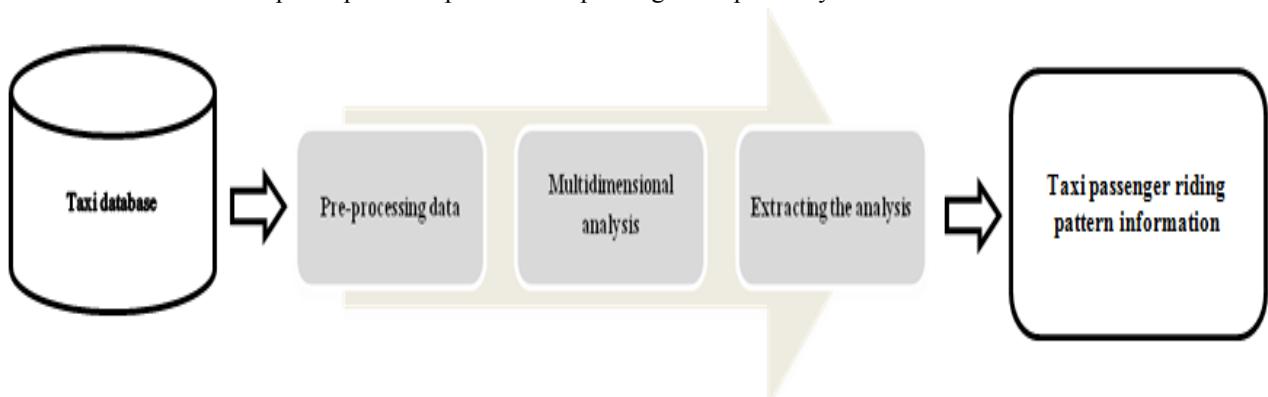


Fig. 1. General Research Framework

As is depicted in Fig.1, raw data from the taxi company database will be processed using multidimensional analysis to find the information about the passenger riding pattern. Pre-processing data is needed in order to prepare the raw data from the company into proper data for further analysis. The raw data from the company cannot be directly used for this analysis because it used ORACLE format databases which different from our analysis platform. Using an additional calculation formula, data can be read and transformed into our data analysis platform.

This research is limited only in the Seoul city area. According to the geographic condition and administration, Seoul area comprises around 605.25 km<sup>2</sup>, with a radius of approximately 15 km from the north to the south, roughly halves by the Han River; it consists of 25 districts (-gu) and 522 sub-districts (-dong).

In this research, we used four (4) time span allocations to identify the distribution of taxi passengers by dividing the 24 hours into 4 time spans:

- (1) Morning time (07.00-10.00 am)
- (2) Afternoon time (10.00 am-18.00 pm )
- (3) Night time (18.00-24.00 pm)
- (4) Late night/early morning (00.00-07.00 am).

## 2.2. Pre-processing data

The most important thing for pre-processing the data in this research is converting the GPS coordinates data into a location or address. GPS coordinates consist of Latitude and Longitude coordinates. Latitude is the angular distance of the North or South locations of the Equator and usually denoted by the Greek letter phi ( $\phi$ ). Longitude is the angular distance of a point's meridian from the Prime (Greenwich) Meridian and denoted by lambda ( $\lambda$ ). The latitude and longitude in general are used for a geographic coordinate system to specify any location on the globe<sup>1</sup>.

In this research, The Delphi Geo-code software is used to convert the GPS latitude and longitude coordinates into the location. This software program is connected with a Google location database which automatically searches the location. In this case the result of the location is in Korean character (Hangeul) This software can search the address in details, including the district and the sub district area (-gu) and (-dong), for example : 대한민국 서울특별시 강남구 대치 4동 89). The results of Delphi Geo-code software are in a Shape file (.shp, .shx and .dbf) format, and using the DBF Viewer Plus software, the Shape file is converted into a more general format for the analysis.

## 2.3. Multidimensional Analysis

A multidimensional analysis is a data analysis process that groups data into two or more categories of data dimension and measurement. After the process of analyzing the data, the result of this research will help the company to optimize and increase their taxi driver working performance, for example: to re-evaluate their current taxi fleet management. The better the understanding of the passenger behavior, the higher the company's profit earned.

In this research the variables used for the multidimensional analysis method are time, location, and frequency, as shown in Figure 2. By this analysis, we will get the detailed information about not only where, when, and how many taxis passengers are distributed but also how long they ride the taxi.

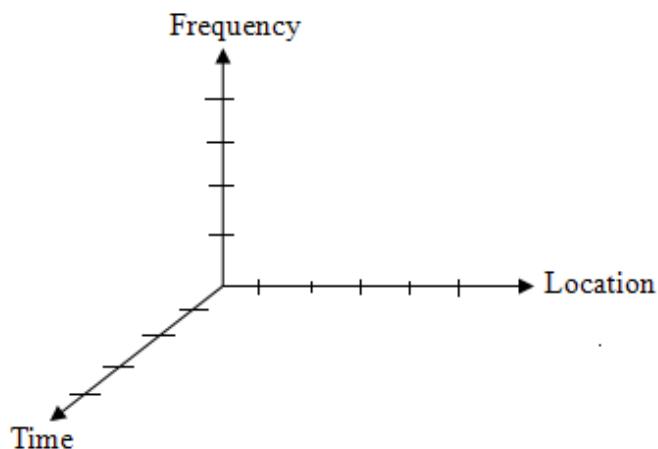


Fig.2. Three variables for experiment

Using the SAS Enterprise Guide 4.3 as the analysis tool, the variable location, frequency and time data can be separated and grouped. From the multidimensional analysis we can obtain some information that will be useful for the company to optimize their fleet management and increase the company profit, for example: distribution of taxi passenger, passenger riding behavior and other information.

### 3. Experiment Results

#### 3.1. General taxi passengers distribution

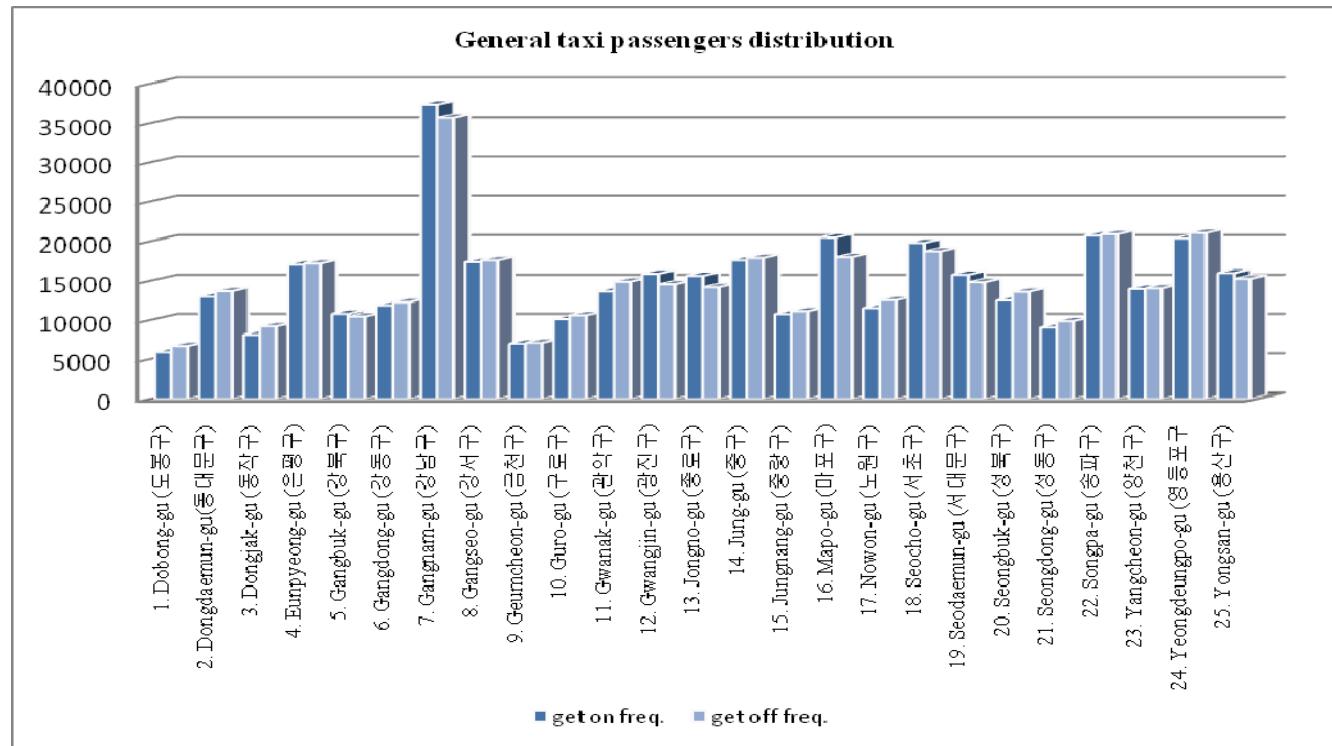


Fig. 3. General taxi passengers distribution

In As shown in Figure 3, out of 400.000 raw data, 93 % of the passengers (37.2357 passengers) ride taxi from Seoul city area, especially in Gangnam-gu, which has the highest frequency of passengers, compared to other districts. The remaining 7 % get on at outside of Seoul city or in the nearby city, for example: Incheon City or Gyonggi province.

It is noted that the analysis focuses on the get on distribution of passengers only. The get on passenger information give the information to determine the target area (*hotspot*) where many passengers probably need the taxi service.

#### 3.2. Inside, adjacent and remains area analysis

The “*adjacent*” district is defined as the district bordering or nearby the main district analyzed. By using this adjacent district analysis, we obtained the information about the taxi passenger riding behavior across other district areas.

Figure 4 shows the example of the adjacent area. From this figure, it is shown that Jung-gu (fixed line) has 6 adjacent areas. The adjacent areas (dotted) are: Jongno-gu, Dongdaemun-gu, Seongdong-gu, Yongsan-gu, Mapo-gu and Seodamun-gu. The areas not included in the adjacent districts will be called the ‘remains’ area.



Fig. 4. The illustrations of inside and adjacent areas in Seoul City

Table 2. Jung-gu taxi passenger riding behavior

14. Jung-gu (종구)	Percentages (%)		
	Inside	Adjacent	Remains
07.00-10.00 (Morning)	38.82	33.79	27.39
10.00-18.00 (Afternoon)	33.39	41.78	24.83
18.00-24.00 (Night)	21.27	37.40	41.33
24.00 -07.00 (Late night/early morning)	16.87	31.83	51.31

Table 2 gives the example of the analysis result in Jung-gu area. As shown in this table, the taxi passengers prefer to ride the taxi inside their district area in the morning. Meanwhile in the afternoon, the passengers prefer to ride the taxi across their district (outside area). In the night and late night/early morning the remains area have the higher percentages.

Table .3. Seoul taxi passenger riding behavior

Seoul city	Total average percentages from 25 district (%)		
	Inside	Adjacent	Remains
07.00-10.00 (Morning)	43.37	36.11	20.52
10.00-18.00 (Afternoon)	47.40	35.64	16.97
18.00-24.00 (Night)	35.98	32.78	33.21
24.00 -07.00 (Late night/early morning)	31.53	33.16	36.06

The analysis results of passenger riding behavior from 25 districts in Seoul city are tabulated in Table 3. As shown in this table, we can see that in the morning time (07.00-10.00) most of the passengers prefer to ride the taxi inside their district (43.37 %); in the afternoon time the result analysis is similar with that in the morning; most of the taxi passengers prefer to ride from their district (47.40 %). Also in the night time; the result of the analysis is similar with that of the morning and afternoon time when most passengers prefer to ride taxi inside their district (35.98 %). The different results of analysis show in the late night/early morning time, the remains area have higher percentages than in the inside and adjacent areas, in which the taxi passengers prefer to ride the taxi (36.06 %).

From the tables above, we have obtained the information that most of the passengers ride taxi for a short distance, inside their district but rarely use taxi for the long distance, except at the late night/early morning. In general, the passengers will use the taxi in a long distance when they need are under an urgent condition or another situation when the service of public transportation such as bus or subway is not available anymore.

### 3.3. Taxi riding time analysis

Riding time is one of the important aspects of taxi passenger analysis behavior. Based on the get on and get off time data, the riding time can be obtained by alleviating the get off time by get on time. Basically, this result gives the information about “*how long the time*” spent by passengers in the taxi.

The riding time analysis result shows that most of the passengers ride taxi in a short time, between 5-10 minutes (30 %) followed by 15-30 minutes (22%) and 1-5 minutes (20 %). Figure 5 shows the analysis result.

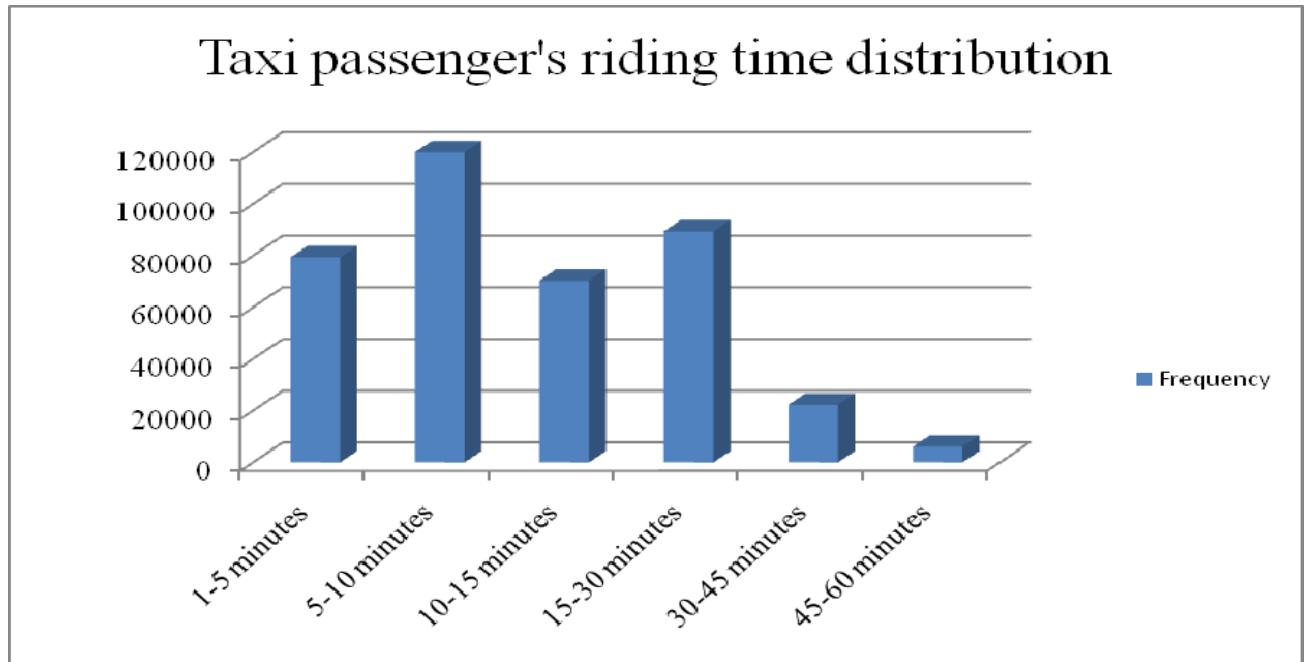


Fig. 5.Taxi passengers riding time distribution

It proves that the previous analysis result which concluded that most of the passengers used taxi inside their districts. The short riding time means the short riding distance.

### 3.4. The “hotspot” area analysis

From the whole analysis, finally we found which area has a potential demand for the taxi passengers or we call it “*hotspot*” area, an area that had higher numbers of passengers compared to the others. The first is Teheran Street in Gangnam-gu and the second is Dongdaemun Market in Jung-gu & Jongno-gu. Figure 6 shows the visualization of Teheran street or known as “*Teheran Valley*” using Google Earth software application.

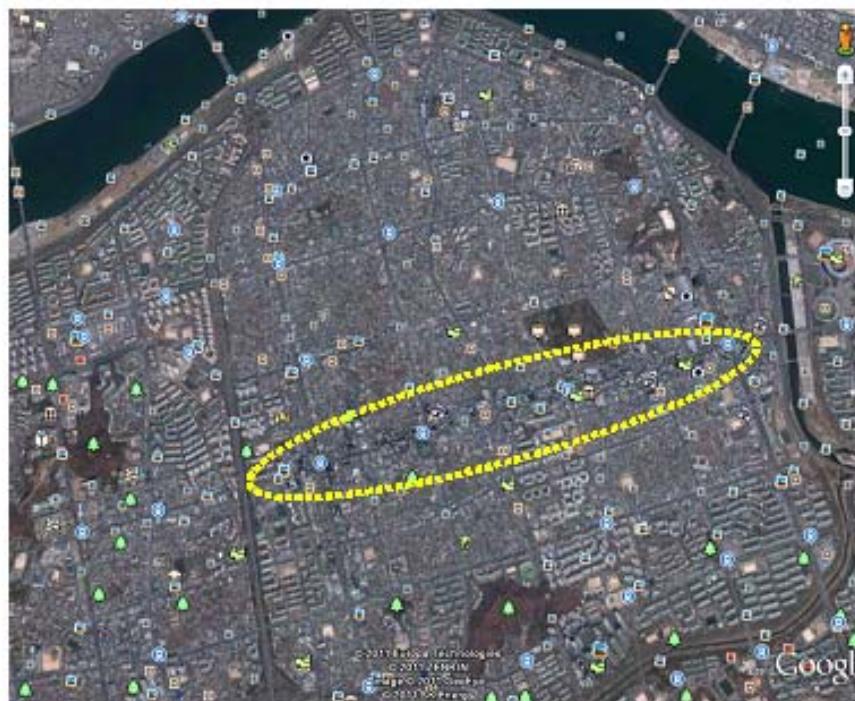


Fig.6. View of “Teheran Valley”via Google Earth

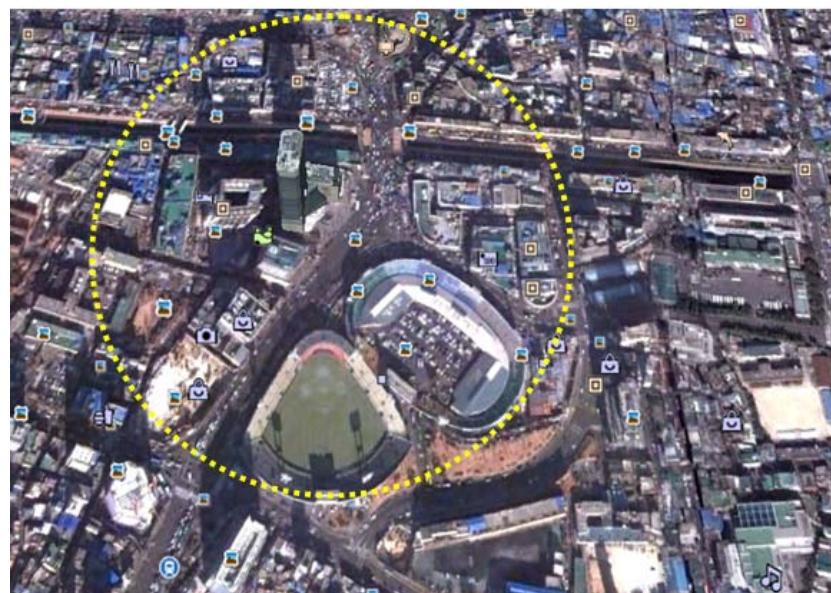


Fig.7. View of Dongdaemun market via Google Earth

Figure 7 shows the visualization of Dongdaemun market area using Google Earth software application. It is noted that 35 % of the taxi passenger distribution in Gangnam-gu was found in “Teheran valley” and 25 % of taxi passenger distribution in Jung-gu & Jong-no-gu was that of the passengers in Dongdaemun market.

#### 4. Conclusion

Basically this paper analyzes the distribution of taxi passengers in Seoul city. Using the multidimensional analysis, the raw data can be transformed into valuable information. The variables used in this analysis are location, time, and frequency. Before analyzing the data, the raw data from one of Korean taxi companies which contains of GPS longitude and latitude coordinates are transformed into real locations/addresses. Using the Delphi Geocoding Software which is connected to Google location database, the GPS coordinates can be converted into locations and the results are in Korean characters (Hangeul).

Even though the distributions of taxi passengers in Seoul city are relatively prevalent, some areas in certain districts show preeminent frequency. From the general distribution of taxi passengers, the Gangnam-gu area had the highest taxi passenger distribution (35%). Gangnam-gu which is known as a business area, had the highest potential of taxi passengers compared to the others. In this case the company can add the additional dispatching fleet to this area, especially in “Teheran Valley” where the traffic time are conducted at the morning rush hours (07.00 am-10.00 am) and in the late night/early morning (01.00 am-02.00 am). The distribution of the taxi drivers in shopping areas should also be managed well by company. The analysis result shows where Dongdaemun market gives a significant contribution and has the highest rate of taxi passengers (25 %), with the traffic time between 14.00 pm to 19.00 pm, when many people go out for shopping.

The inside, adjacent and remains area analysis results give more detailed information about taxi passengers behavior in Seoul city. The results show that most of the passengers ride taxi for a short distance, inside their district and rarely use taxi for the long distance, except in the late night/early morning time. From the riding time analysis we found the fact that most of the customers ride taxi in a short time (less than 30 minutes) with the highest interval time between 5-10 minutes (30 %). It proves that most of taxi passengers ride the taxi inside their district not to the adjacent or remains area.

In general, this research gives an illustration of the taxi's passenger riding distribution and taxi passenger behavior, especially in Seoul city area. Based on this analysis, the company can get the valuable information about their customer. It enables them to re-evaluate their current fleet management in order to optimize and increase their taxi's driver working performance.

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# The Effect of Information System, Organizational Structure, Human Resource Development, and Organizational Cultures to *Universitas Terbuka's* Learning Organization (LO)

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## Abstract

The purpose of this research is to examine the direct effects of variables of information system, organizational structure, human resource development, and organizational cultures to *Universitas Terbuka's* learning organization (LO). This is a mix methods research. Quantitative data were gathered using questionnaire, interview, and observation, while qualitative data were gathered by depth interview and observation. The populations of this research were 733 UT's lecturers, and the samples for quantitative data were 341 *Universitas Terbuka's* lecturers in the UT's head office and at UT's regional offices all over Indonesia. The sampling technic was simple random sampling. While the qualitative data were obtained by using depth interview to five informants. Data were analyzed descriptively and hypothesis tested by using regression analysis. Based on hypothesis testing, the results of this research show that (1) information system is the strongest effect to LO; (2) organizational cultures have an effect on LO; (3) organizational structure have no effect on LO; (4) human relation development has no effect on LO. At UT, the implementation of information system which is combined with total quality management is the first step to transform organization to a learning organization. The implication of this research is if an organization wants to increase its effectiveness, the organization should increase the effectiveness of its information system and organizational cultures.

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Keyword: Learning information system, organizational structure, organizational culture, and human resource development

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## Introduction

Strategic Plan of the *Universitas Terbuka*/UT (Indonesian Open University) stated that UT should be an adaptive and flexible organization. Furthermore, UT also needs to transform itself into a learning organization (LO). Values used as the basis for the building of organizational culture are total quality management (TQM) and good and corporate governance (*Universitas Terbuka*, 2009). The transformation of values, infrastructure, systems and work procedures, remuneration and human resources are aimed to achieve UT's vision.

Based on the International Council for Distance Education (ICDE) quality review in 2005, UT has been assessed as a learning organization while in the second review in 2010, the ICDE declared that UT has a world-class system on distance learning. However, these reviews showed that UT needs to make some improvements on several issues such as; (1) develop

the collaboration between students and alumni to create new knowledge, (2) improve the quantity and quality of communication between students and tutors with regional offices, (3) increase the staff ability in the exploration of information systems, and (4) expand the sharing between tutors and students. Based on the background, the purpose of this study is to explore the factors that support and hinder the UT transformation into LO.

### Theoretical framework

LO is defined into three different definitions. Senge defines LO as a place ... *a place where people are continually discovering how they create their reality. And how they can change it* (Senge, 2006). Garvin defines LO as the ability of an organization ... *organization skilled at creating, acquiring, interpreting, transferring, and retaining knowledge, and modifying at purposefully its behavior to reflect new knowledge and insights* (Garvin, 2000). Schermerhorn defines LO as a process within the organization ... *the process of knowledge acquisition, information distribution, information interpretation, and organizational retention* (Schermerhorn et al, 2011).

Despite the differences in its formulation, the core subject of LO is the knowledge within the organization. There are many variables affect the organizational transformation into LO. According to Cumming and Worley (2005), organizational structure, information systems, human resource development, organizational culture and leadership are among variables that affect the LO. While Mullins (2005) states that components that affect organizational structure of the LO are organizational culture, and organizational climate. Marquardt (2002) states five subsystems which have strong influence to LO, are: learning, organization, personnel, knowledge, and technology. George (1997) emphasized that the need needs to create a conducive organizational climate are by encouraging, supporting, and providing rewards to the learning process. Meanwhile, the main variables that affect LO are information system, organizational structure, human resource development and organizational culture.

Schermerhorn (2011), Cummings and Worley (2005), and Jones and George (2008) stated that information system (IS) plays a role in the searching, distributing, interpreting, storing, and presenting the information. To facilitate a LO, an organization needs a flexible and collaborative structure (Limerick and Cunningham, 1993); flat, dynamic, and supports empowerment (Nonaka and Takeuchi, 1995); simple (Peters and Waterman, 2004), freedom to communicate inside an organization (Fulmer and Keys, 1998). Other factors that affect the organization are human resource development (Marquardt and Reynolds, 1994), assessment, reward and training (Cumming and Worley, 2005), and human resource competencies (Mabey, 1994). Another component related to LO is the organizational culture (Cummings and Worley, 2005). Lam, et.al (2008), and Konidari and Abernott (2006) found that TQM is a bridge for the organization to be transformed into LO.

This research is focused on studying the influence of variable information systems, organizational structure, human resource development, and organizational culture on LO.

### Research Methods

Mixed methods approach, especially concurrent mixed methods procedures, was used in this research since it could provide better understanding of the research problems. Population of this research was 733 lecturers, while the total sample was 341 lecturers from head office and 37 regional centers. The sample was determined by using simple random sampling. Data were collected using questionnaires, interviews, and observations.

The definition and indicators of independent and dependent variables are (1) learning organizations, the organization that provides organizational climate to build organizational effectiveness. LO is measured by testing organizational norm, knowledge creation, knowledge storing, knowledge dissemination, using knowledge. (2) While the information systems are defined to acquire and manage information for decision making. Indicators for measuring the information systems are the ability to acquire data and information, ability to categorize data and information, ability to store data and information, ability to process data and information, and ability to distribute data and information. (3) Organizational structure is the relationship between task and report coordinating and motivating organizational members to work together. Organizational structure is measured by clarity of the job description, coordination effectiveness communication effectiveness, reporting mechanism, work system and procedures, and authority. (4) Human resource development is the whole management activity

aimed to retain and get high quality of human resources. Human resources are measured by recruitment and selection, training and development, performance appraisal, compensation, and career development. (5) Organizational culture is a set of value and norm used to control the behavior of organizational members. Organizational culture is measured by using the value and norm; internalizing of value and norm to the new organizational member members, and distributing the value and norm.

The main data collection instrument was a questionnaire with 129 questions. The Instruments' validity and reliability were tested to 40 samples from the study population and 6 experts. The Validity test results produced five invalid items. And the construct validity was tested using the corrected item-total correlation. Table 1 shows the validity test result and reliability coefficient for each variable.

Table 1 Resume of Validity Test Result and Reliability Coefficient

No	Variable	Number of Items	Number of Valid Items	Reliability Coefficient
1.	Learning organization	23	21	0.922
2.	Information System	20	20	0.956
3.	Organizational structure	40	37	0.939
4.	Human Resources Development	25	25	0.947
5.	Organizational culture	21	21	0.941
	Total	<b>129</b>	<b>124</b>	

Questionnaires were sent by email to 733 lecturers in 11 units at head office and 37 regional centers. The printed questionnaires were also sent to the respondents. 245 (71.8%) emailed instruments and 96 (28, 2%) printed instruments were filled out and sent back. The qualitative data were collected through some interviews with five informants: team leaders of Instructional Materials Development, Promotion, Research Information Systems Development, and Application Development Services of Bogor regional center, Head of Bogor Regional Center. The five informants were chosen because they had some experiences on how to create knowledge at UT. Data were collected at the UT Head Office and Bogor Regional Center. The interview was aimed at providing additional information about the factors that influence the process of knowledge creation at UT. Data were tested with the linearity test and the test of normality, using SPSS 19<sup>th</sup>. Linearity test performed at significance level of 0.05.

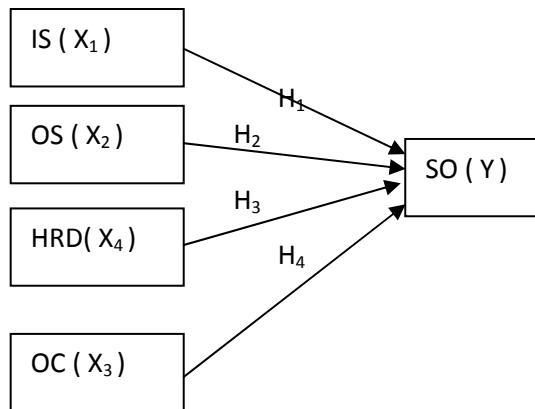
Table 2.The Resume Score of Data Linearity Test

No	Tested Variables			Significance	H1	Relation
	Indpnd.Variables	Depend. Variables				
1.	Information System	LO	0.763	0.000	Accepted	Linear
2.	Organization	LO	0.559	0.000	Accepted	Linear
3.	Organizational Culture	LO	0.597	0.000	Accepted	Linear
4.	HRD	LO	0.554	0.000	Accepted	Linear

Table 3. The Resume Score of Data Normality Test (Kolmogorov-Smirnov Methods)

No	Tested Variables		Significance	H1	Effect
	Indpnd.Variables	Depend. Variables			
1.	Information System	LO	0.79	Accepted	Normal
2.	Organizationall structure	LO	0.911	Accepted	Normal
3.	Organizational culture	LO	0.353	Accepted	Normal
4.	Human Resource Development	LO	0.698	Accepted	Normal

Figure 1 - Inter-Variables Effect Model



The effect of independent variables on dependent variables measured by multiple regressions.

### Findings and Discussion

Findings of the study are 1) Information System (IS) has a positive effect on the learning organization (LO); b. Organizational structure (OS) has no positive effect on learning organization (LO); c. Human Resource Development (HRD) has no positive influence on learning organization (LO); d. Organizational Culture (OC) has positive effect on learning organization (LO);

Table 4. The R resume of the score of Inter-Variables Effect Model

Variable Effect	Coefficient	The value of T	Significance (sig<0.05)
<b>IS → LO</b>	0.580	12.673	0.000 (sig)
<b><u>OS → LO</u></b>	<u>0.040</u>	1.266	0.207 (not sig)
<b><u>HRD → LO</u></b>	<u>0.065</u>	1.425	0.155 (not sig)
<b>OC → LO</b>	0.138	2.438	0.015 (sig)

Hypothesis test results show that the most influential variable in the Learning Organization of Universitas Terbuka is information system (IS). According to the informants of the research, they have an access to share data and information to everyone related to their job. They also feel free to share data and information to management using internet or mobile phone. The informants said that they have sufficient authority and less hierarchical position on the team. Meanwhile, the organizational structure (OS) and HRD variable indicated there is no positive and significant effect on LO because UT OS is kind of bureaucratic model. UT needs more flexible OS, so that the information system is useful to break the hierarchy.

Statistical analysis showed that the Senge's (2006), Garvin's (2000), and Schermerhorn's (2011) concepts of LO have occurred in UT. Hypothesis test results indicate that the variables of the organizational structure and human resources development have no effect on UT's LO. However, the concepts from Limerick and Cunningham (1993); Nonaka Takeuchi (1995); Peters and Waterman (2004); and Fulmer and Keys (1998) which stated that there was a direct effect of

organizational structure on LO, was not proven at UT. According to the informants, they have to communicate to another team members and sometimes to management intensively, and the IS provides all system, tools, and methods to acquire, manipulate, store, and distribute data and information. The UT's organizational structure d does not provide such mechanism.

The result of this study do not support the concepts of Marquardt and Reynolds (1994), Cumming and Worley (2005) and Mabey, (2004) which stated that LO is affected directly by the HRD variables. There are three reasons why the variable of HRD has no effect on the LO at UT; i.e. problem of coordination among team members, less allocation of time provided by team members, and the lack of vision of the team members. Though UT also provides compensation and other motivational factors. The opinion of Schermerhorn (2011), Cummings and Worley (2005), and Jones and George, (2008) who stated that the information system variables have an influence to LO, were supported by data in this research. The influence of organizational culture on LO as proposed by Marquardt and Reynolds (1994), Robbins and Judge (2011); Cummings and Worley (2005), and Garvin (2000) is also supported by quantitative data in UT. Qualitatively, the informants stated that the management: having tolerance to fault; support by provide fund, infrastructure and technical assistance; and UT always promote knowledge and experience to employees,

Since 2003, UT has implemented a quality assurance system. The implementation of quality assurance system has established a culture of employees to always do error detection and error correction. The culture support supports the creation, processing, sharing, and use of knowledge. The findings of Lam Poon Chin, et al. (2008) and Konidari and Abernott (2006), indicated that the total quality management is a good bridge to a learning organization. The quality assurance system (TQM) assists UT in arranging systems and procedures which then encourages the creation of knowledge. From UT experience in transforming into LO, an organization needs to build effective information systems and strong organizational culture. In addition, the implementation of the total quality management will assist the organization in building an effective organizational system and a learning culture. Some Factors to be considered in building a LO are sufficient knowledge and experience of employees, compensation system, care management, fault tolerance, and providing sufficient authority to employees.

This research was focused on the factors influencing a learning organization namely information system, organizational structure, organizational culture, and human resource development. This research was not aimed to describe and analyze the process of value and norm testing, knowledge sharing, knowledge storing, and knowledge implementing to create products and services. To follow up the study on learning organization especially to explore why and how the learning organization works, can be conducted in the future.

## **Conclusion**

Descriptive analysis of this study showed that UT is an effective learning organization, with an effective information system and a strong organizational culture. From the hypotheses tested, the variables that direct influence the LO are an effective information system and a strong organizational culture. Meanwhile, the two variables tested do not have any effect on the LO as the structure of the organization and human resource development vary. Additionally, the implementation of TQM has helped set up the UT organization's culture so that it becomes easier for UT to be transformed into a LO.

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## The Effect of the Students' Perception on Service Quality to Their Loyalty at the Advent University, Bandung

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### Abstract

Educational institution should emphasize their services for the student. The service components for the educational institution consist of the infrastructure, the process, and the human resources. These services are crucial for the success of the institution to attract new students for the years to come and should be prepared parallel with the external marketing program. The Advent University of Indonesia (UNAI) Bandung has already conducted the external marketing program and succeeded to attract the high school graduates to join UNAI. But how about the services they provide? This research analyzed the quality of services that affects the loyalty of the UNAI students. The total population in UNAI was 1810, but the survey was conducted specifically in Business Student Department which consisted of 605 students. The 86 samples were taken by using nonprobability sampling and slovin methods. To analyze the problems, the research used descriptive analysis and simple linear regression. The results showed that the services quality and students' loyalty in UNAI were at the high points. In addition, the service quality had a linear and significant effect towards the students' loyalty. That means UNAI should keep emphasizing on their services. The research suggested that the measurement criteria for the students' loyalty needed to be adjusted, and the institution should make consideration to view their students not only as their customers but also as their service/product materials.

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**Keywords:** internal marketing; service quality; customer loyalty; education organization; services marketing

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### 1. Introduction

The important role of the marketing in the organization has been discussed frequently and has already proved as the vital aspect [1], [2]. Several indicators have been used to measure the effectiveness of the marketing program. Marketing program is not just about sales promotion and advertising but instead it consists of much more comprehensive actions. Organization needs more than just the good products or services. They have to market the products and services differently. The forms and the function of marketing have changed [3]. The conventional method of marketing by telling the customers about our products/services is no longer effective since they can get the information by themselves easily. As the result, they put more trust on their friends and relatives when it comes to buying decisions [4]. The conventional marketing requires a lot of funds and sometimes the results are far from the expectation; hence, the marketing strategy based only on the activities of the marketing department has been shifted. Unquestionably, the marketing department is responsible to introduce the services to the customers, but the company should prepare their whole team to engage in the holistic marketing strategy. After producing great services and offer them to the customers, a company needs to set up a supportive team in order to facilitate the customers to enjoy the offering. Customers who buy the services should be treated well by the organizations, especially if we talk about the services industry, where there are several critical points to satisfy the customers. Everybody who potentially interacts with the customers should be able to perform well according to their expectation. They have to show them that their decision to use our service is correct. Failure to do so may result in the customers' dissatisfaction, which could get worse if the customers decide to shift to our competitors. There are several steps which can be used to maintain the great level of services. The people who run the services, for example, the facilities, ease

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of access to use the facilities, the speed of services delivery, and the responsiveness of the services also play an important role. The service quality elements are crucial, especially in an educational organization like UNAI.

UNAI was established in 1949 and is now managing more than 1.810 students [5]. In recent years, UNAI has attracted more applicants from across the country and abroad. They have several marketing programs such as "open house" at every semester; in the occasions, high school institutions are scheduled to be invited to come and visit UNAI for one day tour. Another program called "December Mania" is an event where all Choirs in UNAI get involved to promote UNAI in big shopping malls in Bandung and Jakarta every December, after the final examination. They will sing some pop songs, folksongs and religious songs and at the same time hand out some brochures to the visitors. Also, the promotion team always try hard to visit some high schools in some countries to make promotion programs as well. All of these are some tools designed to increase the number of students. These programs have proved to be successful based on the increasing number of student as stated in Table 1. Each year UNAI accepts 700 new students. This is certainly a great achievement especially if we compare with the fierce competition for undergraduate schools in Bandung. As for the Business Student Department, they accept around 250 Students each year.

There are at least 115 private universities in Bandung, Indonesia [6]. This huge number certainly will create an intense competition among the institutions to acquire new students. On the other hand, the parents, and the students will try to choose the best among them and usually have certain criteria. One of the criteria is the accreditation which reflects the quality of the school. UNAI has already achieved the B level accreditation in most of their study programs. Undeniably, this will support the institution's effort in acquiring the new students. Nevertheless, there are more than just the criteria. The success of the marketing program, proved by the constantly growing number of the applicants must be supported with other activities to improve the learning experience in UNAI. They should provide better educational services for the students. In fact, these services were the most important aspect in maintaining the positive image of UNAI. UNAI has a unique management type because it is connected with the General Conference (GC) as their Central Adventist Foundation. The service quality that UNAI's provided was patterned or based on the GC strategy. Furthermore, relying on the marketing effort was not enough because other organizations must be bound to do the same if not more

Table 1. UNAI's Student from 2009 – 2014 [7]

Academic Year	Total of Student
2009-2010 First Semester	1,316
2009-2010 Second semester	1,244
2010-2011 First Semester	1,567
2010-2011 Second semester	1,572
2011-2012 First Semester	1,722
2011-2012 Second semester	1,705
2012-2013 First Semester	1,852
2012-2013 Second semester	1,762
2013-2014 First Semester	1,810

Table 2. UNAI's Business Student Department from 2009 – 2014 [7]

Academic Year	Total of Student
2009-2010 First Semester	432
2009-2010 Second semester	404
2010-2011 First Semester	470
2010-2011 Second semester	447
2011-2012 First Semester	562
2011-2012 Second semester	551
2012-2013 First Semester	601
2012-2013 Second semester	584
2013-2014 First Semester	605

In order to maintain its attractiveness, UNAI must start to focus on its service quality. In any case, the product that it offers is the service. Kotler and Keller described the service as 'any act or performance one party can offer to another that is essentially intangible and does not result in the ownership of anything' [7]. Then, Zeithaml and Bitner mentioned that the service is an act, process, and performance resulted from individual/group for the benefits of other entities. It is also clear that the services is intangible but can be felt by others [8]. The consumption of the service does not result in exchanges of the product ownership. Education for example, is primarily a service supported by other tangible aspects. We do not buy the certificate or diploma neither the classroom, but what we buy is the educational process which is expected to be useful in the

future. Hoffman & Bateson stated the differences of the product marketing and services [9]. There are four characteristics which differentiate the service marketing: intangibility, inseparability, heterogeneity, and perishability.

UNAI must create the service environment where the students can have their best experience during their education process. In doing so, gradually, UNAI should have been improving the quality of the lecturers, constructing new buildings to accommodate more activities, enhancing the educational facilities (like laboratories and libraries), and introducing new information systems. These would improve the entire quality of services. In any case, the previous research stated that the service quality affected the loyalty [11].

The quality of service is explained as an achievement towards the standard of services [12] or the comparative judgment of expectations versus perceived performance [13]. The service quality can also be described as part of the customers' satisfaction. The service quality can become the differences for the organizations to enhance their market share [9]. The organizations which can realize the expected service from the customers and the service reality as close as possible will win the heart of the customers. To measure the service quality, we use the five dimensions from Parasuraman, Zeithaml, and Berry [7], [8], [12]. The dimensions are; tangible, reliability, responsiveness, assurance, and empathy, which should be applied simultaneously in order to manage their customers and their market shares better [18], [19], [20], [21], and [22]. With the great quality service provided continuously, only then, the company can satisfy their customers, and finally result in the customers' loyalty.

The second variable is the customers' loyalty. The company wants to know whether its customers are loyal or not. Are they willing to recommend the services to others? Are they coming back to buy more? Are they willing to come and buy other products from the company? This is called the loyalty. Organization must develop their adaptability so they can build the mutual relationship with their customers. The mutual relations will then become a trust that will lead to the loyalty. The customers' loyalty has a positive effect for the organizations [9], [15], [21], and [22]. Loyalty is related to the behavior, not attitude [15], of which the difference is seen on the action. The loyal customers will buy more product more frequently, buy new products, willingly give recommendations to others, and resist to other product/service offering [15]. Loyalty is regarded as an emotional and business attachment towards one organization [12]. For example, someone who is very loyal to the Coca Cola product, will buy more, they also will not be distracted by others promotions. Even, the loyal customers will promote the brand, product, and the company to others.

Eventhough there have already been many research on the service quality and loyalty, there are only a few that were conducted in the educational institution. , Hence, this research will analyze the service quality and the loyalty of the students; to measure the influence of the service quality towards the loyalty. Previous research for several industries found that the higher service quality perceived by consumer may result in long term loyalty; the airline [17] & [18], e-commerce [21], communication provider & hairdresser [22], casino [23], banking [24], retail [25].

This research will analyze the influence of the UNAI service quality towards the customer loyalty. Therefore, the hypothesis for this research are

*H0: The service quality has no significance effect towards the customer loyalty*

*H1: The service quality has significance effect towards the customer loyalty*

## 2. Methodology

The research population was the UNAI's Business Student Department students with the total number of 605 in 2013. The Slovin formula was used to draw the sample from the population with the error tolerance of 10% [26]. This means that the confidence level of the result was of 90%. The formula for Slovin is shown below;

$$\frac{N}{1 + Ne^2} \dots \dots \dots \quad (1)$$

The total sample of this research was 86, taken from the class of 2012 and 2013. We assume that since they had already had a long enough experiences in the service, they would give more accurate information. We used the nonprobability sampling based on convenience. This method was based on the limitation in time, place, and condition [26]. We have tried considerably to accommodate the population by distributing the questionnaires through the Student Committee and the various lecturers. The items in the questionnaire were designed based on the quality of service and loyalty concept introduced in several journals. Moreover, a pre-test was conducted before the questionnaire was actually used. There were 27 questions to measure the service quality (representing the five dimensions) and 11 questions for the loyalty.

The writer used statistical analyses to test the hypothesized relationships in the conceptual model. The study results offered intriguing and important findings both for research and practice needs. As the goal of this research was to measure the influence of one independent variable towards one dependent variable, the simple linear regression methods using SPSS 20 was applied. Before using the data to measure the linear regression, we also analyzed the validity and the reliability of the data. Using SPSS 20, we found that the *t calculate* for all the indicators in variables X and Y was bigger than the *t table*.

This means the items in the questionnaire met the validity test. The reliability test also showed that Cronbach's alpha for all indicators for variable X and Y was bigger than the standards for the reliability which was of 0.70 [27].

Regarding the analysis for each variable, the writer uses the descriptive method to explain the level of service quality and the loyalty. Unquestionably, we used the questionnaire to get the answer from the respondents. Yet, we measured the level of service quality and loyalty using modified Likert Scale. We did not use the mid-point to avoid the social desirability bias, arising from respondents' desires to please the interviewer or appear helpful or not be seen to give what they perceived to be a socially unacceptable answer [28].

The data were collected and analyzed using Excel application to draw the result. The first step was to sum all the answer for the service quality question by separating each result representing the five dimensions: tangible, reliability, responsiveness, assurance, and empathy. Using the modified Likert Scale, we had scale 4 points or each dimension; scale 1 represented the low level perception (very bad), scale 2 classified as a bad perception, scale 3 for good perception, and finally scale 4 for the very good perception. After we obtained the total result, we then calculate the average of each dimension. The next step was to multiply each answer in each dimension with the scale. For example the average for the tangible dimension in scale 1 was 2.6 hence it would be multiplied 2 by 1. The researchers applied this method for the rest of the tangible dimensions. After all figure was calculated, we obtained the result of 243.6. The final step was to calculate the rest of each dimension. The total point, for example 243.6, from the tangible dimension then would be compared with the maximum point if all respondents gave the scale of 4 answer for each question. It would be multiplied by 4, with the maximum point of 344. Then, 243.6 was divided by 344 and we obtained the 71%. It means that the level of service quality for the tangible dimension was 71%. The result for the rest of the dimension was also calculated. From this result we finally obtained the average for the percentage of service quality that was of 237.37 or 69%. It was considered as a high level. And obviously we treated the loyalty variable the same way.

We used the continuum line to identify the position of both service quality and loyalty. Drawing the continuum line was simple; we just needed to know what the lowest level of the figure. For this research of course it is 86. If all samples choose the scale 1 for all questions, then we get 86 as the result. The highest level is 344 if all respondents give the scale 4. The next step was to draw the line and divided it by the number of the scale used, four in this case. Next we set the range for each scale by subtracting the 344 (highest possible point) with 86 (lowest possible point). We divided the result by four. After we have the continuum line, we put the figure from service quality and loyalty into it. By doing this, we will know the level of the service quality perceived by the students and their loyalty.

The next method used in describing the effect of the service quality towards the loyalty was the simple linear regression. Simple linear regression is the analysis to measure the effect of one independent variable towards one dependent variable [27]. Before we perform simple linear regression there are several tests to be passed. The first one is the normality test to measure whether the data are normally distributed or not. In this research, one Sample Kolmogorov Smirnov method to perform the normality test was used. The second test will make sure that there is no heterocedasticity, and we use the Glejser Test to examine it. Both of the tests were conducted with the support of the statistical tools (SPSS). The final step before performing simple regression linear measurement, is that we should make sure that both variables have linear relations. By using the Anova table, the standard figure for Sig. Is below 0.05. After all the tests were implemented, the researchers finally sure that the data were normally distributed; there is no heterocedasticity, but there is linear relations for both variables. We can continue to measure the linear relations, which is happen to be the main topic of this research [27].

### 3. Result & Discussion

The research showed the UNAI's service quality from the perspective of the students. The analysis showed that the level of UNAI's service quality was still in the average zone (between satisfy and not satisfy). The table below is the detail result;

Table 3. UNAI Service Quality Assessment

UNAI's Service Quality Assessment						
	1	2	3	4	86	344
	VB	B	G	VG		
Tangible	2.60	17.40	57.80	8.20	86	243.60
Reliable	1.00	18.80	61.20	5.00	86	242.20
Responsiveness	2.00	32.83	47.00	4.17	86	225.33
Assurance	2.67	17.83	60.00	5.50	86	240.33
Empathy	5.80	18.80	53.60	7.80	86	235.40
					237.37	69%

VB=Very Bad; B=Bad; N=Neutral; G=Good; VG=Very Good

The students reputed all the UNAI's services were Good (69%), as shown by the figure above. This could mean that the students viewed the UNAI's service was somewhat like they had expected.

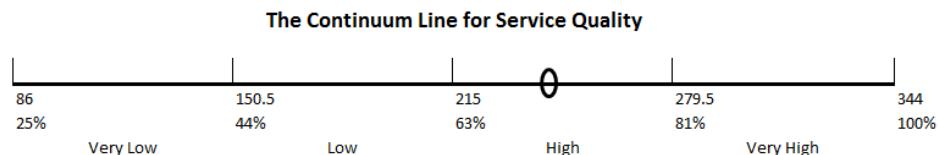


Fig. 1 Continuum Line for Service Quality

As we read the figure of 69% at the continuum line, it indicated that the UNAI's service quality was in high category, but the students suggested that the service dimension at UNAI still needed to be improved. Some complaints came from the students related to some unfriendly staffs in some divisions; most of whom were in the Registrar Office and S Dining Department. Some of the complaints at Registrar office were as follows: the bad service to the students as they were requesting to some letters, asking for attendance form, asking for markers etc. The students reported that the staffs reacted slowly. One of the complaints at the Dining Department was a bad attitude of the staffs while serving the food; they never smiled even a little bit rude. From the point of view of the lecturers, there are also some complaints regarding their teaching model which was old fashion, too fast in speaking, and a monotonous voice. Finally, the complaint came from the infrastructure matter that the Wi-Fi connection; students thought that the internet network speed was too slow, especially at night when most of the students and faculty use the Internet.

As in the theory, the good service quality brings up the customers' loyalty. This means that if the organization succeeds in providing the required services, the customers' loyalty tends to increase. This happened in UNAI as well. The students' loyalty towards UNAI indicated the high level. We only used three loyalty dimensions because regarding the education organization, the dimension of retention towards other offers couldn't be applied. Once the students have enrolled in a college, they seldom move to other one. They have to make a thorough consideration if they want to study in other college (ie costs, time, grade).

Table 4. UNAI's Student Loyalty

	Student Loyalty				VL	L	H	VH	Total
	1	2	3	4					
Using Other Services	5.67	35.33	40.67	4.33	86.00	215.67	63%		
Reffering to others	4.00	14.67	57.33	10.00	86.00	245.33	71%		
Attachment to UNAI	6.40	19.40	50.00	10.20	86.00	236.00	69%		
					232.33		68%		

VL=Very Low; L=Low; N=Neutral; H=High; VH=Very High

All the three dimensions showed the average point of 68% and were classified as high. The organization surely wanted their customer to be loyal. It means that the students of UNAI developed a rather good relation with the institution. High level of loyalty level could impact the image of the organization. The figures below showed the exact point of the UNAI students' loyalty.

The Continuum Line for Loyalty

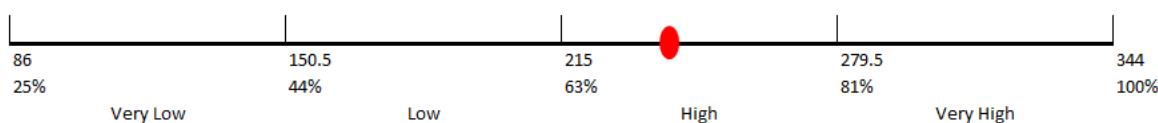


Fig. 2 Continuum Line for Loyalty

UNAI needs to maintain the level of its service quality and the students' loyalty, which already indicated that the organization already perform well. The result showed that the service quality had significant positive relation to the customers' loyalty. If the service quality increased (by taking some action to improve the situation), the loyalty would increase as well.

To measure the influence of the service quality and the students' loyalty, we used the simple linear regression. Before conducting the regression, the normality of the data should be measured. Using One Sample Kolmogorov Smirnov,

we obtained the Asymp. Sig. (2-tailed) of 0.954 which was bigger than 0.05, so the research data were normally distributed. Further, the heterocedasticity was used to test by using the Glaser Test. The result showed that the sig. for the service quality variable was of 0.664 which was bigger than 0.05. There were no heterocedasticity problems. To make sure whether data linear or not, we analyze the ANOVA table below.

Table 4 ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	941.718	1	941.718	64.421	.000 <sup>b</sup>
	Residual	1227.922	84	14.618		
	Total	2169.640	85			

a. Dependent Variable: Loyalty

b. Predictors: (Constant), Service Quality

The result indicated that the service quality and loyalty had **linear relations**, and the service quality **significantly** influenced the loyalty, since the probability Sig. was 0.000, below the 0.05. This meant that we could continue with the simple linear regression analysis. Let's take a look at the Coefficients table below and discuss the results.

Table 5 Coefficients<sup>a</sup>

Model		Unstandardized Coefficients			Standardized Coefficients	
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.082	3.478		.598	.551
	Service Quality	.372	.046	.659	8.026	.000

a. Dependent Variable: Loyalty

The simple linear regression equation was  $Y = 2.082 + 0.372X$ . The equation showed that if the UNAI's service quality bad then the student loyalty is 2.082 units. When the student perceives the UNAI's service quality increase in one unit then the loyalty will increase as of 0.372. But, in this case, it would be difficult to put number to describe the level of service quality and loyalty with just the number. So it is safe just to describe that it has linear and significant relations.

Table 6 Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.659 <sup>a</sup>		.434	.427

a. Predictors: (Constant), Service Quality

b. Dependent Variable: Loyalty

Furthermore, the variation in the service quality w would affect the loyalty by 43.3%. In other words, the 43.4% of the loyalty could be explained by the service quality variables, whereas the rest of it (56.6%) was explained by other factors not discussed in this research. Several other factors which could influence the students might be the location, the family, the funds, their friends, and even the desperation resulting from the public university rejection. As we all know that the R Square figure was between 0 – 1, the nearer the figure to one mean the relation is stronger. That is why we can say the relation between service quality and loyalty at UNAI was relatively weak.

Regarding to the hypothesis, the t test was used to decide whether the H0 is accepted or rejected. The t calculate figure showed number of 8.026, whereas the t table showed number of (0.1, 86-2) 1.6632, which means that the H0 was rejected, and H1 was accepted. Once again it has proved that the service quality has positive influence towards the loyalty. The improvement on the service quality in UNAI will affect the students' loyalty.

#### 4. Conclusions

We found that UNAI's service quality to the students as its customers perceived good revealed by 69%. This is rather good for the organization. The percentage of the student loyalty shows high level of 68%. Meanwhile, the figures need serious attention if UNAI wants to survive in the future. Even when the students' are loyal, their loyalty is not based on UNAI's service quality, yet there are other factors which make them stick up to UNAI. , However, the future will look bright, at least the students still regard something worthwhile if they pursue their education at UNAI. The next conclusion is about the influence of the service quality towards the students' loyalty, which is of 43.4%. Almost half of the students' loyalty is influenced by the service quality. This means there are other factors that affect the students' loyalty. Lastly, the students' experience about the service in reality is below their expectation. Unquestionably, there are some irrelevant complaints, like the difficulties in getting good grade but some of the complaints are worthed to be analyzed. If it is carried out seriously and comes from the heart, it could help to improve the organization's service quality.

Concluding this research, we come to our suggestion for the institution to improve its service quality. The first one is regarding the quality of the staffs. There are many complaints from the students concerning their performances such as lack of technology skillfa. We suggest the management to create a better work environment for the staffs and also give them training or other method to increase their service ability. The satisfaction of the employee would lead to a better service, so the management must seek out some ways to improve their staffs' working satisfaction. The next suggestion is regarding the lecturer. UNAI should re-screen the lecturers and put them under their major sciences. Many students complain about the lecturers who ,according to their opinion, do not master their subject. Other action which is necessary to be implemented is the attitude and behavior of the lecturers. Hence, the management should pursue some individuals who have great passion in teaching, rather than the ones who are using the opportunities to escape from the ordinary lives. In this case, the lecturers should have a passion in transferring their knowledge without any hesitation or doubt. As the complaints list shown, there are lecturers who still practice the old way of teaching even worse unwilling to share their knowledge. We think the UNAI should have a better way to enhance their lecturers' performance Such as sending them to join the conferences, encouraging them to submit their research to a credible journal, attending courses or training in their fields..

We encourage the institution to consider the results seriously. It might not affect the institution in the very near time, but if the institution does not change or improve its services management, this will become the initial step to the failure in maintaining its performance. Happy customer is great customer. While improving the service quality, UNAI also must view the students not only as the customers, but also as the raw materials they use in creating the great human resources for the nations. The true customers are the nations and the society.

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## The effect of Transformative Organizational Learning on Organizational Innovativeness

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### Abstract

The important antecedent in building organizational innovativeness is organizational learning (Argyris and Schön, 1978, 1995; Meeus, 2001; Yeung, Hunglai & Yee, 2007). But not all organizational learning affect organizational innovativeness that produce sustainable competitive advantage. Based on Livingstone definition (1970), Telkom includes a highly innovative company especially in POTS (premeliary Ordinary Telephone System) business. However, the facts show that the results of innovation on the POTS business are not able to be maintained with its competitive advantage (financial report of PT Telkom, 2010). According to Prahalad and Hamel (1990), Senge (1990) and Huber (1991), organizational learning effect on sustainable competitive advantage is a dynamic learning.

In order to achieve the desired results, the organization should operate on the basis of three levels of strategy, namely context, framework, and action. In a review of the learning dynamics, the third level of strategy is closely related to learning "looping". Bateson (1972), Argyris and Schön (1974; 1978), Burgoyne (1975), classified the looping learning into a single single-loop learning, and double-loop learning, while Burgoyne (1995), Flood & Romm (1996), Snell & Chak (1998) completed the loop of learning into triple-loop learning.

Synthesis of The Fifth discipline Senge (1990) and triple-loop learning produce Transformative Organizational Learning. This study concludes that the Transformative Organizational Learning improves organizational innovativeness to generate sustainable competitive advantage.

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*Keywords:* organizational learning; organizational innovativeness; triple-loop learning; the fifth discipline; sustainable competitive advantage.

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### 1. Research Background

The most important factor to build an organizational innovativeness is organizational learning, and therefore this construct needs to be studied deeper from various perspectives when we search the innovativeness which has impact on sustainable competitive advantage of an organization. Organizational innovativeness is affected by dynamic capability, the flexibility of the company (Henneke, 2007) and organizational learning (Yeung, Hunglai & Yee, 2007).

The dynamic aspects may be extracted from Tushman and Anderson (1986) opinion which they require that companies have the ability to translate and exploit knowledge into the social aspects of sectoral, technological and market development discontinuously. The learning organizations not only be enabling for corrective action (to accomplish improvements within-paradigm) as continuous improvement (Harrington, 1991) but also in the form of innovation that gives "breakthrough" and encourage because of the shift in paradigm (Baker and Sinkula 1999).

Based on literature search, there is controversy about the positive influence of organizational learning on organizational innovativeness. Yeung et al. (2007) for example, concluded that organizational learning has no effect on organizational innovativeness. This conclusion is contrary to the established concept of the earlier thinkers such as Argyris and Schön, (1978); 1995; Hurley and Hult, (1998); Hult, Nichols Jr., Giunipero and Hurley (2000); Slater and Narver, (1995); Tsai, (2001).

A discussion of organizational innovativeness is generally associated with the organization's goals of maintaining a sustainable competitive advantage. In fact, many organizations fail to achieve sustainable competitive advantage, despite they are having high organizational innovativeness (e.g measure of Livingstone, 1970).

Controversy gap between concept and phenomenon has created an opportunity for researchers to investigate the type

of organizational learning, which could increase the role of sustainable competitive advantage through organizational innovativeness. By analyzing organizational learning from various perspectives of thought, the combination of the concept of organizational learning leads to organizational innovativeness was found and it generated sustainable competitive advantage. This research introduces the notion of Transformative Organizational Learning to be the source of Organizational Innovativeness which has impact to sustainable competitive advantage.

The general objective of this research is to build a theoretical model of transformative organizational learning involving triple-loop learning and the fifth discipline of Senge which affect the organizational innovativeness, as well as empirical evidence on the theoretical model developed.

The benefit of this research for academics is to explain the main antecedents of organizational innovativeness that potentially improves sustainable competitive advantage. For practitioners, the results of this study provide a reference in the selection of organizational development strategy innovativeness through organizational learning strategy.

## 2. Literature review

Mexias and Glynn (1993: 78) defined innovation as a change of a non-routine, significant, and discontinuous which embody new ideas that are not the same as the previously prevailing organizational concept. It shows that innovative organizations are smart and creative (Glynn 1996; Woodman et al 1993), have ability of effective learning (Senge, 1990; Agyris and Schon 1978) and create new knowledge (Nonaka 1994; Nonaka and Takeuchi 1995). Cohen and Levinthal (1990) argued that the innovation output depends on the accumulation of prior knowledge that allows the innovators to assimilate and exploit new knowledge. From this understanding, it can be concluded that organizational learning may be a driving force for organizational innovativeness. This conclusion is in accordance with the opinion of Hurley and Hult (1998) which stated that learning capability enables the company more successful in generating innovative thinking. In other words, innovation is the result of organizational learning.

Many studies have concluded that learning is an antecedent innovativeness (Cohen & Levinthal, 1990, Hurley and Hult 1998), and organizational competitiveness (Kaplan & Norton 1992, 1996, Osterloh & Frey 2000). The relationship of organizational learning and organizational innovativeness are also supported by the notion that the process involves the use of knowledge innovation (Calantone, 2002), and the implementation of creative ideas within an organization (Amabile, 1996).

In the literature there are a variety of learning on organizational learning perspective but this study focuses on organizational learning which have great impact on the formation of organizational innovativeness and the consequences on the sustainable competitive advantage.

### 2.1. Organizational Learning and Learning Organization

Literature review found two important terminologies related learning in organizations, namely learning organization pioneered by Senge (1990) and organizational learning pioneered by Argayris (1996). Regarding this difference Tsang (1997, tp. 74-5) explains that organizational learning is an attempt by the organization to become a learning organization by making learning conscious, systematic, and synergistic involving everyone in the organization. According to Tsang et.al, learning organization is the highest stage of the organizational learning process in which an organization has achieved the ability to transform themselves continuously through the development and inclusion of all its members. In other words, organizational learning is the ultimate goal of organizational learning, and organizational learning is a process or stage to heading stage learning organization.

The purpose and process of achieving the goal essentially have the same substance, so it is possible there is an intersection between the two as in the definition. Because learning organization is the goal, then it can be regarded as a learning organization vision statement, while organizational learning can be seen as a way to achieve that vision. Although both have the same substance, but this study choose the term organizational learning as to show the dynamic response of the organization to the strategic environment changing. This means that despite the changing strategic environment, in a particular period, the vision should be kept, and that should not be changed is the program. Lagging indicators for the success of organizational learning, and organizational learning are leading indicators for organizational learning. Organizational learning is more oriented on the dynamic approach, then the learning organization which is oriented on the static approach.

Literature study also found a variety of definitions of organizational learning. It perceived organizational learning as a process of collective learning and accumulation of knowledge (Argyris, 1977, 1995; Handy, 1989; Schön, 1973). Also regarded as the organization's capacity to learn and create the future (Senge, 1990; Glynn, 1996). Organizational learning is defined as an organizational cognition (Glynn, 1996), knowledge or understanding (Hurley and Hult, 1998), the accumulation of knowledge (Handy, 1989), learning and solving complex problems (Argyris 1995; Schön, 1973; Argyris and Schön, 1978, 1995).

In "The Fifth discipline", Senge (1990) defined a learning organization as ... "an organization that has an enhanced

capacity to learn, adapt and change .... It's an organization in which learning processes are analyzed, monitored, developed, managed, and aligned with improvement and innovation goals ". Pedler, Boydell and Burgoyne (1988) defined a learning organization as "an organization that facilitates the learning of all its members and continuously transforms itself." According to Pedler, et al (Dale, 2003), a learning organization is an organization that: 1) Having an atmosphere where members individually driven expand learning culture; 2) Making the strategy of human resource development as a center of business policy; 3) Being in the process of continuous organizational transformation. The purpose of this transformation is that the company is able to seek widespread new ideas, new problems and new opportunities for learning, and is able to take advantage of competitive advantage in an increasingly competitive world.

Slater and Narver (1995) defined organizational learning as the development of new knowledge and a deep understanding of the potential influence behavior. Slater and Narver (1995) stated that learning is predicted to bring behavioral changes that lead to better business performance. In essence, the learning organization is expected to give birth to new ideas allowing the formation of a new way of working and that trigger organizational improvement (Chonko et al., 2003, p.327).

To be categorized as a learning organization, the learning organization is not only done out of necessity but also it should become a moment of a daily routine. Learning strategy is not just a human resources development strategy, but the strategy of the organization itself. In a learning organization, learning to be a function of operation, how to behave and system capable of becoming a driving force for continuous improvement or transformation and change radically.

## **2.2. Various Organizational Learning Perspective.**

In the discussion, of organizational learning needs to be understood the various issues of organizational learning is developed in accordance with the perspective of the researchers. As part of the discipline of organizational behavior, organizational learning development largely contributed by various social science disciplines. Because the organization is "a social system" consisting of groups and individuals working together to meet the agreed-upon some objectives" (Greenberg and Baron, 2003), the organizational learning can be viewed from various angles such as psychology, education, sociology, politics, economics and management. There are two main perspectives on the issue of organizational learning, which is the perspective of strategic management and organizational behavior perspective.

From the perspective of strategic management views, organizational learning means achieving strategic renewal; harmonizing continuity and changing at an organizational level (Crossan et al., 1999). In this perspective the growing debate about the single loop learning and double loop learning which is spearheaded by Bateson (1972), Argyris and Schön (1974; 1978), Burgoyne (1975), and triple loop learning which is spearheaded by Burgoyne (1995), Flood and Romm (1996), Snell & Chak (1998). Yeung (2007) focused on enterprise learning orientation; that the organizational learning process depends on the orientation of the company learning (Senge, 1990). Sinkula et al., (1997) showed that the degree of learning orientation represents a proactive learning in an organization. Organizations that proactively oriented higher learning will increase the capacity and self-renewal (Volves, 1993)

From the perspective of organizational behavior Yeung et al. (2007) considered that organizational learning occurs when people within the organization continuously assimilate new knowledge both from everyday work experience and other sources outside the organization. This process increases the intelligence and capabilities of the individual. The learning process that is inherent to every individual in the organization culture is formed and then further organizational learning occurred. Lessons that is learned from each individual become part of the memory, and cultural assets of the organization. This is in accordance with the opinion Argayris (1996) which defined the learning organization as:

".... A process whereby members of an organization act as learning agents for the organization, responding to changes in the internal and external environments of the organization by detecting and correcting errors in organizational theory in use, and embedding the results of Reviews their inquiry in private images and shared maps of organization ".

Organizational learning can occur at the time of transformation and changes of organizational culture and when it occurred a wide range of combinations of existing knowledge forms something new. According to Meeus et al. (2001) in Yeung (2007) the knowledge re-combination increases the knowledge, skills, expertise and competence of the organization. This knowledge forms through routine activities, culture and mindset of the organization and the paramount goal in organizational learning (Lyles and Schwenk, 1992; Chua, 2002; Yeung, 2007). Such knowledge is tacit and intangible assets that are difficult to be replicated by competitors. From the perspective of this organizational behavior, organizational learning is seen as an aspect of behavior or organizational culture. So according to this view, organizational learning is an intangible asset that is formed through evolution, and not created through strategic action.

Organizations are facing the changing of social and economic, regulatory, technological development and rapid market. In the market there is a pattern that change the relationship of complex market participants, such as market players that originally existed as customers or suppliers could both turn out to be a competitor or partner. Companies that previously emphasized on quantity becomes quality oriented, product-oriented and of turning into a service-oriented. To cope with the growing complexity, the organization needs to obtain and use a number of new knowledge that can make a change to the face of competition (Chawla and Rennesch, 1995; Lam, 2000).

Increased competition due to globalization pressures has driven the need for organizational learning. The demand of ability to learn, adapt and evolve as well as to commitment to improving processes and products on an ongoing basis, both internally and in relation to customers and suppliers is also the reason for the need for organizational learning (Laage-Hellman, 1997 ; Sako and Sato, 1997).

In terms of learning known as the existence of learning are important for the success of the organization of collective learning. Collective learning is important not only because of increased interest in organizational learning but also it provides a new approach in managing the organization.

Learning means making someone in the company to accept the changes (Stata, 1989). As Friedlander (1984) showed that learning allows an individual to choose the things that need to be changed and to understand how to change it. Nevis et al. (1995) stated that the learning process is complex, informal, intentional, and not linear.

Most authors see organizational learning as a complex process due to dismantle the old knowledge that has accumulated over time and replaced them with new knowledge by means of the acquisition of new knowledge (Garvin, 1993). Implementation, organizations and individuals must forgo (unlearn) behavior and the processes they used to do before then adopt new behaviors and processes (Nystrom and Starbuck, 1984).

Fiol and Lyles (1995, p. 803), quoted by Bernard Burnes, Cooper Carry, Penny West (2003) stated that organizational learning is the process of improving actions through knowledge and better understanding. Similarly, Argyris (1997) argued that organizational learning is a process of error detection and correction, thus precipitating changes in behavior. An important result of the study is the birth of a way of thinking and new ways of working (Chawla and Renesch, 1995), which in turn is expected to result in improved survivability and ensure the organization.

Even though according to the knowledge-based view, knowledge derived from an individual but as a social community, the company is capable of creating, transferring and integrating knowledge of science across individuals quickly and efficiently (Kogut & Zander 1996). Organizational learning occurs during the process of aggregation of knowledge through the interaction patterns of the employees in the organization. Besides, the company is also able to support and provide a variety of learning mechanisms so that the knowledge can be easily spread and grow. In companies that are learning effectively, build their routine activities to develop, store and apply knowledge (Nelson & Winter, 1982).

Learning construct in this study is derived from the Theory of Contextual Knowledge Management and Theory. Context in the narrow sense is a systematic relationship between the individual and the environment (Engestrom, 1987 in PE Jensen, 2005). Lave (1988) used the term to describe the relationship between the settings of individual action and the arena; arena where an activity is performed (Jenses, et al.) and is defined as an institutionalized framework.

In a broad sense, the context is formed by the activity involving individuals and artifacts, which means that the context is not located in its own right, but rather uses a framework or container in which the action is done. Internally context constructed through the action of individuals and externally through the action of other individuals, artifacts, and historical contexts that have created concrete (Nardi, 1996 in Jensen et. al.).

Many existing knowledge within the organization cannot be codified; personal, specific and contextual, it is difficult to write. This kind of knowledge is known as tacit knowledge (Polanyi, 1966 in Jialin Y., 2006). Wagner and Sternberg in Jialin (2006) defined knowledge tacit as "work-related practical knowledge" learned informally in the work.

Nonaka (1991, 1994) which is then quoted in Jialin (2006) divided knowledge into explicit knowledge (articulated) and knowledge tacit where interaction is vital in giving birth to new knowledge. According to Nonaka (1994) organizational knowledge is created through a continuous dialogue between tacit knowledge and explicit knowledge. He identified four types of knowledge conversion that are socialization, combination, internalization and combination. Of the four modes of knowledge creation, knowledge externalization is the process of conversion of knowledge into explicit knowledge tacit. Collective knowledge represents knowledge that is fundamentally inherent in the form of social practice contained in the group tacit experience.

Spender (1996) stated that the collective knowledge of the relative tacit, but can be accessed through the interaction between them. Refer to Spender (1996: 52), collective knowledge is a form of organizational knowledge safest and most strategic. Knowledge is the process of using information for productive purposes in specific contexts; all productive knowledge is contextual in the sense that all productive knowledge connected with and dependent on the organizational context (Jensen, 2005, et al.).

### **2.3. Organizational Learning "Looping".**

In order to achieve the desired results, the organization should operate on the basis of the context, framework, and action. Context is necessary because the organization works is based on past history, habits and strategies to achieve them. Organizational framework set or creates policies and procedures, and identifies constraints. Actions are the activities and tasks of staff to run the business process. In a review of the learning dynamics, the third level of strategy is closely related to learning "looping". Bateson (1972), Argyris and Schön (1974; 1978), Burgoyne (1975), classified the looping learning into a single-loop learning, double-loop learning, while Burgoyne (1995), Flood & Romm (1996), Snell & Chak (1998) to complete the triple-loop learning.

Organizational learning strategy of "looping" is the working principle based on a systems approach by applying negative feedback. The system is a unit which consists of inputs, processes and outputs. Control of the process is done through a feedback system. At first goal (ends) are set as conditions to be achieved (norms and values). Furthermore, the organization specifies how (means) to achieve it.

The third lesson is equally looping works based systems that implement feedback. The difference lies in the degree of change in the conception as a result of interpreting the context within, which the company later incorporated as feedback. The degree of change in the conception is classified into three kinds:

- 1) There is no change to the existing conception.
- 2) Modification of the existing conception.
- 3) Replace the old with the new conception of conception.

Changes in the context of the actual conception affects subsequent action program.

Single loop learning organization responds to internal and external environment changing, with error detection (error) on the output side, make corrections and modifications to the strategy based on old perceptions and norms existing organizations. Any deviation from the desired condition is evaluated and analyzed as a remedial action. Examples of such remedial action is happening in the business process improvement (Harrington, 1991), business process reengineering (Hammer, 1993), quality control (Kaizen), and other quality projects. System improvements in this phase of work are based on the same norms as before. There is no change in the terms of reference (frames of reference).

Single loop learning is closely related to the level of action. Organizations that implement single-loop learning only are described as doing repairs of the same mistakes over and over. Burgoyne (1995) described it as the lowest level where the old ways of learning becomes a source of resistance to change in future learning.

Organizational learning is not a single-loop learning spur the reconstruction of a new knowledge paradigm and radical innovation (Peschl, 2006a). The learners obey the rules and make corrections if the results are not as expected. Snell & Chak (1998) classify this as an improvement of learning outcomes through behavior change and call it "adjusting actions to achieve desired outcomes". Learning is essential to answer the question "are we doing the things right?"

Based on the interpretation of the work of Argyris and Schön (1978), Morgan (1997a) emphasizes the importance of learning a single-loop learning and double ring. Learning double learning is closely related to the goal of achieving desired results through changes in assumptions, ways of thinking and frameworks (reframing). For example, learn about new ways to think, how to analyze issues that affect the behavior or action.

Snell & Chak (1998) referred this as the double loop learning "transforming mental maps to generate new meanings and actions". This lesson answers the question "are we doing the right things?"

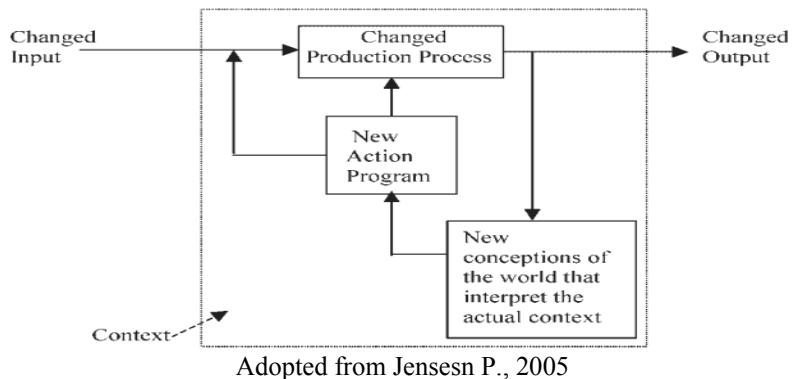
On the double loop of organizational learning, the learners are trying to get out of rules or norms that exist in order to find solutions for the error so it is not repeated. In response to the failure to achieve the performance of the company, double loop of organizational learning is no longer a question whether the organization doing things right (things right), but questioned whether the organization has been doing things right (the right things).

Double loop organizational learning and change objectives include evaluation, strategy and organization of mental map. Double loop organizational learning strategy works by modifying the terms of reference so as to generate knowledge and innovation space. Learners improve framework governing the action, for example by changing the system or procedure. After fixing the error learners try to review the framework for fault finding.

Double loop learning alternative approaches on the basis of new assumptions and norms to correct the error. The people within the company act as agents of learning to read and understand the environment, and develop appropriate responses in accordance with the new requirements that enable organizations adaptive and able to manage change effectively (Garratt, 1995). Learning a single-loop learning and double-loop learning that were argued by Argyris and Schon (1978) and the interpretation of Morgan (1997a) according to Flood and Romm (1997) was considered insufficient to overcome them and be done with triple-loop learning.

Triple-loop organizational learning developed in response to a realization of the mental models and ways of organizational learning that there is no longer sufficient. Change is no longer based on the reflection of cognition but based on existential reflection (Peschl, MF, 2007). The essence of organizational learning consists of a loop of three new discovery processes, methods or strategies to rebuild the frame (reframing) and generate mental maps that is entirely new, and no longer use the previously prevailing context. Individuals involved should replace the existing context with a new one; this means to create and accept new values and a new strategy in the process of learning (Bateson, 1987, p.287 in Jensen, P., 2005). Since the double-loop learning can produce organization that is able to adapt to its own environment, then the triple-loop learning produce organization that is able to create its own environment. The triple-loop learning concept is presented in Figure 1.

**Figure 1:**  
**Triple-loop Learning**



Adopted from Jensen P., 2005

In responding to unexpected results, the management company re-evaluates how to make a mental map, develop new ways to decide that something is true, belief, re-evaluate, and select actions based on the new belief chosen by the company.

Burgoyne (1995) argued that organizations need to implement triple-loop learning so the organizations can create their own environment. It can be seen from the ability to respond the changing of organizational context faced by the organization. Learners questioning again about belief (belief), way of thinking, and values of the organization; associating it with what and how it is done by an organization as well as to change the strategy of the organization; it helps organizations understanding themselves and others about the beliefs and perceptions. Learning at this level enables organizations to make the interpretation of existing experience, traditions and understanding during the application to the management of people and organizational work. Therefore, it is only at these three levels of learning, the organization learning concept can be fully grown.

Peter Senge (1990) in his book "The Fifth Discipline" (New York: Doubleday, 1990), divided the learning into individual learning, group learning and organizational learning and learning organizations. He said that the organization "is constantly enlarging its ability to create its future". Senge (1990, p.73) emphasized the systematic approach to learning to formulate mutually interrelated with five disciplines that need to be supported by individuals and groups that gave birth to the learning milieu, namely: 1) personal mastery (personal mastery); 2) mental models (mental models); 3) a shared vision; 4) learning team (team learning); and 5) the capacity for systems thinking (systems thinking).

Systems thinking provides the conceptual framework (conceptual framework) and a buffer for each of the other four. Learning organizations will not run without this fifth discipline. Four other disciplines are applicable to all levels of the organization of individuals, groups, and organizations and interorganizational. To create a learning organization, managers should use systems thinking and recognize the impact of one discipline to another discipline (Jones, 2001).

Encourage the development of personal mastery personal vision. Learning organization forms energy and vision to its members, as the spiritual foundation of the learning organization. There are two fundamental aspects of personal mastery: First, individuals who want to achieve personal mastery must understand clearly what is needed, and why it is needed. Second, the individual must observe reality explicitly. In this way the individual that is getting emotional stress and learning to live with the pressure that makes it capable of creative work in a situation like that and make individual plays a role in the creative process that is continuous.

According to Senge (1990a) on each individual there are deeply embedded assumptions that affect the way of individuals to understand and how to treat the world, which is called mental models. This mental model limits the vision of individuals and organizations leading to inertia and consequently hindering the organizational learning and should be eliminated so that individuals can create entirely new maximum future scenarios through imagination, and allows individuals to modify its objectives. This mental model of organizational learning occurs at the individual level.

Learning team emphasizes collective action and through the process of debate and dialogue with members of the group, members took off personal assumptions and thought processes collectively. By entering this ongoing dialogue and learning activities to understand the patterns of interaction and the role of each member in the group, learning occurred through the example of "self-managed group" or "cross-functional teams" in which each individual can share and gather skills and ability to solve problems in groups of individuals in group. Learning begins with dialogue that allows the group finds its identity. Learning group is an important element, because - not individualism group is the primary unit of study in this group that gave birth to organization. Learning synergy as a whole is greater than the amount thereof.

The third discipline is shared vision, pointing to the picture of the organization. The leader of the organization must be able to express and produce a picture of the future with a strong commitment. Share vision is intended to establish a frame of reference or mental models that are running in which all of the members of the organization used to deal with threats and

opportunities. Shared vision is the commitment and determination of all the people in the organization, not just obedience to the leader. Learning organization vision sharing is done on the level of organization.

There are three main issues that affect the organizational learning context, history and survival. Lane (2001) stated that learning is "socially constructed" that is what is learned and learn how to materialize that is closely related to the context in which the learning occurs. One important aspect of organizational learning is that organizations should not lose their learning ability even abandoned by its members. Effective learning organization not only affects the current members but also the members who will come later because of the experiences, beliefs and norms are accumulated throughout the course of the organization. Learning outcomes of the past affect the view of those in the organization of the next long-term learning.

Organizational learning generating collective tacit knowledge (Osterlo quoted in Frey 2000) that could potentially be a source of competitive advantage because it is difficult to imitate by competitors. But before the new collective knowledge tacit a potential strategic asset, and to make it effective need to be articulated in the form of organizational innovativeness. Organizational learning itself increase the capabilities of the company so that at the same time it can generate organizational learning and organizational innovativeness that is not easily imitated by competitors so that it becomes a source of sustainable competitive advantage.

### **3. Proposition Development of Transformative Organizational Learning Construct.**

The relationship between organizational learning and organizational innovativeness derive from the view based on the company's resources (Mc Evily and Chakravarthy, 2002) as it then further investigated by Yeung, Hunglai, and Yee, (2007). Innovation can be understood as an interaction between knowledge tacit cycle and articulated knowledge (Nonaka and Takeuchi, 1995 in C. Lawson, 1999). Tacit knowledge sharing activities among members of the organization that share the value, the norms, and the capacity to understand the articulation rules of knowledge (codes of conduct). Innovativeness depends on the knowledge and learning that lead to superior performance (Chaston, Badger, Mangles and Sadler-Smith, 2001; Hurley and Hult, 1998; Hult, Nichols Jr., Giunipero and Hurley, 2000; Cohen and Levinthal, 1990; Slater and Narver, 1995; Tasi, 2001; Therin, 2002). The higher the intensity of learning, the higher the potential innovativeness. Organization committed to learn can achieve a high degree of organizational innovativeness because the company is giving the facility to learn, to create, and to use new knowledge effectively and systematically.

In the literature there are no explicit separation of the type of learning that influence innovativeness in relation to sustainable competitive advantage. Innovations conceived by a company is generally is a reaction to a decline in performance or failure to achieve the specified quality standards. Innovation at this stage is usually born by elementary operational units within the organizational structure of the company. Operational innovation at this stage is necessary to solve elementary problems faced by a unit operation, and the solution can be done by simple causal approach. Although useful and valuable, the innovation at the operational level is easily to be observed so it can easily imitated by competitors that could not be used as a source of sustainable competitive advantage.

The literature found that previous researchers have managed to justify the significance of the effect of learning on innovativeness, but they have not explicitly mention certain types of learning to produce specific innovativeness which is needed to improve the long-term superior performance. Interpretation Morgan (1997), Flood and Romm (1997, 1998), Snell & Chak (1998) on the work of Argyris & Shon (1978) suggested the existence of three loops depicting organizational learning at levels of learning, i.e. learning a single loop learning, double loop learning, and triple loop learning.

In a single-loop learning system, management monitors and detects the output of the system to be compared with the output (end) the desired predetermined. If the results of the detection of deviations from the desired have met, then management will evaluate the errors / deviations, e.g. the analysis of cause and effect, and then take corrective action management. With the implementation of this system feedback, the system is expected to work well (doing the things right). Corrective action in order to maintain compliance with the desired results is done through innovation program. Even though the system has worked well and true, but the corrective actions were developed based on the same norms as before, there is no change in the terms of reference (frames of reference). Innovation at this stage may be adopting new ways to provide better output, but without changing the norm, routine or "theory in used". This single-loop organizational learning according Peschl (2006a) does not allow the construction of new knowledge paradigm and not produce radical innovations.

Depart from the review on the theory and understanding of the innovativeness organizational learning developed from single-loop learning consequential generate reactive organizational innovativeness that make innovation as a reaction against the failure of performance or deviation from predetermined.

Reactive innovativeness is done after it is indicated there are no deviation and corrective action after it's done. However, the revision merely eliminates the time deviation, only addressing the symptoms are visible, without eliminating the root cause of the deviation so that the real potential to happen again in the next period. This produces reactive innovativeness organizational innovativeness is a shortly solution, reciprocal response to the problems that is faced, operational, and elementary. In view of the resource-based (RBV), the innovativeness of this corrective although valuable but easily imitated so it is not enough to serve as a source of sustainable competitive advantage. In the short term, it may be

able to improve the output incrementally. Innovativeness at this level subsequently named reactive organizational innovativeness.

Double-loop organizational learning strategies is to modify the terms of reference so as to generate new knowledge space articulated in the form of innovation at work. In response to the failure to achieve the performance of the company, double –loop organizational learning is no longer a question whether the organization doing things right (things right), but it questioned whether the organization has been doing things right (the right things). Double-loop organizational learning changes the objectives which include evaluation, strategy and mental map organization (changing the action programs).

A typical double-loop learning can be observed when determining the mental maps; for example when a product's market share dropped significantly, it spurred the company to rethink its understanding of the needs of the market, competition and modifying the mental maps that allow companies to change their marketing strategies (Snell & Chak, 1998, in Janson, M., et al, 2007). This learning resulted in a change in the "value" of "theory in used", strategies and assumptions. Conscious individuals are involved and then look at the context for consideration in learning (Argyris and Schon, 1996 in Jenseen, P., 2005). Individuals within the company to read and understand the environment, develop appropriate responses and match the new requirements, thus allowing the organization adaptive and able to manage change effectively (Garratt, 1995 in Burnes, 2003). The results of organizational learning emphasizes the double-loop modifications mental map which then became the basis for organizational innovation such as modifying the terms of reference, procedures and new regulations aimed at the achievement of performance targets that have been set.

Innovativeness organizational learning resulting from this double-loop is adaptive; in interpreting the actual context is still influenced by the old conception modified (modified conception). Although it is classified as substantial, as to modify the reference frame (frame of reference) but it still have not touched the existential domain companies. In this study further dynamic adaptive organizational innovativeness.

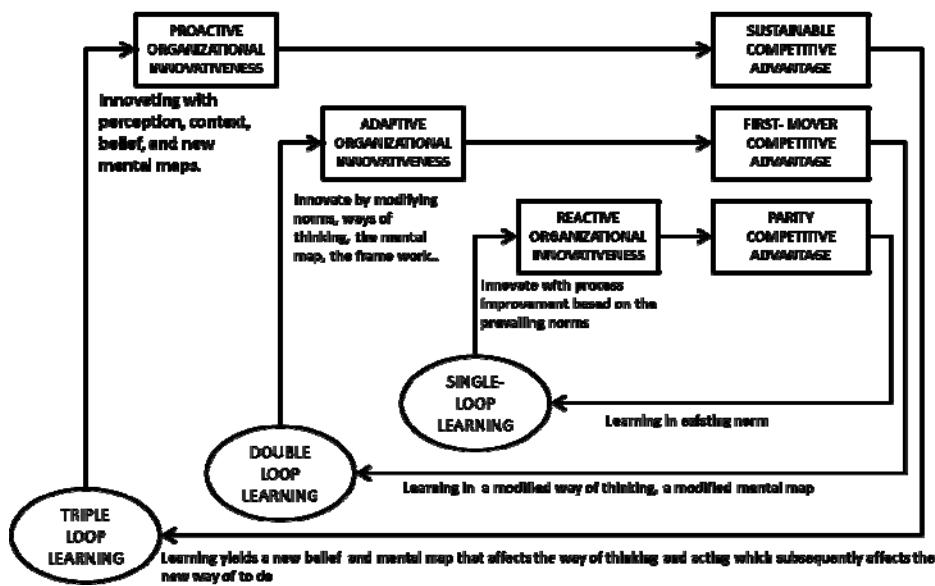
Circumference three organizational learning developed as an improvement to the realization of the mental models and ways of organizational learning that there is no longer sufficient. Change is no longer based on the reflection of cognition but based on existential reflection (Peschl, MF, 2007). The essence of organizational learning consists of three new discovery processes, methods or strategies to rebuild the frame (reframing) and generates entirely new mental maps; no longer to learn the context of the earlier prevailing. Individuals involved should replace the existing context with a new one; this means to create and accept new values in theory be used (in theory used) and also new strategies (Bateson, 1987, p.287 in Jensen, P., 2005). If the double-loop produces learning organization that can adapt to the environment, then the triple-loop learning generating organization can create its own environment.

Changes in the conception of the environment looks confusing, but at the same time the confusion would open the door to new interpretations (Burgoyne, 1995; Jensen, 2005) to the data and prior information - interpretation of the way the door opens a new act entirely, which gives space to give birth to a new innovation. Measures of organizational innovation in this loop are centered on the belief that is always updated according to the context faced by the company. Belief is a historical character and mission that guides the future direction of the company. The results of innovativeness to be typical and it is only suitable for the company. Competitors will mimic expected to face difficulties due to cultural and social innovation in the three loops and are inspired from the collective knowledge tacit socially complex that evolves through shared vision, where from sharing this vision gave birth to a new mental map.

In respond to unexpected results, the management company tries to re-evaluate how to make a mental map, develop new ways to decide that something is true (how do we decide what is right), re-evaluate the belief, and choose a new belief based on measures selected by the company. Corporate action to deliver innovative new services to its stakeholders, not solely as a spontaneous reaction to a competitor, or to follow the ongoing trend, but based on the consideration that values the company has developed a new conception of the strategic environment. The company has the freedom to choose the innovative actions in accordance with good corporate context selected in response to a decrease in performance that is face today, as well as innovative anticipatory proactive measures to ensure the long-term performance.

The third loop of learning generates new knowledge. In the lower-order learning (single-loop learning) new knowledge is likely to be explicit, operational, and elementary easily to be codified. The most high-order learning (ring-3) resulted in the most tacit knowledge and socially complex, substantive, and difficult to be codified. As a source of competitive advantage, then the tacit knowledge must be articulated in the form of innovativeness. Torlak G (2004) said that the third learning loop must exist within an organization and run simultaneously, though actually carried out in stages. Summary of the three loops of learning and innovation consequences of actions carried into a framework that integrates organizational innovativeness as shown in Figure 2 below.

**Figure 2.**  
Analysis of the Organizational Innovativeness by means Triple-loop Learning Concept



Source: synthesized from various concepts and developed for this research

The third loop of innovativeness in the images can be viewed as a form of organization in response to the performance of the organization and the strategic objectives of the company, so that the relationship between the two is the relationship of stimulus - response where the performance is seen as a response to a stimulus while organizational innovativeness. Organizational learning as an antecedent of organizational innovativeness affect the way an organization responds to the stimulus of organizational performance. Following the explanation of Snell & Chak (1998) cited by Janson, M, et al (2007), organizational learning double-loop learning is classified as an adaptive response that measure organizational performance, compare with predefined objectives or quality standards are not met and corrective action to close deviation, e.g. by way of business process improvement.

Judging from the impact on organizational change, Meyer (1993) and Lant & Mezias, (1992) in Newman (2000) distinguish organizational changes into changes in the order-1 and order-2. Single -loop learning impact on organizational change can be classified as a change in the order-1, where the changes are incremental and convergent so that it can be overcome by adjusting the system, process or structure but does not touch the fundamental change in strategy, core values, or corporate identity (Dulton & Dukerich, 1991; Fox-Wolfgram, Boal & Hunt, 1988). If referring to Argyris & Shon (1978), the organizational changes as a result of learning can double-loop learning is classified into order-2.

Framework in Torlak Flood and Romm (2004) suggested a triple-loop presence to enhance 1 learning in order to distinguish between the double -loop learning and modify the conception of change according to the context within the (actual). Thus triple-loop learning are more accurately associated with transformational changes that are articulated in the form of an order-3 organizational innovativeness.

This transformative organizational innovativeness developed through triple-loop organizational learning, namely through the development of a shared vision and the development of group learning (learning team) companies to respond the competitive performance proactively by asking "what are we becoming"; evaluating belief, perception of the environment with a new look, and innovating new belief and perception. This way leads to a change of new ideas and original fundamental in respond to changes in the strategic environment that is complex but remains centered on the belief that is chosen by the company. New ideas are fundamental, original and centered on the belief that innovation will give birth and cannot be imitated by competitors.

When the triple-loop learning concept and the Senge's fifth discipline synthesized, it will produce a learning system that is able to solve the problem of long-term existence of the company. The learning system consists of:

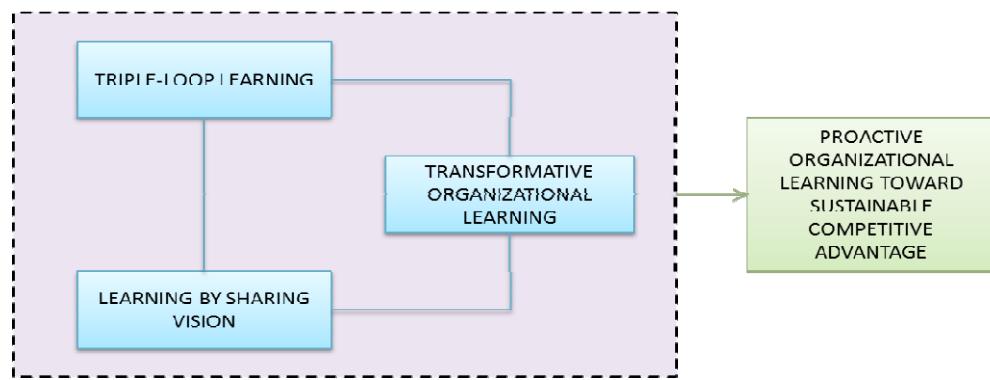
- Input, which is derived from the results of the scan context changes that threaten the company long-term performance;
- Process, the group learning activities and sharing vision;
- Output of the new mental patterns, namely a shift in perspective about the company itself and its environment, and how to proactively respond to these changes based on the new values that have been agreed as results from sharing the vision in the learning group. This is an innovative collective knowledge tacit a strategic knowledge that is not easily imitated.

Two other Senge disciplines namely personal mastery and "systems thinking" can be viewed as an initial requirement that it should be owned by every individual who goes into the company. With such a learning system, then the company will be able to take strategic preventive measures long before the life cycle of the product (product life cycle) through a phase of decline or long before a decline happened. Such learning in this study subsequently renamed as Transformative Organizational Learning and it proposed as follows:

### **Proposition of Transformative Organizational Learning:**

*Transformative Organizational Learning is a triple-loop organizational learning system which is conducted by means of sharing a vision which is implemented in a learning group to produce a new conception of the company. The Transformative Organizational Learning is needed by companies to improve their proactive organizational innovativeness which will increase their sustainable competitive advantage.*

**Figure 3**  
Pictographic of Transformative Organizational Learning



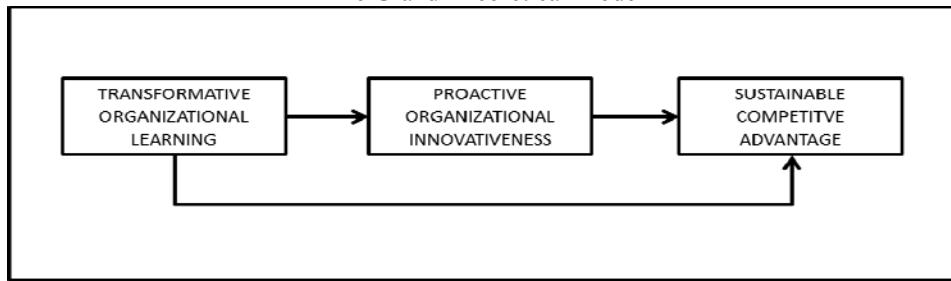
Source: Synthesis of various concepts and developed for this research

### **4. Grand Theoretical Model**

Based on the literature review conducted on the produce basic thoughts about the important antecedent of proactive organizational innovativeness, transformative organizational learning is then formulated into propositions. This proposition about Transformative Organizational Learning is derived from the learning loop of Argyris and Schon's (1974), the concepts of Five Disciplines of Learning Senge (1990), triple-loop learning of Flood and Romm (1996), organizational learning Torlak (2004), and contextual learning theory Jensen (2005) and triple-loop learning as a foundation of fundamental change of Peschl (2007). The flow theory and the concept has given birth to the collective tacit knowledge that was oriented on fundamental changes. The orientation of proactive personality of employees, employee groups and organizations encourage the ability to respond to environmental changes proactively. This proactive response encourages long-term anticipatory capabilities before a crisis occurs. The relationship of transformative organizational learning to proactive organizational innovativeness is derived from previous studies such as the study of Yeung (2007) about organizational learning, innovativeness and organizational performance, and Hsue (2007) Crossan (2003) on the effect of organizational learning and strategic renewal, Shahin & Zeinali (2010) about the matrix about the relationship of organizational learning and organizational innovativeness.

As a summary of the propositions that has been developed in this study, we has further developed a conceptual model in the form of a grand theoretical model. The proposition conceptualizes the main idea that is generated as well as associated with each other resulting in a grand theoretical model as presented in Figure 4 as follows:

Figure 4  
The Grand Theoretical Model



## 5. Hypothesis

Although the relationship of organizational learning and organizational innovativeness has been investigated but so far these studies have not adopted triple-loop learning and shared vision based on learning that become a requirement for the organization to achieve a state of learning organization. The transformative organizational learning generates new collective knowledge and creative ideas, tacit and fundamental capability of the company to form a valuable intangible, unique and not easy to replicate and thus potentially be a source of sustainable competitive advantage.

Based on a synthesis of the literature review, a new construct called Transformative Organizational Learning and Organizational innovativeness Proactive as presented in the empirical model will be presented. This research seeks to propose postulates that triple-loop organizational learning which is combined with sharing vision-base on learning by Senge has resulting a new collective knowledge, original ideas and creativity which are needed to improve proactive organizational innovativeness in accordance with the corporate context.

Hypothesis -1:

The triple-loop organizational learning has effects on proactive organizational innovativeness effectively.

Hypothesis-2:

Share vision-based learning has effects on proactive organizational innovativeness effectively.

Hypothesis -3:

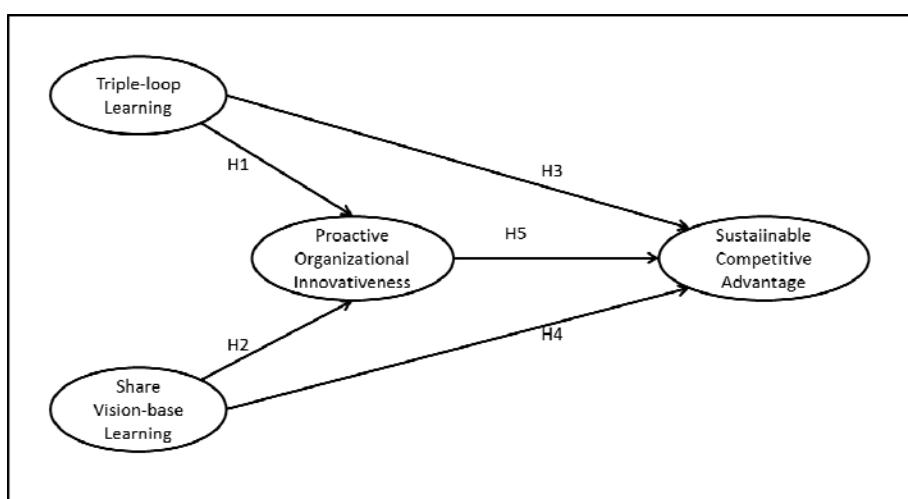
The triple-loop organizational learning has effects on sustainable competitive advantage effectively.

Hypothesis-4:

Share vision-based learning has effects on sustainable competitive advantage effectively.

## 6. Empirical Research Model

Figure 5  
Empirical Research Model



The important requirements to achieve the organization learning levels are: 1) the organization shall ensure

organizational learning. 2) The organization must be aware of the constraints of its members in perceiving and interpreting the decision makers that address the issues and strategies to overcome them. 3) The organization has had three circles of learning, namely the triple-loop, double-loop and triple-loop learning, 4) The organization has to understand the five learning disciplines Senge (Torlak, et.al., 2004), namely personal mastery, mental models, building a shared vision, team learning, and systems thinking (Jackson, 2000) at all levels of organization of individuals, groups, organizations, and inter-organizational (Senge1990a). 5) The organization must learn to live with the disorder and randomness.

## 7. Research Method

Data was collected using a survey technique that the entire population census made the object of research. The survey was conducted via the web (on-site survey), in which each respondent sent an electronic mail (e-mail). Population is taken from the management of the units that is responsible for achieving the target number of customers and revenues in accordance with the market segments that they faces. Based on the above information, the number of population target of this study was 5487 respondents.

The population in this study consisted of 52% people who work on the business units, and 48% of people who work in a support unit. The data sample of 210 respondents were taken from 1000 respondent who filled it completely, drawn from the regional population, business unit and non-business unit. To meet the recommended Kart G. Joreskog (2002) the raw data is first converted into the asymptotic covariance matrix (Asymptotic Covariance Matrix, ACM).

Because of the ordinal data is still treated as ordinal data and ordinal data only contained in the raw data, the correlation matrix used polychoric correlation (Polychoric Correlations Matrix, PCM). Furthermore, the data processed using the method of Maximum Likelihood (ML). Processing data using SEM method, then according to Hair et al., (2006: 735-759) it is necessary to test the validity and reliability of two stages. The test validity are staged as follows:

- The validity of the measurement model (Model Measurement validity). This phase is conducted to examine the relationship between the constructs (latent variables) and the indicators (observed variables), whether the indicators used actual measure in construct, in accordance with the existing theory. In the measurement phase of the model validity, the relationship between latent variables to the indicators was tested using Confirmatory Factor Analysis techniques (CFA). Indicators as valid if it has a loading factor of  $> 0.5$  (Ferdinand, 2006: 23; Hair; 2006: 753-759).
- Structural Model Validity (Structural Model Validity) This stage can only be done if the 'measurement model' has acceptable validity. Reliability test is intended to test the accuracy, stability and consistency in every measurement (Husein Umar, 2000). Reliability in this study used the concept of construct reliability (CR) or were also significant as the coefficient alpha. Constructs are said to be reliable if  $CR > 0.6$  (Hair et al., 2006: 777).  $R^{-2}$  value shown on each measurement equation is interpreted as a reliability indicator (Jorekog and Sorbon, 1993). While the estimated value (loading) is used as a validity coefficient.

The hypothesis tested models with Compliance Test Model (Hair et al., Joreskog & Sorbom, 1989; Long, 1983; Ferdinand, 2000) which includes: Chi-square, Goodness Of Fit Indices, Adjusted Goodness Of Fit Index, Root Mean Square Error Of approximation (RMSEA), Expected Cross Validation Index, Akaike's Information Criterion (AIC) and CAIC, Fit Index.

## 8. Data Analysis

### 8.1 Results of Validity and Reliability Test

Test convergent validity of each construct is done through confirmatory factor analysis (CFA). According to Hair (2009) respondents who answer the items are indicators that the construct should converge or share variance proportionally (share a high proportion of variance). Regression coefficients (loading factors) of each indicator is used as an indicator of validity, which is valid if the indicators have a factor loading  $\lambda \geq 0.5$  (Hair; 2006: 753-759) with t-value  $> 1, 96$ .

Table 1  
Validity and Reliability Test

Variables	Indicator	Std. Loading Factor ( $\lambda$ )	T - Value	Std. Loading Factor ( $\lambda_{\text{avg}}$ )	Std. Error ( $\delta$ )	Construct Reliability	REMARKS
PLT	PLT1	0,82	11,58	0,67	0,33		
	PLT2	0,83	13,12	0,69	0,31		
	PLT3	0,83	12,57	0,69	0,31	0,71	
	PLT4	0,81	13,96	0,66	0,34		
	PLT5	0,74	11,91	0,55	0,45		
	PLT6	0,74	12,67	0,55	0,45		
KHS	SHV1	0,77	13,34	0,59	0,41		
	SHV2	0,9	14,31	0,81	0,19	0,86	
	SHV3	0,77	12,4	0,59	0,41		
KOP	KOP1	0,71		0,50	0,50		
	KOP2	0,7	14,12	0,49	0,51		
	KOP3	0,53	8,75	0,28	0,72	0,84	
	KOP4	0,72	12,87	0,52	0,48		
	KOP5	0,7	12,67	0,49	0,51		
	KOP6	0,72	13,78	0,52	0,48		
KBB	KBB1	0,66		0,44	0,56		
	KBB2	0,72	11,29	0,52	0,48		
	KBB3	0,69	14,22	0,48	0,52	0,85	
	KBB4	0,72	11,16	0,52	0,48		
	KBB5	0,59	9,98	0,35	0,65		
	KBB6	0,78	13,28	0,61	0,39		

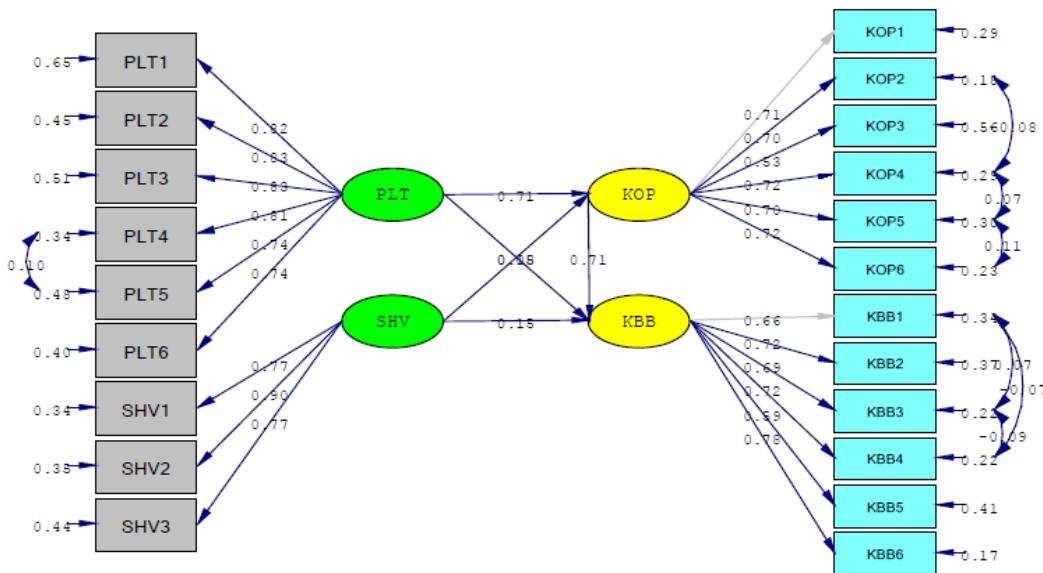
Source: Result of this research

The reliability was tested by means to construct reliability (CR) and variance extracted (VE) to measure the reliability. Constructs said to be reliable if  $CR > 0.6$  (Hair et al., 2006: 777).  $R^2$  value shown on each measurement equation is interpreted as a reliability indicator (Jorekog and Sorbon, 1993). Result of testing above (see Table 1) imply that the measurement model is a valid and reliable.

## 8.2. Path Diagram

The triple-loop learning (PLT) and learning by sharing vision (SHV) constructs are independent variable that are hypothesized effect respectively on proactive organizational innovativeness (KOP) and sustainable competitive advantage (KBB) and that KOP effects on KBB. Each construct then measured by its indicators. After all relationships have been set up in symplis, and then run them up, LISREL 8.8 performs path diagram, and many calculations for SEM solution. Figure-6 is describing the path diagram configuring all relationships in the SEM.

**Figure 6**  
**Path Diagram**



**Note:**

**PLT** = the triple-loop learning  
**SHV** = Sharing Vision  
**KOP** = Proactive Organizational Learning  
**KBB** = Sustainable Competitive Advantage  
**PLT1 ... PLT6** = indicator variables of PLT  
**SHV1... SHV3** = indicator variables of SHV  
**KOP1... KOP6** = indicator variables of KOP  
**KBB1 ... KBB6** = indicator variable of KBB

## 8.2 Effect of KSI on ETA and ETA on ETA

Table-2 below, shows that construct PLT effects on KOP and on KBB strongly ( $\lambda>0, 5$ ) and significantly (t-value $> 1, 96$ ). Based on that cut-off value, effect SHV on KOP and KPP is weak and not significant. Whereas KOP strongly and significantly effects on KBB.

**Table-2**  
**Effect of KSI on ETA and ETA on ETA**

ETA	Effects of KSI on ETA						Effect of ETA on ETA		
	PLT			SHV			KOP		
	Total	Indirect	Direct	Total	Indirect	Direct	Total	Indirect	Direct
KOP	0,71			0,18			0,71		
	-0,16			-0,16					
	4,46			1,16					
KBB	0,56	0,51		0,27	0,13		0,71		0,19
	(0,17)	(0,14)		(0,17)	(0,11)		(0,13)		(0,04)
	3,32	3,53		1,63	1,15		5,7		5

Source: From this research

The relationship between constructs are stated by the following structural equations:

$$KOP = 0.71*PLT + 0.18*SHV, \quad \text{Errorvar.} = 0.23, \quad R^2 = 0.77$$

(0.16)	(0.16)	(0.045)
4.46	1.16	5.10

$$KBB = 0.71*KOP + 0.055*PLT + 0.15*SHV, \quad \text{Errorvar.} = 0.21, \quad R^2 = 0.79$$

(0.13)	(0.17)	(0.14)	(0.043)
5.70	0.32	1.03	4.99

$R^2$  at that equation says that 77% of KOP is able to describe by those variable, and 79% for KBB.

### 8.3 Goodness of Fit Indices.

Each requirement of fit model is justified by each cut-off values. Tabel-3 below shows that almost all indices describe that the model is fit.

**Table-3**  
**Goodness of Fit Indices.**

GOODNESS OF FIT INDICES	CUT-OFF VALUE	RESULT OF THIS RESEARCH	REMARKS
<b>Absolute Fit Indices</b>			
$\chi^2$ Significance Probability	$\geq 0.05$	0.022	*)
GFI	$\geq 0.90$	0,91	Fit
RMSEA	$\leq 0.07$	0,033	Fit
RMR	$\leq 0.08$	0,03	Fit
SRMR	$\leq 0.08$	0,034	Fit
$\chi^2 : df$	<3	1,225	Fit
<b>Incremental Fit Indices</b>			
NFI	$\geq 0.95$	0,98	Fit
TLI (NNFI)	$\geq 0.95$	0,99	Fit
CFI (RNI)	$\geq 0.90$	1	Fit
<b>Parsimony Fit Indices</b>			
AGFI	$\geq 0.90$	0,88	Marginal
PNFI	$\geq 0.50$	0,82	FIT
PGFI	$\geq 0.50$	0,69	FIT

\*) Fit indicator is not reliable because of sample>200 (Ferdinand, 2006:59), for sample > 250 with 13-29 indicators, P  $\chi^2$  can be significant (<0.05) even though the model is fit model fit (Hair et al, 2006:753)

### 8.4 Hypothesis Test

Hypothesis is tested by justifying the T-Values of every relations, to T- Table at 5% degree of confidence or at cut-off value at +/- 1, 96. The result is that the relation SHV to KOP and SHV to KBB are not significant hence they are refused. The relationship of PLT to both KOP and KBB are significant and the relation KOP and KBB as well, so they are accepted. See Table-4.

**Table -4**  
**Hypothesis Test Result**

Hypothesis	Relationship	Parameter Value	T-Value	Decision
H1	PLT → KOP	0,71	4,46	accepted
H2	SHV → KOP	0,18	1,16	refused
H3	PLT → KBB	0,56	3,32	accepted
H4	SHV → KBB	0,27	1,63	refused
H5	KOP → KBB	0,71	5,7	accepted

Source: this research

It shows that the of triple-loop learning strongly effects on organizational innovativeness (regression coefficient,  $\gamma = 0, 71$ ). At the same time, it also has strongly positive impact on sustainable competitive advantage ( $\gamma = 0, 56$ ), means that the triple-loop learning has a positive impact either directly to sustainable competitive advantage or through proactive organizational innovativeness. The impact of proactive organizational innovativeness effects on sustainable competitive advantage also strong ( $\beta = 0, 71$ ).

## 9. Research Finding

The concept of organizational innovativeness as a vehicle toward sustainable competitive advantage incorporate the concept of transformative organizational learning as its antecedent. This study emphasizes the role of the triple-loop learning as the most strategic factor of organizational in transformative organizational learning.

This research found two key findings; the concept of transformative organizational learning (where the triple-loop learning and sharing vision reside) and the concept of Proactive Organizational Learning. Besides, this research had tested the set of indicators to measure both new concepts.

## 10. Theoretical Implication.

In general, this study support resource that based on the view of the firm theory which emphasize that the internal resources play a role in achieving sustainable competitive advantage. Transformative Organizational Learning is a strategic resources because it produces tacit knowledge dynamically so that it is socially complex, and it is able to produce a valuable innovation which is rare and difficult to imitate. It makes the company always looks different to their competitor. This findings also support previous findings which stated that:

- 1) An innovative organization is an intelligent and creative organization (Glynn 1996; Woodman et al., 1993), the ability of effective learning (Senge, 1990; Agyris and Schon 1978) and create new knowledge (Nonaka 1994; Nonaka & Takeuchi 1995).
- 2) Learning capabilities allow companies to be more successful in generating innovative thinking, in other words, innovation is the result of organizational learning (Hult, 1998).
- 3) Organizational learning into innovation enabling the "breakthrough" that encouraging because of the shift in paradigm (Baker and Sinkula, 1999).
- 4) Organizational learning is a critical element for the process of innovation (Meeus, 2001).
- 5) Some factors influence the organizational learning capabilities of organizations to stimulate innovation. (Martins and Terblanche, 2003).
- 6) Organizational learning generating development, acquisition, transformation and exploitation of new knowledge, which in turn drives organizational innovation. (Jimenez, 2008). Organizational learning is an effective factor for continuous improvement and innovation (Shahin & Zeinali, 2010).

## 11. Managerial Implication

Proactive organizational innovativeness of a company evolving in line with the development of triple-loop learning that can be characterized from:

1. Management team in a company consistently do a review of the existing ways of learning.
2. The company has a way to determine something is right or wrong.
3. Management team consistently perform the process of debate without any forcing force at the time of setting goals and how to achieve company goals. The participations open dialogue, encourages individuals leave their personal assumptions and enter the process of collective thinking.

4. Management team scans the company context and interpretation periodically of existing norms to be refurbished.
5. Management team consistently use the new norm in the future strategic plan.
6. Management team understand the unwritten road map on how to solve the problem of corporate strategy.
7. To encourage proactive organizational innovativeness degree, companies should encourage a culture of sharing and using knowledge of learning outcomes, encourage openness where one can experiment of "fail free" be accepted. Involving employees in discussing the goals and means of achieving them, is an arena of triple-loop learning happened. Management should facilitate routine that allows the creation and application of new knowledge effectively, and encourage interaction among employees to gain new knowledge, encourages openness, creativity, and growth of new initiatives.

As a learning, management is required to regularly scan the context of corporate changes that threat the long-term performance such as learning. The scan results are then discussed in learning group, and a sharing vision to produce a new mental maps are conducted. The new mental maps perform as an enterprise perspective about themselves and their surroundings and how to proactively respond to these changes based on the new values which is agreed that it comes as results from the sharing vision in the learning group. It is the collective tacit knowledge that is strategic and not easily imitated. Personal mastery and systems thinking of each member of the management team can be viewed as an initial requirement that it should be owned by every individual who goes into the company. With such a learning system, allows a company to take strategic preventive action advance before product life cycle come to declining phase and decreasing performance.

## **12. The Next Research Agenda.**

Future research needs to incorporate the variable time that is required for triple-loop learning variables to influence the proactive organizational innovativeness and sustainable competitive advantage. Of the research instrument, subsequent studies that used samples in industries with large populations such as banking, aviation, health services, modern shopping center so that the findings can be generalized.

By using the triple-loop learning, this study analyzed organizational innovativeness into three level innovativeness. It is required a further study to explore the role of innovativeness and innovativeness adaptive corrective on sustainable competitive advantage.

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# The effects of conscientiousness, agreeableness, organizational climate, and job satisfaction on lecturer's commitment at one public university in Jambi

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## Abstract

The purposes of this research were to verify the personality traits consisting of conscientiousness and agreeableness as personal factors along with job satisfaction and organizational climate as the environmental factors affect organizational commitment and to compare the organizational commitment of lecturers at one public university in Jambi. A questionnaire was used as a research instrument to collect the data from 140 lecturers. Data were analysed by using descriptive statistics and path analysis to analyse the effects of conscientiousness, agreeableness, job satisfaction and organizational climate on organizational commitment. The results of the study indicated that conscientiousness, agreeableness, and job satisfaction had direct effects on the organizational commitment, while organizational climate had indirect effects. Additionally, the organizational climate had direct effects on job satisfaction. These findings indicated that personal and environmental factors affect organizational commitment in an organization.

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*Keywords:* conscientiousness and agreeableness; job satisfaction; organizational commitment; organizational climate.

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## 1. Introduction

It is undoubtedly that education matters in the human and economic development. Knowledge (leak) has become the most important factor in the economic development [1] and “Investments in tertiary education generate major external benefits that are crucial for knowledge-driven economic and social development” (p. xxi) [2]. Tertiary education or higher education has a variety of purposes such as for effective creation, dissemination, and application of knowledge and for building technical and professional capacity. University as one of the forms of higher education has a central role to achieve those purposes.

However, those purposes will only be achieved through having highly quality and committed faculty members or lecturers. Commitment is related to someone’s attachment to one organization where she or he works. There are three components of commitment, namely affective, continuous, and normative commitment [3]. For affective commitment, it is connected with the existence of emotional attachment and involvement of employees in their organization, while continuous commitment is related to the awareness of the costs associated with leaving the organization. Additionally, normative commitment is connected with a feeling of obligation to continue employment [3].

In this study, lecturers’ commitment is related to how they are committed to their organization (university), which is influenced by their behaviors such as their attendance, academic atmosphere including their interactions with students, colleagues, deans, or rector, and their academic productivity including doing research, writing research articles, and participating in the development of their faculty and university. The existence of lecturers’ commitment at any university may become the standards of the effectiveness and quality of a university as a form of higher education.

One of the important factors related to the organizational commitment is personality (Conscientiousness dan Agreeableness). The appropriateness or the match between lecturers' personality and their job (person-job fit) is one of the factors influencing lecturers' commitment to their university. The more appropriate the lecturers' personality, the higher the lecturers' commitment to their university [3]. The other two factors are related to job satisfaction and organizational climate. The purposes of this research were to verify the personality traits consisting of conscientiousness and agreeableness as personal factors along with job satisfaction and organizational climate as the environmental factors affect organizational commitment and to compare the organizational commitment of lecturers at one public university in Jambi.

## 2. Methods

### 2.1. Research site and participants

This study was conducted at one public university in Jambi, Sumatra, Indonesia. The participants of this study were 140 lecturers consisting of 55 percent of male lecturers and 45 percent of female lecturers from five faculties. The age ranged from 30 to 55 years. In terms of working experience, all have worked for at least three years at the research site. All participants held at least an undergraduate degree and master's degree. The 140 participants were recruited through a variety of networking sources and permission from the authorities was also acquired.

### 2.2. Data collection and analysis

This study used a survey questionnaire in order to examine the personality traits consisting of conscientiousness and agreeableness as personal factors along with job satisfaction and organizational climate as the environmental factors affect organizational commitment and to compare the organizational commitment of lecturers at one public university in Jambi. The survey questionnaires were personally administered to each lecturer at one public university in Jambi, Sumatra, Indonesia. The questionnaires consisted of (1) the organizational commitment with 42 statements (e.g. I like working at this university), (2) the job satisfaction with 30 statements (e.g. the working environment encourages me to work comfortably), (3) the agreeableness with 25 statements (e.g. I feel happy that the sense of togetherness encourages the spirit of work at my university), (4) the conscientiousness with 30 statements (e.g. I prepare myself for doing my duties at my faculty), and (5) the organizational climate with 36 statements. A Likert scale (from "strongly disagree" to "strongly agree") was used to measure the personality traits consisting of conscientiousness and agreeableness as personal factors along with job satisfaction and organizational climate as the environmental factors affect organizational commitment and to compare the organizational commitment of lecturers at one public university in Jambi. Data were analysed by using descriptive statistics and path analysis to analyse the effects of conscientiousness, agreeableness, job satisfaction and organizational climate on organizational commitment.

## 3. Results and discussions

The purposes of this research were to examine the personality traits consisting of conscientiousness and agreeableness as personal factors along with job satisfaction and organizational climate as the environmental factors affect organizational commitment and to compare the organizational commitment of lecturers at one public university in Jambi. The following were the variable descriptions of the data obtained from the questionnaires.

In terms of the conscientiousness ( $X_1$ ), the findings indicated that 3, 57% of lecturers were included in a somewhat low category with the score interval between 2, 13 and 2, 54, while 25 % of lecturers were included in the medium category with the score interval between 3, 37 and 3, 79. For the high category, only 2, 14 % of lecturers were included in this category with the score interval between 5, 46 – 5, 88. The data indicated that the average of the score for the conscientiousness was 3, 71 with the deviation standard of 0, 70, and with the maximum score of 5, 46 and the minimum score of 2, 13. This finding revealed that the category of the lecturers' conscientiousness was medium.

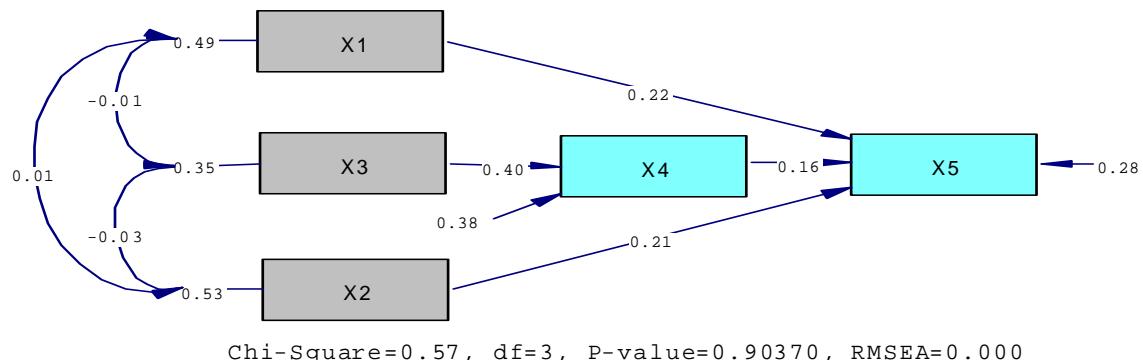
In terms of the agreeableness ( $X_2$ ), the findings indicated that 2, 86% of lecturers were included in a somewhat low category with the score interval between 2, 13 and 2, 51, while 19, 29 % of lecturers were included in the medium category

with the score interval between 4, 07 and 4, 46. For the high category, only 2, 86 % of lecturers were included in this category with the score interval between 5, 24 – 5, 86. The data indicated that the average of the score for the agreeableness was 3, 77 with the deviation standard of 0, 73, and with the maximum score of 5, 24 and the minimum score of 2, 13. This finding revealed that the category of the lecturers' agreeableness was medium.

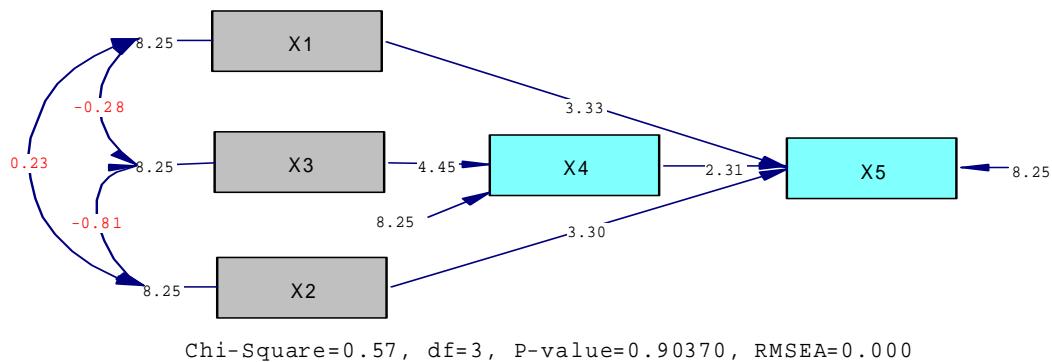
With regard to the organizational climate ( $X_3$ ), the findings indicated that 6, 43% of lecturers were included in a somewhat low category with the score interval between 2, 63 and 2, 93, while 20, 71% of lecturers were included in the medium category with the score interval between 3, 24 and 3, 54. For the high category, only 5 % of lecturers were included in this category with the score interval between 5, 07 – 5, 38. The data indicated that the average of the score for the organizational climate was 3, 83 with the deviation standard of 0, 59, and with the maximum score of 5, 38 and the minimum score of 2, 63. This finding revealed that the lecturers felt that the organizational climate at the research site was medium. In terms of the job satisfaction ( $X_4$ ), the findings indicated that 1, 43% of lecturers were included in a somewhat low category with the score interval between 2, 13 and 2, 49, while 25 % of lecturers were included in the medium category with the score interval between 3, 93 and 4, 29. For the high category, only 5, 71 % of lecturers were included in this category with the score interval between 5, 07 – 5, 38. The data analysis result indicated that the average of the score for the job satisfaction was 4, 00 with the deviation standard of 0, 67, and with the maximum score of 5, 38 and the minimum score of 2, 13. This finding revealed that the lecturers' job satisfaction at the research site was better. For the organizational commitment ( $X_5$ ), 5 % of lecturers were included in a somewhat low category with the score interval between 2, 63 and 2, 93, while 24, 9 % of lecturers were included in the medium category with the score interval between 3, 54 and 3, 85. For the high category, 4, 29 % of lecturers were included in this category with the score interval between 5, 07 – 5, 38. The data analysis result indicated that the average of the score for the organizational commitment was 3, 86 with the maximum score of 5, 38 and the minimum score of 2, 63. This finding revealed that the lecturers' organizational commitment at the research site was medium.

Additionally, in this study to measure the relationship among the variables including the conscientiousness ( $X_1$ ), the agreeableness ( $X_2$ ), the organizational climate ( $X_3$ ), the job satisfaction ( $X_4$ ), and the organizational commitment ( $X_5$ ), the following path models were used to describe the relationship among the variables:

**Figure 1: The path model's Coefficient value on the relationship among variables**



**Figure 2: The T-Value on the model of the structural relationship among the variables**



Based on the data analysis on Figure 1, the path coefficient value on the relationship among variables, the biggest path coefficient was the change effect of organizational climate on job satisfaction with a path coefficient value of 0, 45. This suggested that the factor that encouraged job satisfaction of lecturers at the research site was organizational climate. In the meantime, the path coefficient value that determined lecturers' organizational commitment with a path coefficient value of 0, 22 was conscientiousness, agreeableness with a path coefficient value of 0, 21, job satisfaction with a path coefficient value of 0, 16.

Additionally, Figure 2 describes t-value on the significance level of the causal-effect pattern among variables. It describes that the path coefficient value of the organizational climate on job satisfaction was the highest: 4, 45 with  $\alpha=0.05$ . Also, the path coefficient value of the conscientiousness on the organizational climate was 3, 33, while the path coefficient value of the agreeableness on the organizational climate was 3, 30 and the path coefficient value of the job satisfaction on the organizational climate was 2, 31.

The findings of this study revealed that there was an effect of conscientiousness, agreeableness, and job satisfaction as well as an indirect effect of organizational climate on lecturers' commitment to the university where they worked. The findings of the study were in line with what previous literature indicated that personal and environmental factors influenced organizational commitment [4] [5] [6] [7] [8]. This suggests that although a university is a kind of a professionally bureaucratic organization, lecturers' commitment to their university is influenced by the factors that are similar to any other organization. In this study, organizational commitment was influenced by personal factors such as conscientiousness, agreeableness as well as environmental factors such as job satisfaction and organizational climate. Another interesting finding in this study was that lecturers' commitment to their university was determined by job satisfaction, which they perceived based on the situation or climate at their university. Particularly, lecturers' job satisfaction was influenced by their satisfaction with leaders, colleagues, ways of communication, and facilities at the university or faculty. This finding was related to the so called "*satisfaction-performance loop*" [3]. Additionally, the effect of organizational climate on their job satisfaction had the biggest coefficient path score, suggesting that job satisfaction was importantly influenced by organizational climate. The finding of this study also indicated that the highest coefficient path score that determined lecturers' commitment to their university was related to conscientiousness, followed by agreeableness and job satisfaction. The highest coefficient path score of conscientiousness also implied that lecturers at the research site met the requirements for becoming professional lecturers as mandated by the teacher and lecturer law of No. 14 in 2005.

In this study, it was also found that the significant effect of agreeableness indicated that lecturers' commitment to the university was impacted by the fit between lecturer's personality and their job. This finding supports what the literature says that the fit between personality and job has a significant correlation with job satisfaction and organizational commitment Hambleton, Kalliath, & Taylor (2000).

The findings of the current study indicated that personal and environmental factors affect organizational commitment of lecturers at one public university in Jambi. The results of this study have implied that personal and environmental factors could become a trigger to improve the quality of the higher education through improving lecturers' commitment to where they work. Lecturers' commitment is very needed to achieve the academic, social, and cultural purposes of higher

education, in particular, in the era of globalization because competition among universities in Indonesia and in the world is very tight. The increase and improvement of lecturers' commitment through the improvement of conscientiousness and agreeableness traits and organizational climate and job satisfaction should be well-planned and well-focused. In other words, in the future, human development processes should not only provide young people with knowledge and experience, but also provide them with the theories and practices on the importance of the sense of belonging (commitment) to where they will work.

#### **4. Conclusion**

The purposes of this research were to verify the personality traits consisting of conscientiousness and agreeableness as personal factors along with job satisfaction and organizational climate as the environmental factors affect organizational commitment and to compare the organizational commitment of lecturers at one public university in Jambi. The findings of the study revealed that lecturers' organizational commitment was directly impacted by their conscientiousness, agreeableness, job satisfaction; meanwhile, the organizational climate indirectly influenced lecturers' organizational commitment at the research site. The findings of this study imply that lecturers' organizational commitment was significantly impacted by personal and environmental factors.

The findings of this study could be the sort of evidence necessary for university, faculty, and department leaders for providing support to improve lecturers' organizational commitment at their respective area of authorities. Also, it could be utilized by the university, faculty, and department leaders to provide programs and policies for the lecturers for anticipating the challenges and problems related to lecturers' organizational commitment. Additionally, related to the limitations of the study, despite the fact this study will potentially contribute the sort of evidence necessary for university, faculty, and department leaders for providing support to improve lecturers' organizational commitment at their respective area of authorities, participants in this study may not be representative of Indonesian lecturers. There may be differences of lecturers' organizational commitment experienced by Indonesian lecturers from one department to other departments and from one university to other universities. Future research may include a larger sample of Indonesian lecturers from different departments or universities. Additionally, in this study, only two personality traits were examined due to logistic limitations; future research could include five personality traits to be researched quantitatively and qualitatively.

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# The Impact of Culture on Strategic Human Resource Management In Determining the Corporate Sustainability

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## Abstracts

Organizational culture concept has become popular within the sustainability of literature as it provides an access point for the fields of Human Resources and Organizational Behavior to enter as an explanation for organization's sustainability performance. However, there is little theoretical underpinning what actually constitutes a sustainability-oriented organizational culture. Furthermore, there exist only generic prescriptions on how organizations can realize and implement sustainability-oriented culture change. In order to examine the potential link between the cultural orientation of an organization and the pursuit of corporate sustainability principles, we first review and explore the concept of corporate culture, SHRM, RBT and finally the corporate sustainability. We argue that although this concept has received much attention in recent organizational and management studies, there is still little insight into how the adoption of corporate sustainability practices can be achieved inside the organizations.

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**Keywords:** Culture, Strategic Human Resource Management, Resource Based View, and Corporate Sustainability.

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## 1. INTRODUCTION

There have been many written espousing principles of sustainable development and the need for corporations to pursue sustainability practices (e.g., Sharma, 2003). In recent years, many organizations have introduced or changed policies, products and/or processes to address pollution, minimize resource use, and to improve community and stakeholder relations (Crane, 2000). Several scholars, however, maintain that these changes are insufficient as they are only superficial and not conducive to the formation of sustainable organizations and industries (Hart & Milstein, 1999; Senge & Carstedt, 2001). They argue that in order to fully respond to environmental and social challenges, organizations will have to undergo significant cultural change and transformation (Post & Altman, 1994; Stead & Stead, 1992; Welford, 1995). The central idea is that organizations will have to develop a sustainability-oriented organizational culture when moving towards corporate sustainability (Crane, 1995).

The organizational culture concept has become popular within the sustainability of literature as it provides an access point for the fields of Human Resources and Organizational Behavior to enter as an explanation for the organization's sustainability performance. However, there is little theoretical underpinning on what actually constitutes a sustainability-oriented organizational culture. Furthermore, there exist only generic prescriptions on how organizations can realize and implement sustainability-oriented culture change (e.g., Halme, 1997). Extant models and theories on sustainability-oriented culture changes have been criticized for an over-reliance on simplified formulae for cultural changes, and a lack of insight into how culture changes might occur (Harris & Crane, 2002; Newton & Harte, 1997). These models do not specifically address how the culture changes should be initiated, monitored and become subject to managerial intervention and control.

In order to examine the potential link between the cultural orientation of an organization and the pursuit of corporate sustainability principles, we first review and explore the concept of corporate culture, SHRM, RBT and finally the

corporate sustainability. We argue that although this concept has received much attention in recent organizational and management studies, there is still little insight into how the adoption of corporate sustainability practices can be achieved inside the organizations. Furthermore, we outline how the corporate culture, SHRM, RBT and corporate sustainability share similarities across various dimensions and provide a conceptual foundation for a more thorough analysis on sustainability-related performance outcome.

## 2. THE ROLE OF CULTURE IN DETERMINING PERFORMANCE OUTCOMES

‘Culture’ needs to be taken more seriously when improving effectiveness and performance in the company. This chapter is devoted to demonstrate the importance of this phenomenon of culture and to a critical review of (organizational) culture; in particular the role it plays in determining the organizational outcomes. Additionally, this chapter is also intended to expose the theories underpinning its conceptualization and investigation.

### 2.1. CULTURE AND PERFORMANCE

It has long been recognized that organizational culture plays a significant role in the performance outcomes. This recognition has been implicitly and explicitly expressed in several quarters, mainly in the mainstream organizational behavior and management literature (cf. Baker, 2002; Smith, 2003; Tharp, 2005). According to Smircich (1983) and Hatch (1993), the idea that business organizations have cultural quality that is relevant for performance was recognized as far back as the 1970s as evidenced by the publication in 1980 of Business Week with the cover story “Corporate culture: The hard-to-change values that spell success or failure” (Business Week, 1980 in Smircich (1983)). In particular, Deal and Kennedy (1982) and Peters and Waterman (1982) were instrumental in popularizing this notion that certain cultural orientations might lead to organizational effectiveness and strong performance. Others (cf. Ouchi, 1981; Schein, 1985; Kotter and Heskett, 1992; Alvesson, 2002; Smith, 2003) also made similar assertions, although many of these assertions were based only on anecdotal evidence, which rightly or wrongly was described as being selective (Denison and Mishra, 1995).

Empirical studies to confirm the relationships between culture and performance have been relatively limited, and generally not well received (Wilderom *et al.*, 2000). This, according to Denison and Mishra (1995), has been mainly as a result of the critique on the application of positivist approaches to the social sciences. Where such studies have been conducted (cf. Denison and Mishra, 1995), it has been found, for instance, that the cultural traits of involvement and adaptability were strong predictors of growth whilst consistency and mission were strong predictors of profitability. Christensen and Gordon (1999) and Wilderom *et al.* (2000) also catalogued other empirical studies uncovering similar relationships.

Beyond particular cultural orientations, it has also been noted by Deal and Kennedy (1982) and Kotter and Heskett (1992) that there are correlations between strong cultures and strong performance of some organizations. Here a strong culture is measured by the degree to which all sections of the organization buy the key aspects of the culture (Thompson, 1993). As a first step in this direction, it is necessary to understand this phenomenon of culture and how it comes to be so important in the performance outcomes.

### 2.2. THE PHENOMENON OF CULTURE

As pointed out in Ankrah and Proverbs (2004), considerable efforts have gone into attempts to develop a definitive interpretation of culture. However, this goal appears to have eluded the many researchers exploring this area. This situation can be attributed to various perspectives from which the concept of culture can be approached and to various theories underpinning these perspectives. The evidence of this is in the plethora of definitions available, with Kroeber and Kluckhohn (1952, in Bodley 1994) for instance reporting to have compiled a list of over 160 different definitions of culture. In many ways, the study of culture can be linked to the story of the six blind men and the elephant as narrated by Saxe (1963), and as used metaphorically by Roberts and Boyacigiller (1993) when they questioned whether the elephant (culture) that was too large or the researchers who were too blind. Whether the elephant (culture) is too large or the researcher too blind, the specific concept of culture a particular researcher adopts is an important matter as it influences the research questions asked, the problems investigated, the methods applied, and the interpretation of the results (Bodley, 1994). This implies that in undertaking any critical investigation into any aspect of culture, the researcher needs to define the perspective of culture being assumed and its underpinning theories in order to set the context within which the research can be considered as being valid.

### 2.2.1. An Overview of Culture

Barthorpe *et al.* (2000), in presenting an overview of culture, examines the evolution of the term and pointed to its initial historical association with the cultivation of land and production of crops, and breeding of animals. This perspective has gradually evolved to current views of culture as the totality of socially transmitted behavior patterns, arts, beliefs, institutions, and all other products of human work and thought (American Heritage Dictionary, 2000). Its modern definition of socially patterned human thought and behavior is attributed to renowned anthropologist Edward Tylor, who is believed to have firstly used the term in its true anthropological sense (Payne, 1996; Barthorpe *et al.*, 2000). Tylor's definition of culture is captured in Rooke (2001) as "that complex whole which includes knowledge, belief, art, morals, laws, custom, and any other capabilities and habits acquired by man as a member of society".

A cross-disciplinary definition of culture proposed in Hofstede (2001) is that culture is "transmitted and created content and patterns of values, ideas, and other symbolic-meaningful systems as factors in the shaping of human behavior and the artifacts produced through behavior." Another well-known definition takes culture to be patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts (Kroeber and Kluckhohn, 1978 in Hofstede, 2001). This definition is akin to Bodley's (1994) simplified representation of culture as "what people think, what they do, and the material products they produce." Hofstede (2001) also defines culture as "the collective programming of the mind that distinguishes the members of one group or category of people from another."

Culture acts like a template and shapes behavior and consciousness within a human society from generation to generation (Miraglia *et al.*, 1999). Essentially, it operates as a de-codifier (Serpell and Rodriguez, 2002), defining situations and words, and giving them new meaning. Culture exists in a constant state of change (Miraglia *et al.*, 1999), and this may to some extent account for the difficulty in defining it. The various perspectives and definitions notwithstanding, a number of themes are common to all the different interpretations which are fundamental to understanding culture are:

- 1) Culture is learned and shared;
- 2) Culture is determined by contextual factors, implying that it is peculiar only to the group to whom these factors apply;
- 3) The underlying basic problems are common and include relation to authority, concept of masculinity and femininity, and ways of dealing with conflicts; and
- 4) Culture shapes behavior and manifests in the form of values and practices.

Perhaps the most important theme of all is the universal recognition that such a phenomenon or concept as culture does indeed exist. According to Allaire and Firsirotu (1984), the various definitions fall into very well demarcated schools of thought on culture in anthropology with specific conceptual assumptions and approaches to cultural investigation. This implies that accepting a particular definition imposes a commitment to the specific conceptual and theoretical underpinnings of that definition and ways of studying culture.

### 2.2.2. Theories of Culture

Historically, the study of culture is rooted in the fields of anthropology and social anthropology. According to Hatch (1993) the cultural phenomena has been dealt with more out rightly by anthropologists than by any other group of scientists or scholars. It is therefore logical in studying this phenomenon, irrespective of the context, that the anthropological perspectives are examined.

Allaire and Firsirotu (1984) provide an insightful treatise on the diverse and complex theories that cultural anthropologists have proposed. The first distinction is between theories in which culture is seen as meshed into the social system (*sociocultural system*) and those in which culture is seen as an *ideational* system (a system of ideas) conceptually and analytically distinct from the social system (Allaire and Firsirotu, 1984). These theories are examined below.

#### 2.2.2.1. Culture as a Socio-Cultural System

Among those theorists who took a socio-cultural view of culture, Allaire and Firsirotu (1984) identify four schools of thought based on their notions of time. Two schools focus on the study of culture at particular points in time and space. The term *synchronic* is the functional and the functional structuralized schools of thought. In the functionalist school

championed by the likes of Malinowski, culture is seen as an instrumental apparatus by which a person is put in a better position to cope with the concrete specific problems faced in the effort to satisfy their needs. This presupposes that myths, institutions, and other manifestations of culture will exist only to the extent that they enable individual members of society to satisfy their individual needs. The commitment this need-grounded theory imposes on research is that it requires the researcher to focus on the individuals within the culture and their needs.

### **2.2.2.2. Culture as an Ideational System**

There are the *ideational theories*. Among the ideational theorists where the emphasis is on the cognitive, Keesing (1974) distinguishes three very different schools; the *cognitive*, *structuralized*, and *symbolic* schools. Allaire and Firsrotu (1984) also isolate a further fourth school of thought which is termed the *mutual equivalence* school. These four schools can be classified into two groups. For the first group, culture is located in the minds of the culture-bearers. There are three schools of thought within this group; the *cognitive*, *structuralize* and *mutual equivalence* schools.

The cognitive school views culture as a system of knowledge and of learned standards for perceiving, believing, evaluating and acting (Allaire and Firsrotu, 1984). Within this school, culture is clearly not considered to be a material phenomenon (Goodenough, 1961 in Keesing, 1974) or about patterns of recurring events (Goodenough, 2003). Rather, Goodenough (2003) defines it as: “*consisting of criteria for categorizing phenomena as meaningful, deciding what can be, deciding how one feels about things (preferences and values), deciding what to do about things, deciding how to go about doing things, and the skills needed to perform acceptably.*”

For the structuralized school, culture is made up of shared symbolic systems that are cumulative products of the mind, a reflection of unconscious processes of mind that underlies cultural manifestations (Allaire and Firsrotu, 1984). Here the essence of studying culture is to uncover those principles of mind that generate cultural elaborations like myths, art, kinship, and language (Keesing, 1974). Within the mutual equivalence school, culture is seen as a set of standardized cognitive processes which create general framework for the mutual prediction of behavior among individuals interacting in a social setting (Allaire and Firsrotu, 1984).

The second group considers culture to be made up of shared meanings and symbols. This group has the *symbolic* school of thought in which culture is seen in the “meanings and thinking’s shared by social actors” (Allaire and Firsrotu, 1984; Geertz, 2001). Here the focus is on examining shared codes of meaning (Keesing, 1974) or how people’s mental constructs guide their lives (Infoplease, 2005). In Keesing’s (1974) treatise on the theories of culture, this perspective, as well as the others, is elaborated at length. As emphasized in Keesing (1974), “culture does not have some true and sacred and eternal meaning [that theorists] are trying to discover”. What these various perspectives and theories have sought to do is to enable researchers address key anthropological questions summarized as: how have cultures developed and what forces have shaped them? How are cultures learned? How do shared symbolic systems transcend individual thought worlds? How different and unique are cultures? Do universal patterns underlie diversity? How is cultural description to be possible? The various theories offer alternative ways of investigating and addressing these questions. Indeed, whilst some researchers have advocated a synthesis of various theories to evolve a more holistic framework for understanding culture and its effects (cf. Allaire and Firsrotu, 1984), others have maintained that it is preferable to have even narrower conceptions of culture so that it includes less but reveals more (Hall and Neitz, 1993; Geetz 2001). This latter position is one with which this thesis concurs. This whole dilemma again is akin to the dilemma of investigating and describing the elephant (see Saxe, 1963).

### **2.2.3. Other Perspectives of Culture**

Beyond the theoretical or definitional differences that have been discussed above, the study of this phenomenon of culture can also be approached from a number of different perspectives. For instance, it can be approached from the levels at which the phenomenon is observed (Erez and Gati, 2004) or from a convergence or divergence perspective (Abu Bakar, 1998).

#### **2.2.3.1. The Levels of Culture**

Arguably, culture can be observed at a regional (Hofstede, 1984), national (Trompenaars and Hampden-Turner, 1997; Hofstede, 2001), industry (Riley and Clare-Brown, 2001), organizational (Peters and Waterman, 1982; Deal and Kennedy, 1982; Hampden-Turner, 1994; Handy, 1995; Hofstede, 1997) as well as at the occupational level (Root, 2002; Rameezdeen and Gunarathna, 2003; Ankrah and Langford, 2005). According to Hofstede (2001), the word culture can be

applied to any human collectivity or category such as an organization, a profession, an age group, an entire gender, or a family. What this means is that although culture is often portrayed as homogeneous, because of the existence of sub-groups within the wider collectivity, sub-cultures are likely to exist within the wider culture (Goodenough, 2003; Erez and Gati, 2004).

#### 2.2.3.2. Convergence or Divergence Perspective

Another set of perspectives, which is also reflected in culture research, is the convergence or divergence perspective (Abu Bakar, 1998) which focuses on finding commonalities or differences in cultural characteristics. Trompenaars and Hampden-Turner (1997) referred to a situation of ‘globalization’ (derived from globalization and localization). Along these same lines, Martin (1992) reports the integration, differentiation, and fragmentation perspectives in organizational culture research. These perspectives reflect the myriad of approaches that can be adopted in cultural studies and any such approaches adopted in research must be clearly identified and justified to avoid ambiguity and over-generalization. This will help clarify the appropriate approaches for this study.

### 2.3. CULTURE IN ORGANIZATIONS

That organizational culture (Schein, 1985; van den Berg & Wilderon, 2004) influences firm effectiveness is an assumption implicitly held by many managers and management researchers; however, few empirical studies have provided detailed insight into the relationship (Gregory, Harris, Armenakis & Shook, 2009). Carmelli and Briole (2007) and John (2006) have provided reviews of impact studies of organizational culture on a number of organizational variables. Ashkansay, Wilderom and Peterson (2004, 2010) provide a review on the measurement of organizational culture, measuring its components/constructs, and associating it with numerous components of organizational successes and changes. There are few studies connecting a reliable and predictive measure of organizational culture to implementation outcomes (van der Berg & Wilderon, 2004; Mallinger, Goodwin & O'hara, 2009).

As indicated previously, the construct of organizational culture was popularized by the publication of such articles as Peters and Waterman's (1982) '*In search of excellence*' and Deal and Kennedy's (1982) '*corporate cultures: the rites and rituals of corporate life*'. Before then, it was not considered important for organizational performance. However since these seminal publications, it has become an important issue in mainstream management (Smircich, 1983; Hatch, 1993; Barthope, 2002). In construction, it has only now begun, in the last two decades, to assume the importance it has in mainstream management. Organizations are widely regarded as society's *writ* small (Allaire and Firsrotu, 1984). As little societies, organizations are imbued with similar structures and systems as the wider society. It is within this context that Allaire and Firsrotu (1984) argue that the concept of culture in organizations takes significance. Like societies, organizations are unique and their individuality may be expressed in terms of their cultures, much like the uniqueness of an individual which is often expressed in their personalities (Eldridge and Crombie, 1974; Allaire and Firsrotu, 1984; McNamara, 1999). According to Deal and Kennedy (1982), every organization has a culture, even if this culture is fragmented and difficult to read. Evidence of such culture is also more explicitly reported in Thomas *et al.* (2002) who examines “project culture” and its impact on quality outcomes, and in Dainty *et al.* (2002) who examines its impact on women in the construction sites – referring to a “site culture.” Regardless of the label used in the construction domain, organizational culture is the concept of relevance and it is important to understand how it operates. Like the generic concept of culture, various organizational behavior theorists have different views on an appropriate definition for this phenomenon. This is probably because as indicated in Smircich (1983) the concept of culture has been borrowed from anthropology where, as shown from the previous section, no consensus on its meanings exists. Schneider (2000) describes this as the problem of culture – being almost anything and thus being everything depending on who is conducting the specific piece of research. A loose definition of organizational culture has been presented as the way we do things around here to succeed (Schneider, 2000). More formally, it is defined as a pattern of shared basic assumptions that is learned by a group within an organizational setting through solving its problems of external adaptation and internal integration, which have worked well enough. It is also considered valid and is taught to new members as the correct way to perceive, think, and feel in relation to particular problems (Schein, 1985). Eldridge and Crombie (1974) define it as the unique configuration of norms, values, beliefs, ways of behaving and so on that characterize the manner in which groups and individuals combine to get things done. Hofstede (1997) also defines it as the collective mental programming that distinguishes the members of one organization from another. McNamara (1999) argues that organizational culture comprises of the assumptions, values, norms and tangible

signs (artifacts) of organization members and their behaviors, with new members of an organization, consciously or unconsciously, who soon come to sense the particular culture of the organization just as they would another person. It is an organization's way of behaving, identifying, pattern of dynamic relationships, 'reality', or genetic code, and it has everything to do with the implementation of management ideas and how success is actually achieved (Schneider, 2000). It is often based on one or more philosophies related to the various stakeholders (Thompson, 1993), and is learned by new members through a process of socialization. It can also be defined as a set of elements of an organization that determines its way of acting, being, decision-making, communicating and others (Serpell and Rodriguez, 2002).

A dilemma, similar to whether one ought to conceive culture as an ideational or socio-cultural system, is when trying to understand its operation in organizations: whether culture is something that an organization '*is*' or something that an organization '*has*' (Smircich, 1983; Ashkanasy *et al.*, 2000). Whilst some theorists like Schein (1985) have favored the former conception of organizational culture where culture is seen as something an organization is, or as put by Smircich (1983) as a "*root metaphor*", it is clear from the literature that most researchers prefer to see it as something that the organization has (cf. Deal and Kennedy, 1982; Peters and Waterman, 1982), a *variable* (Smircich, 1983), or as put by Hofstede *et al.* (1993) "...an assumed characteristic of an entire organization". When perceived this way, it can be presented as another variable that can be managed, controlled or manipulated by the organization to achieve particular ends. This perspective has proved to be particularly attractive for organizational behavior researchers and managers alike (Smircich, 1983), because it potentially offers another tool in the management arsenal for influencing the course of organizations. Smircich (*ibid*) identifies two main strands of organizational research which have embraced this conception of organizational culture; these are the cross-cultural or comparative management strand and the corporate culture strand. Although this perspective can be criticized for reducing the concept of culture to just another management fad, its utility in helping to describe and make sense of the organizational experience is unquestionable. As can be seen from Schein's (1985) definition, organizational culture is rooted in the basic and universally shared problems (Schein, 1985; Hofstede, 2001), dilemmas (Trompenaars and Hampden-Turner, 1999) or contradictions (Quinn, 1988) which all groups or organizations have to deal with. Efforts made by the group to resolve these problems often yield solutions that are reliable and repeatable, and reflect the groups underlying cultural paradigm (Schein, 1985). Groups of people are faced with the same fundamental problems, but it is the unique solutions they find for these problems that sets them apart from each other, and is perceived as their culture (Hofstede, 2001). From the anthropological view of the culture discussed previously, this perspective clearly sits very comfortably with the socio-cultural schools of thought, in particular the functionalist and ecological-adaptationist theories of culture in which the environmental or situational contexts are emphasized, although unlike the functionalist view, organizational culture is not about the individual or their specific individual needs. Again, organizational culture from the definitions examined is about basic assumptions (Schein, 1985; McNamara, 1999), values and norms (Eldridge and Crombie, 1974; McNamara, 1999), beliefs (Eldridge and Crombie, 1974), and mental programmers (Hofstede, 1997). These reflect an acceptance of the cognitive or, more generally, the ideational aspects that anthropologists like Geertz (2001) and Goodenough (2003) have offered. But organizational culture is also about artifacts (McNamara, 1999), ways of behaving (Eldridge and Crombie, 1974; Mullins, 2005), and how things are done (Schneider, 2000), which is again in the realm of the socio-cultural.

Bringing these perspectives together, it is reasonable to propose that *organizational culture* is that unique configuration of solutions – collectively evolved by organizational members – which an organization and its members adopt in dealing with various organizational problems. The specific solutions chosen by an organization represent "preferred" or "dominant" (Trompenaars and Hampden-Turner, 1999) behaviors and value orientations, and are the manifestation of the organization's culture.

Organizational climate can therefore generally be viewed as just an older term for organizational culture (Hofstede *et al.*, 1993). The relationship between these two terms is however slightly more complex than that. In studies of climate, the emphasis is on current state of organizations and the cognitive aspects – attitudes and perceptions– of individual organizational members. Organizational culture has a much deeper remit, as can be seen from the preceding discussions. Climate has been described as an artifact of culture (Schein, 2000). Payne (2000) even argues that it is possible to claim that climate is a way of measuring culture to the extent that it provides a useful generalizable (although less accurate and specific) description of an organization that is comparable with other organizations. Hofstede *et al.* (1993) see climate as being a short-term state and culture a longer-term state of an organization. In an exposition of the relationships between the culture and climate paradigms, Denison (1996) concludes that the two research traditions should be viewed as differences in

interpretation rather than differences in the phenomenon. It is therefore safe to agree with Hofstede *et al.* (1993) that organizational climate and culture are broadly complimentary constructs.

### **2.3.1. Importance of Culture**

The culture that exists within an organization is important for a number of reasons. According to Thompson (1993) and also Kotter and Heskett (1992), for an organization to be effective, congruence must exist between the organization's values, its resources, and the environment. Indeed it is common to find references to culture as an obstacle to change and problem resolution (Bate, 1984). The culture within the organization reflects in the way that people perform tasks, set objectives and administer the necessary resources to achieve these objectives (Thompson, 1993). It also affects the way people make decisions, think, feel and act in response to the opportunities and threats affecting the organization (Thompson, 1993).

The fit between cultural characteristics and management practices is considered to be another important factor in the successful implementation of management practices (Erez and Gati, 2004). According to Mullins (1993), a strong culture is crucial for successful management. It is noted in Deal and Kennedy (1982) that a strong culture sets out the system of informal rules which determines how people are to behave most of the time. A strong, unique, and appropriate corporate culture, in the view of Tharp (2005), has the ability to:

- 1) Reduce uncertainty by creating a common way to interpret events and issues;
- 2) Create a sense of order in that members know what is expected;
- 3) Create a sense of continuity;
- 4) Provide a common identity and a unity of commitment; and
- 5) Provide a vision of the future around which the company can rally.

Tharp (2005) also notes that organizational culture is now understood as an asset that should be managed and that can be leveraged in support of company goals. This is clearly in line with the school of thought that considers culture to be a *variable* or something the organization has. For Schein (2000), where culture matters most is in its impacts on the 'hard' stuff like strategy and structure. An existing culture tends to constrain and direct management behavior, which subsequently affects overall performance through the mechanism of day-to-day practices such as decision-making, problem solving, and strategy formulation (Christensen and Gordon, 1999). Svensson and Wood (2003) also speak of the 'softer' aspects like business ethics which are a function of culture. It manifests in folkways, mores, and the ideology to which organization members defer, as well as in the strategic choices made by the organization as a whole (Eldridge and Crombie, 1974). The *choices* organizational members make will be contingent on their culture. As argued earlier, organizations are communities of people with a mission, and each organization has its own core culture, character, nature and identity. These basic characteristics are so fundamental and deep in hierarchy that they tend to be much more powerful than business processes, financial systems, business strategy, marketing plans, team behavior, and corporate governance (Schneider, 2000). Culture defines appropriate behavior, motivates individuals and asserts solutions where there is ambiguity. It governs the way a company processes information, its internal relations and its values (Hampden-Turner, 1994), and functions at all levels from the subconscious to the visible. Organizational culture is also believed to influence the success or otherwise of strategy, mergers, acquisitions and diversifications, integration of new technologies, meetings and communications in face-to-face relationships, and socialization (Deal and Kennedy, 1982; Peters and Waterman, 1982; Graves, 1986; Thompson, 1993; Mullins, 2005). It also accounts somewhat for the existence of inter-group comparison, competition and conflict, and the productivity of the organization (Schein, 1985). These views emphasize the important role of culture and provide further support for the perception that culture does have an impact on performance.

### **2.3.2. Composition of Culture**

As demonstrated in the discussions so far, culture manifests in a number of ways from the invisible and sometimes unconscious to very visible and tangible manifestations. The invisible aspects comprise values, beliefs and underlying assumptions (Schein, 1985; Bass, 1990; Hofstede, 2001). The visible aspects comprise artifacts, creations and behavior norms (Schein, 1985) or symbols, heroes and rituals (Hofstede, 2001). Bass (1990) provides a more comprehensive list of these tangible aspects. These visible and tangible layers have been collectively referred to as '*practices*' in Hofstede *et al.* (1993) and Ankrah *et al.* (2005c). Hofstede (1997) represents these layers of culture by an onion diagram (Figure 3.2) with

the core represented by the values and underlying basic assumptions, and the outer skins consisting of rituals, heroes and symbols of the organization (Hofstede, 1997).

In many past investigations, the emphasis has been on values and basic assumptions (Ankrah *et al.*, 2005c). Although values and basic assumptions are critical aspects of organizational culture, it has been empirically shown that organizations show more differences in their practices than in their values (Hofstede *et al.*, 1990; Hofstede, 1997; van den Berg and Wilderom, 2004). As expressed by van den Berg and Wilderom (2004), organizational culture can be better defined by organizational practices, and as a result can be derived from existing practices within an organization, department, or work unit. Smith (2000) also argues for this perspective by asserting that the conventional view of culture, which centers on notions of shared values and beliefs is inadequate, instead is calling for a strongly operational perspective on organizational culture “as embodied in the organization’s structures, mechanisms and practices.” These represent culture in action and are more credible reflections of the organization’s culture than statements of values and beliefs which may be out of step with culture as implemented (Smith, 2000).

Taken together, these arguments lead to the conclusion of Christensen and Gordon (1999) that consistent and widespread practices are reflections of organizational culture. Approaching culture through the study of organizational practices is advantageous because practices are more readily observable and measurable and can thus be compared across companies and can be directly related to individual and organizational performances (Christensen and Gordon, 1999). This approach is also consistent with Fellows and Lui (2000) and Wilson (1999) who argue that behavior provides the active and dynamic expressions of culture and therefore provides data through which culture may be studied.

### **2.3.3. Diagnosing Culture**

Hampden-Turner (1994) and Denison and Mishra (1995) have argued that if necessary and within certain limits, organizational culture is measurable and describable. Diagnoses in this regard may be classified as being either qualitative or quantitative.

#### **2.3.3.1. Qualitative Approaches to Diagnosing Culture**

Qualitative methods have been the traditional approach adopted in classical anthropological studies of culture which have sought to describe as empathetically and as comprehensively as possible why and how members of the culture go about their business. They employ ethno methodological methods which generally involve protracted periods of living within the group and gather data from within by interacting with people in as natural a manner as possible and by observing the behavior of the subjects unobtrusively (Columbia Encyclopedia, 2005), and where appropriate, by the analysis of documents. They are fundamentally interpretive (Geertz, 2001). Schein (1985) prescribes one such method, referred to as “clinical iterative” interviewing, for assessing organizational cultures. Such ethno methodological studies offer a very practical way of assessing organizational culture and allow in-depth analysis to be undertaken. They enable the researcher to capture very comprehensively, the ‘language’ and ‘meanings’ of the organization with minimal bias on the outcome of the investigation. Such studies inevitably raise, as pointed out by Hofstede (1997), questions of reliability (would another observer have perceived the same phenomena?) especially as the point of reference is always the researcher’s own culture and general questions (how does this case help to understand other cases?). Whilst ethno methodological approaches are useful in the discovery of values and underlying assumptions of people (the essence of culture), it has been shown that these values and underlying assumptions are insensitive to differences between organizations within the same national culture (Hofstede *et al.*, 1993; Delobbe *et al.*, 2002). Moreover such aspects, which frequently exist at an unconscious level, are difficult to quantify (Cooper, 1998; Columbia Encyclopedia, 2005). Although the methodology may be appropriate for the bespoke diagnosis of the culture of an individual organization, it offers little help in comparative studies as the parameters vary from organization to organization. It also has the disadvantage of being very time intensive, making its application in research constrained by time considerations, impractical. Although anthropological researchers have favored such qualitative methodologies, these shortcomings have led to the pursuit of more quantitative assessments of culture involving the use of questionnaire surveys.

#### **2.3.3.2. Quantitative Approaches to Diagnosing Culture**

Quantitative approaches rely on ‘hard’ data and Hofstede (1997) describes such studies as “few and far between and not necessarily very convincing.” Such studies have the advantage of reliability (independence of data from the

researcher), and stability of the instrument over time, thus allowing the pursuit of longitudinal studies if necessary (Hofstede, 1997). As culture is a ‘soft’ characteristic, the problem this poses is the extent to which culture constructions can be ‘hardened’ to provide empirical referents that can be measured. It has been argued that one way to assess it is through the perceptions of individuals who function within the culture (Hofstede *et al.*, 1993). Several examples exist of efforts that have been made to operational constructs of organizational culture to facilitate an empirical assessment with the aim of giving a describable sense of the culture of an organization (cf. Hofstede *et al.*, 1993; Cooke and Szumal, 2000; Ashkanasy *et al.*, 2000).

An assessment of constructs of culture requires the identification of aspects important to culture just as an assessment of forces will consider such aspects as magnitude and direction (Hofstede, 2001). These aspects are referred to as *dimensions* of culture, and ‘hardening’ the construct of organizational culture involves the identification of these dimensions of organizational culture and developing empirical referents around these dimensions that can be measured.

### **3. STRATEGIC HUMAN RESOURCE MANAGEMENT**

Wright and McMahan (1992) define strategic human resource management as “the pattern of planned human resource deployments and activities intended to enable the firm to achieve its goals” (1992, p. 298). There are two assumptions implied in this definition. First, organizations are able to impact firm level outcomes through their human resource management and second, it is the combination or system of HRM activities working in concert rather than single practices that define the ability of HRM to impact the firm at a strategic level.

Although there has been some criticism, past and emerging research in SHRM indicate that human resource management does indeed have an impact on firm as well as other levels of outcomes. An increasing number of studies have found significant relationships between various measures of human resource management and performance. Measures of HRM that have been used in these studies include: high performance and high involvement work systems (Huselid, 1995; Batt, 2002; Arthur 1994), HR orientation (Snell & Youndt, 1995; Welbourne & Cyr, 1999), and work life balance: (Perry-Smith & Blum, 2000; Konrad & Mangel, 2000) and single HR practices: (Shaw, Gupta, & Delery, 2002; Gerhart & Milkovich, 1990). Global competition, technological advancements, shortening of the business cycle as well as the shift from a manufacturing to a knowledge based economy have all influenced the business community in its search for sources of sustained competitive advantage (Dyer & Reeves, 1995). These changes put pressure on organizations to find new sources of competitive advantage. Employees and the systems of practices that are set up to manage them are increasingly seen as a source of this competitive advantage (Wright, Dunford, & Snell, 2001).

Historically, the field of human resource management has been concerned with the study of specific HR functional areas often categorized as selection, training, appraisal and compensation by the field of industrial and organizational psychology (Boxall & Purcell 2001). Past research involves the study of these specific HR functional areas as means and ends within themselves. For example, training was studied in isolation from other functions with an emphasis on the inputs processes and outputs or outcomes specific to the training function. Not much research attention was given to how training might work in combination with other HRM functions such as compensation or selection or how individual level HR functions might impact firm level performance. This focus on specific HR functional areas lead to knowledge about specific HR functions evolving in isolation from each other without much coordination between different functional areas (Wright & McManan, 1992). The rise of the concept of strategy and strategic management (Miles & Snow, 1984, Porter, 1985) creates an increased interest in how firms can position themselves strategically to compete. This was followed closely by an increased interest in how HRM might contribute to that process (Wright & McManan, 1992).

Initial studies addressing HRM and its relationship to business strategies continue to focus on specific HRM functional areas such as compensation and its individual impact on the accomplishment of business strategy. The findings from these initial studies suggest that HRM functions such as training or compensation can be aligned with firm strategy and proper alignment between these individual HRM functional areas and strategy contributed to sustainable competitive advantages (Schuler & Jackson, 1987; Miles & Snow, 1984). Russel, Terborg, and Powers (1985) for example, examine human resource training at an organizational level and link the training to organizational performance. While this research address the issue of individual HR practices and performance as well as aligning specific HR practices with strategy, it does not address the alignment of individual HR practices with each other or the impact of the entire HRM system on firm performance. With the advent of more internally focused strategic theories such as the resource based view (RBV), the practice of linking separate HR functions to the firm strategy evolves into a more integrated view of how HRM as a system

impacting firm level strategies which in turn impact performance. SHRM becomes more a question of how bundles of HRM practices or philosophies and the HR function as a whole contribute to the accomplishment of firm strategies at a system level. This opens the door for research seeking to understand the strategic nature of human resources and human resource systems (Wright, Dunford & Snell, 2001).

### **3.1. SHRM AND THE RESOURCE BASED VIEW**

Although multiple theories have been used to explain the relationship between HRM and performance outcomes (Wright & McMahan, 1992), the predominant theory currently used by researchers studying SHRM is the resource based view (Wright, Dunford, & Snell, 2001; Delery, 1998). The resource based view proposes that competitive advantage comes from the internal resources that it possessed by an organization (Wernerfelt, 1984; Barney, 1991). The idea that internal resources of a firm can lead to competitive advantage is a significant departure from previous views of strategy which focuses on the external environment and such factors as industry, customers, and competitors (Miles and Snow 1984; Porter 1985). The RBV provides a theoretical explanation of how the human resources of a firm can in fact contribute to performance and competitive advantage.

Though others had addressed the concept of the RBV previously, Barney (1991) solidified its application to SHRM research by outlining how firm resources contribute to the sustained competitive advantage of the firm. Resources that are valuable, rare, inimitable and non-substitutable will lead to competitive advantage. To the extent that the human resources within a firm meet these criteria, they will contribute to the competitive advantage of the firm by providing the firm with a valuable resource not easily replicated by competitors.

This raises the question as to which aspect of the human resources within a firm constitutes a resource. Wright, McMahan, and McWilliams (1994) argue that it is the actual human resources or human capital of a firm that constitute the resource leading to competitive advantage. From their view, HR practices or HR systems could easily be duplicated (imitated) by other firms and only the knowledge skills and abilities possessed by individuals within a firm would meet the criteria outlined by Barney (1991). Lado and Wilson (1994) on the other hand take an alternative point of view arguing that HR practices combined into an overall HR system can be unique and difficult to imitate and constitute a resource meeting the conditions necessary for sustained competitive advantage. While both views seem to be accepted in the literature, most SHRM researchers using RBV as their theoretical frameworks that have focused on the HR system or overarching HR philosophy as a resource functioning to develop the human capital of the firm (Boxall, 1998).

In addressing the criticisms of Wright, McMahan and McWilliams (1994) say that HRM practices or systems can be easily duplicated by competitors and thus cannot be a source of sustained competitive advantage. Becker and Gerhart (1996) outline two different reasons why HR systems of successful firms cannot be easily duplicated. First, causal ambiguity implies that the exact manner in which human resource management contributes to the competitive advantage of the firm is either unknown or sufficiently ambiguous so as to be difficult or impossible to imitate.

According to Becker and Gerhart (1996), the ability to replicate a successful HR system would require an understanding of how all of the elements of this complex system interact, an understanding which is still elusive to HR researchers and practitioners alike. Second, the path dependency of HR systems makes their understanding and replication extremely difficult if not impossible. HR systems are developed over time. Take for example a single HR practice such as the use of a variable pay system for management compensation. The development and implementation of this single HR practice takes place over time including time to solicit management input and buy-in, work out discrepancies, and aligning the practice with current strategies as well as firm culture and needs. The end result would be a practice that reflects the philosophies and culture of the firm and its management created to solve the specific needs of the organization. Compound that single HR practice with a whole system of practices each with its own history and evolution specific to a particular firm, its philosophies and current situation and you have an HR system that cannot be bought or easily replicated without a significant investment in both time and financial resources. The RBV with its focus on the internal resources possessed by a firm has given the field a theoretical understanding of why human resource systems might lead to sustained competitive advantage. The application of the RBV in SHRM research has allowed the SHRM field to move away from individual HR functional areas and practices to focus more on the HR system and how this system of HR practices or philosophies contribute to competitive advantage. This in turn has opened the door for further development of the field by answering questions about HRM and firm performance such as whether the relationship between HRM and performance is causal and

if so, by what mechanisms does HR lead to performance or what variables might moderate that relationship? These questions built around the RBV are those that the field of SHRM is currently attempting to address.

#### **4. CORPORATE SUSTAINABILITY**

The concept of corporate sustainability originates from the broader concept of sustainability, which itself is shaped through a number of political, public and academic influences over time (Kidd, 1992). These influences include the conservation movement of the early twentieth century, the environmental and counter technology movements in the 1960s and 1970s (e.g., Ben-David, 1975; Farvar & Milton, 1972), the “no growth” philosophy which emerged in the 1970s (e.g., Daly, 1974; Meadows, Meadows, Randers, & Behrens, 1972), as well as contributions from the discipline of ecology (e.g., Riddell, 1981). During the 1980s, social issues became more prominent, including human rights, the quality of life as well as poverty, especially in less developed countries (Sharma & Arago’ n-Correa, 2005). Public pressure increase for new approaches to environment and development. It occurs in order to integrate environmental protection with a development that would ultimately lead to an alleviation of poverty. The concept of sustainability becomes known on a global level through the report of Our Common Future by the World Commission on Environment and Development (WCED, 1987), an entity of the United Nations, also known as the Brundtland Commission. The WCED relates sustainability not only to environmental integrity and social equity, but also to corporations and economic prosperity by coining the term sustainable development, defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p. 43). The 1992 Earth Summit in Rio de Janeiro resulted in widespread acceptance of this definition by business leaders, politicians and NGOs (Dyllick & Hockerts, 2002). For the organizations, it implies the challenge to simultaneously improve social and human welfare while reducing their ecological impact and ensuring the effective achievement of organizational objectives (Sharma, 2003). Based on the WCED definition, as well as on influences from the strategy and management literature, a variety of subsequent definitions on sustainability in relation to organizations emerge, also referred to as corporate sustainability. These definitions vary on the degree to which they classify corporate sustainability as either mainly ecological concern (Shrivastava, 1995) or as social responsibility of an organization (Carroll, 1999), or broaden the concept of corporate sustainability into integrated corporate economic activities with the organizational concern on the natural and the social environment (Dunphy, Griffiths, & Benn, 2003; Dyllick & Hockerts, 2002; van Marrewijk, 2003). Some scholars also use the term “corporate social responsibility” to describe the integration of social, environmental, and economic concerns into an organization’s culture, decision-making, strategy, and operations (e.g., Berger, Cunningham, & Drumwright, 2007). The resulting variety of definitions has created confusion and impediments in the pursuit and implementation of corporate sustainability, as organizational members find it difficult to interpret and operationalize the term (Faber, Jorna, & van Engelen, 2005). While there is not only disagreement concerning the concept of corporate sustainability, there is also a lack of clarity on how to best implement corporate sustainability in organizational practice (Daily & Huang, 2001). Past research has mainly focused on the overall adoption of sustainability practices by firms and related classifications schemes (e.g., Azzone & Bertele’, 1994; Dunphy et al., 2003; Hunt & Auster, 1990). The primary drivers behind this adoption process are thought to be the factors external to the organization, such as environmental regulation and standards set by governments, or pressures resulting from customers groups and the community. The organization itself, however, is largely treated as a “black box” (Howard-Grenville, 2006).

Several recent studies have pointed to internal organizational pressures for the adoption of sustainability practices, such as staff turnover due to decreasing firm loyalty and workplace satisfaction (Wilkinson, Hill, & Gollan, 2001). These studies identify internal organizational factors, such as top management support, human resource management, environmental training, employee empowerment, teamwork, and reward systems as important aspects for achieving corporate sustainability (Daily & Huang, 2001; Wilkinson et al., 2001). Other authors argue that more far-reaching changes in employee values and underlying assumptions are required for organizations to truly achieve corporate sustainability (Crane, 2000; Purser, 1994). Together, these studies suggest that corporate sustainability is a multifaceted concept that requires organizational change and adaptation on different levels. On the surface level, the adoption of corporate sustainability principles becomes visible through technical solutions, the publication of corporate sustainability reports, the integration of sustainability measures in employee performance evaluation, or employee training. This provides the context for the adoption of sustainability practices (Dunphy et al., 2003). On the value level, the adoption of corporate sustainability principles takes place through changes in employees’ values and beliefs towards more ethical and more responsible values (Crane, 2000). On the underlying level, the adoption of corporate sustainability principles requires a change in core

assumptions regarding the interdependence of human and ecological systems (Purser, 1994). The different levels of corporate sustainability suggest a parallel to the different dimensions of organizational culture (Schein, 2004): the observable culture (the visible organizational structure, processes and behaviors), espoused values (strategies, goals and philosophies), and underlying assumptions (unconscious beliefs and perceptions which form the ultimate source of values and action).

## **5. THE COMPLEXITY UNDERSTANDING OF CULTURAL ORIENTATION, SHRM AND CORPORATE SUSTAINABILITY**

This paper seeks to examine what constitutes a sustainability oriented culture by referring back to the traditional concept of organizational culture and SHRM. Specifically, it is examined whether there is a link between the organizations that emphasize a certain organizational culture type. Therefore, it can be assumed that different organizational culture types influence how employees understand their performance outcome and corporate sustainability (Linnenluecke et al., in press). The focus on formalization suggests that there are cognitive and motivational limitations of individuals which constrain employees' choices and action within the organization (Scott, 2003), and restrict the understanding and enactment of sustainability (Griffiths & Petrick, 2001; Linnenluecke et al., in press; Post & Altman, 1994; Ramus, 2005).

Another issue in testing the relationship between HRM and firm performance involves the complexity of the relationship between HRM and performance. Performance is a difficult concept to understand and involves multiple drivers and complex relationships. It is likely that the relationship between HRM and performance is influenced by many other factors. Researchers should focus on understanding when HRM contributes to a performance or under what conditions HRM might contribute more or less to the performance of a firm. Contingency or moderation models argue that the relationship is likely contingent on various other variables and situations (Delery & Doty, 1996). Some research have studied variables that might moderate the relationship between HRM and performance with strategy being the most common contingency tested (Wai-Kwong, Priem & Cycyota, 2001; Veliyath & Shortell, 1993).

In order to understand the relationship between HRM and sustained competitive advantage or performance, a brief discussion of measurement is necessary. While a complete discussion of measurement in SHRM is beyond the scope of this paper, we will identify the general frameworks that have been used to measure HRM and performance variables and the key measurement issues that have limited our understanding of the relationship between HRM and competitive advantage or performance. For a more thorough discussion of measurement issues see Rogers and Wright (1998).

Following Lado and Wilson (1994), we argue that it is the HR system made up of practices, policies, and philosophies that constitute a resource for the firm. This view is consistent with the prior research addressing the relationship between HRM and performance (Rogers & Wright, 1998). The HRM system facilitates the acquisition, development and motivation of human capital and, when combined within the complex firm environment, creates unique resources for the firm (Wright, Dunford & Snell, 2001). A recent review of the literature found that out of 73 studies empirically testing the relationship between HRM and organizational outcomes, all of these studies employed some measures of the HRM system as the independent variable as opposed to using direct measures of human capital (Wright, Gardner, Moynihan & Allen, 2005).

As can be seen from the discussion above, the impacts of HR on performance proposed by Dyer (1984) get progressively further from the actual HR function. HRM first impacts HR or personnel outcomes, which in turn impact operational outcomes, followed by financial and market level outcomes with these latter measures being removed from the actual HR practices by several levels. Although the most direct effect of HR practices on performance would be at the HR level, because of the strategic interest as well as difficulty in measurement, most of the research have focused on the financial and market levels of performance (Rogers & Wright, 1998, Dyer & Reeves, 1995). This complexity in measuring the HR impact on performance is especially apparent in large organizations where the distance between HR systems and financial measures of performance is greater, creating questions around the appropriate levels of analysis. In addition, increased complexity makes the understanding of the relationship much more difficult. Because of this complexity, researchers should focus on contexts where the distance between the HRM system and performance is shorter and levels of complexity are reduced, such as smaller business units of large organizations, departments within larger organizations or small businesses. Additional issues in Testing Relationships between HRM and Performance, in spite of the increased attention on HRM and its performance implications, is that there is no consensus on the best way to measure HRM or

competitive advantage (Becker & Gerhart, 1996; Rogers & Wright, 1998). In addition, the complexity of large organizations makes meaningful measurement of these variables difficult.

Imagine at one extreme, there exists a firm level measurement of both HRM and performance from a large organization. Regardless of any relationship discovered, it is difficult to imagine that those firm level measures have accounted for differences in product lines, geographies, leadership and other variations within that organization from both the HRM standpoint and the performance. In addition, the relationship itself is complex by nature. Even in the simplified model of the HRM to performance relationship outlined by Dyer (1984), a significant amount of complexity remains in understanding this relationship and factors, contextual, and others that might influence it. This complexity is only compounded when being addressed in a large organization where the distance between the different pieces of the relationship can be quite large.

Based on this discussion we propose that organizations dominated by an internal process culture will place greater emphasis on SHRM, economic performance, growth and long-term profitability in their pursuit of corporate sustainability (Peteraf, 1993; Porter, 1985). The major assumption behind this understanding of corporate sustainability is that the organization seeks to maximize the production of goods and services. While efficiency (i.e., the elimination of waste and redundancy) is valued in a hierarchical culture, it is defined as a simplification of products, services and processes in order to achieve cost reductions, maximize production, and pursue economic outcomes (Cameron & Quinn, 2006). From this point of view, it becomes imperative for management to expand consumption of the firm's products and services in order to increase profits (Eden, 1996) – any efficiency gains does not mean that the organization considers larger ecological and social systems within which it resides (Senge & Carstedt, 2001).

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## The Impact of Innovation and Information Communication Technology on Human Resources: A Review

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### Abstract

Literatures show that innovation does not solely deal with research and development, process and production issues, but they are matter of social aspects as described by the ‘the social network theory of innovation’ (which also known as the fifth evolution of innovation studies in term of technological development) as the consequences of the innovation nature which become more complex and systemic. Nevertheless, within the frame of this evolution, few studies have carefully noticed the significance of human resources roles from organization-level view as important determinant in the context of relation between social-based innovation and Information, and Communication Technology. From literature study and the method of this study, this paper suggests that emerging and profound Knowledge-Based Economy (KBE) approach, which inter-relates and interplays with social innovation, influences the organizational structure and process. From the structure of organization, the paper examines and compares between the role of agents within group level and organizations or firms level in term of how the appropriate learning processes are taking places within different systems building development stages. This comparison is then put into the conditions of building the systems of innovation. The study calls this approach “system building vs. appropriate learning”. From the process within internal organization, the paper examines appropriate learning processes taking place at the level of group and organization and the relevant consequences on the knowledge needs. The paper has some results for further discussion on (1) institutional shaping and re-shaping as well as development and re-development in relation to the human resources demand, and (2) the initial models of human resources role at group and organizational level within organization in the knowledge-based economy.

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### 1. Introduction

Recent studies of innovation show the systemic and complex nature dealing with the complex relations and

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interactions among agents of the system. The institutional settings of these relations and interactions are used in order to capture, diffuse, use, and produce knowledge as the core element of the innovation. The development of ICT as the fifth technological revolution, in term of Perez's work [1] opens unexplored interesting research works from innovation studies perspective.

The paper studies this unexplored interesting works, by studying the impact of ICT development and systems of innovation on human resources demand. The writer realizes that it is hard for this paper to cover the whole part of the system or greater part of the system. To examine the impact of ICT development and systems of innovation, the study compares the characters of system building process and the learning types of agents. This comparison is called "system building vs. appropriate learning". The paper discusses some preliminary results; some of them may become sources for further explorative research.

### 1.1. System of Innovation

The term of "innovation" has been the most spoken word in the 21st century from different fields of study, both theoretical and practical orientations, at all layers of organizations. Perez [1] studies this trend as the fifth development of technological revolution while Kotsemir & Meissner [2] described this trend to their work on the evolution of innovation model. The recent development of this study shows that innovation is systemic and complex in nature [3, 4, 5]. One of the approaches to deal with this systemic and complex nature of innovation is "systems of innovation". System of innovations study these characteristics [3, 6, 7].

Freeman [8] and Edquist [3] identified some important elements from the definition of systems of innovation; (1) agents, (2) institutions and or organizations, (3) the relation and interactions among agents and organizations, (4) the institutions that set and rule agents activities, and (5) knowledge acquiring, diffusing, distributing, producing, and using. The development of this system follows the concepts of path-dependent and therefore evolutionary development [3, 6], under the dynamic conditions of uncertainties, qualitative changes and irreversibility [9], while the performance of the system depends on the quality of its sub-systems that constitutes with trials and errors mechanism [10].

Agents that consist of government, academic organizations or universities, and firms or private organizations are the main elements of this system. Interactions between or among agents result in one's influence over others or in that ones are influenced by others. According to Smits and Kuhlmann [7], the level of interaction among agents may take place within intra-organization or inter-organizations. The characteristics of interactions or interplays among agents are context specific, which means that geographical characters and institutional settings considerably influence these relations [3]. This raises the importance of social consideration.

The institutional sets are "the rule of the game" of the relation and interactions among agents. In Smits' work [7], institutions can function as intermediary infrastructures or supporting infrastructures. As intermediary function, institution develops interface and exchange of knowledge between supply-side agent and demand-side agent, while supporting infrastructures are used to support both sides including intermediary infrastructure to the working of the system. The role of institution is "the striking characteristics of the innovation system approach" [3].

### 1.2. Knowledge-Based Economy

The main accepted features in the system of innovation approach that knowledge is the major factor in the economic growth and that "innovation processes are systemic by nature" [5] is the main basis of Knowledge-Based Economy (KBE) concept. The way knowledge is processed is the main concern of the system of innovation studies to the extent that these processes are complex: it involves many different heterogeneous agents from different levels within the organization [3], facing specific and context-based institutional settings in term of policies [4, 6, 11] and organizational structure [3], technological development and regimes [1].

This knowledge within the firm is in the form of codified or tacit knowledge [3, 4]. Some knowledge can be easily available to transfer, to translate, to use, and to re-produce and some others or tacit knowledge need special exchange mechanism. The process of knowledge transfer within the organization or inter-organizations is the main concern of policy-makers in order to be competitive or to develop their systems of innovation. In other terms, knowledge is classified as applied, technological or organizational knowledge [4], or is distinguished between "know-what", "know-how" and "know-why" [9].

Agents are the only system of innovation creators; innovation is characterized as the "man-made" [10]. Agents (from all supply- and demand sides, intermediary and supporting infrastructure) are the "repository of social knowledge" [11]. From selected studies of systems of innovation, they show that the role of agents as the central element of the systems [6, 11]. Most of these studies focus on (1) how the policy makers, or governments in the perspective of systems of innovation particularly on national level, develop a Knowledge-Oriented Policy, or KOP, [6, 12] in which the knowledge acquired and distributed is important, not just producing new knowledge production as in the case of Neo-Classical framework [13], and (2) where learning is the main process. An aspect of human resources requirement relates to skills,

competencies and personnel, to support the KOP framework especially emphasized by Cohendet and Mehyer-Krahmer (2005). They proposed the role of communities as the intermediary to their policy framework. Llrena and Schenk in another aspect shows the role of organizations, German Federal Ministry for Research and Technology (BMFT) and of Transport (BMV), in term of learning the two technologies which are a-synchronous. These two studies examine human resources from different layers; group levels in Cohendet and Mehyer-Krahmer and organization levels in Llrena and Schenk.

As mentioned above, learning is the main process in the knowledge-based policy paradigm and in the systems of innovation. All studies on systems of innovation put learning as the main process of knowledge management [2, 3, 5, 10, 12] and divide learning into learning by doing, learning by interacting, learning by using [3], learning on system levels [10] and learning by exploration and exploitation [12]. Both types of learning are described in the context on how policy in the systems of innovation frame is developed, transformed, and implemented. The question on where this learning occurs is not specified.

### **1.3. Information and Communication Technologies and Systems of Innovation (ICT): The Role and Relations**

Under the techno-economic paradigm, Perez [1] has shown that ICT development is the fifth technological revolution, in which this development shapes the previous technology regimes and further affects all aspects of life; social, political, economic, and technological. Perez [1] listed some features of this ICT development that creates new as well as redefines infrastructure such as world digital telecommunication, e-service basis, high-speed physical transport links. The key message of Perez's work on technological revolution is that the new technology, where during early phase of its life cycle or between the period of gestation and paradigm configuration, and which is supported by other emerging technologies, will "lead to massive replacement of one set of technologies by another" and involve "profound change in people, organizations and skills" [1].

In another point of view, Edquist [3] described that innovation process is not in isolation; other elements of the system play their roles in interlinked conditions. Technology development takes place in the form of cluster [12]. In this circumstance, ICT development influences the systems of innovation; the quantity and quality of agents interactions are increasing as the ICT shortens the time and space boundaries. The massive information pools as the basis of knowledge resources, responsive institutions to adapt and change, and the abilities of agents to conditions of more-interaction lead to more networks establishment, to massive information processing, and to face the fast changing institutional settings. One consequence of this influence is that the systems of innovation also influence the ICT development more rapidly. The relation between ICT development and the systems of innovation leads to a system dynamics condition in which there is a loop relation with feedback mechanisms that either reinforce or weaken the relation [14].

## **2. The Method: Human Resources Position Constitutes to Dynamic Relation of ICT Development and Systems of Innovation**

As mentioned above, the role of human resources to the knowledge management is important. This role, however, varies across different levels of organization; for example, group level and organization or management level. Meanwhile, in the context of systems of innovation characteristics, the knowledge processing significantly considers learning as the fundamental activities. (1) What are the agents' positions in the dynamic relation of ICT development and systems of innovation framework? (2) How are the learning processes undertaken by agents within different organization contexts? (3) Who have the critical roles within these learning processes? This paper tries to approach these questions.

This paper is a literature and exploitation study. The paper studies the recent selected literatures in the area of systems of innovation, KBE and knowledge management and policy. From this study, it suggests that, although the role of agents is specified as important and the learning is the critical process within the context of systems of innovation, no studies are covering together these system elements. The lack of this is reasonable since (1) the systems of innovation studies are more macro orientation, (2) and studies of KBE, knowledge management or policy are more on micro perspective such as focusing on organizational level (government or firms). Therefore, an exploitation in term of covering together both two elements (of agents and learning process) is the method to deal with the study's questions.

In order to discuss the possible answers to these questions mentioned above, this study compared the (1) way the systems of innovation was built, designed, and developed, with (2) the learning process that took place during the system building. The rationale of this comparison is that the system building process requires different institutional [3], social [5], political [5], and technological settings [1]. Consequently, the system building processes require learning processes that take place in different types. In other words, these two conditions are important. Therefore the role of agents to tackle these conditions is crucial. How agents do learn within these conditions is interesting in order, for example, to solve the emerging problems and to manage the organizations to show their existences and to be competitive.

The comparison between building the systems of innovation and what role learning may critically play is called

“system building vs. appropriate learning” approach. The “system building vs. appropriate learning” is related to Edquist’s work in comparing the concept of the system between Nelson and Rosenberg and Carlson [3]. Edquist describes that, partly, elements of the system are designed consciously and, partly, over extended time of period elements evolve spontaneously. In other part of Edquist explanations, citing the words from Lundvall [3], he mentioned the type of learning as learning by doing, learning by using, and learning by interacting. Learning by doing deals with “increasing the efficiency of production operations”, learning by using is for “increasing the efficiency of the use of complete system”, and learning by interacting is about “involving users and producers in an interaction resulting in product innovation”. The paper did not consider the learning type by Llrena and Schenk [12], Fischer & Fröhlich [4] or King [9] for the limitation of this paper.

### **3. Discussion**

The “system building vs. appropriate learning” consists of two dimensions: the dimension of “system building” and “learning type”. The “System building” dimension are “as-designed” and “spontaneously” element. Meanwhile, “Learning type” has learning-by-doing, learning-by-using, and learning-by-interacting element.

#### **• As-Designed Element**

By comparing the “as-designed” element with the whole elements of learning type, the study argues that “as-designed” system is relevant for all learning types; all types of learning are able to take place in “as-designed” condition of the system. It can be further argued, then, that when the system of innovations in the part of designed consciously (as-designed) then human resources demand takes into consideration all aspects of learning. These conditions have influenced both levels of group (that constitutes to learning-by-doing and learning-by-using) and organization or management levels (that constitute mostly learning-by-interacting as it deals with inter-organization relation).

Putting this on the frame of relation between ICT development and systems of innovation, the study suggests that the development of ICT takes into consideration learning processes on both levels of group and organization or management. It further means that learning in both levels to knowledge management program is important for ICT development. Human resources demand to this circumstance considers the qualification of decision-making skill on both strategic and tactical goals.

The “as-designed” condition is near to the period of deployment within the four basic phases of each surge of development by Perez [1]. Within this period firms or organizations can manage their social, economic, political factors. The conditions of this period are not under uncertain and complex.

#### **• “Spontaneously” Element**

Comparing “spontaneously” element with all types of learning, the study argues that only learning-by-interacting may be able to take place within the “spontaneous” situation of the system in the evolving process. The further argument is that only an organization or management level has influence in term of interaction with external organization.

From the point of ICT development and systems of innovation relation, the study then suggests that during the evolving system characterized by spontaneous the level of organization or management is important for the development of ICT. It further means that the role of top management level is more important than the other management level. In this circumstance, human resources demand is directed to qualifications on strategic goals.

It is in the period of installation and of maturity of Perez’s “surge of development” [1]. This period is uncertain and complex in nature. The dynamic and progressing-conditions of social, economic, and political factors are what the organizations or firms are facing. Therefore, the top management level should handle, tackle, and manage the competing existing and emerging paradigms, and the potentials but fully unexplored innovative technologies to name a few. All in all, the top management should do strategic decision-makings to this comparison.

Other important considerations to this comparison is that when “as-designed” system building considers the whole learning types, it can be proposed for further discussion that human resources demand deals with general management competence, while for the other relationship it deals with social competence. Consequently, further critical question is whether social competence relates to more strategic decision making and whether managerial competence relates to more tactical decision making?

### **4. Conclusion**

It is, indeed, clear that the ICT development within the context of systems of innovation is far from fully understood. It is said so since the characters of the systems of innovation, which is complex, systemic, path-dependent,

interrelated, need more research efforts from multidisciplinary approaches and perspectives in order to exploit the recently explored sub-systems.

One of the efforts that this paper tries to explore is to study the relation between ICT development and the systems of innovation from the perspective of the position of human resources need within the relation context. The result of this exploration is considered as very immature in the framework of the characters of the system as a whole. Nevertheless, as Edquist [3] has noted, the systems of innovation study or approach is built by both conceptual and empirical works.

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# The Impact of Intellectual Capital on the Financial Performance of Non-Financial Services Companies Listed in Indonesia Stock Exchange within 2010-2013

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## Abstract

This study aimed to analyze the influence of intellectual capital on the financial performance. Intellectual capital is an independent variable, which is represented by the Value Added Intellectual Capital (VAIC™), and financial performance is a dependent variable, which is measured by Return on Assets (ROA), Return on Equity (ROE), Assets Turnover (ATO), and Growth Revenue (GR). This study was conducted by applying the purposive sampling technique on non-financial services companies that were listed in the Indonesia Stock Exchange within 2010-2013. The non-financial services companies consisted of 33 companies of Property, Real Estate, and Building Construction Sector; 7 companies of Infrastructure, Utilities, and Transportation Sector; and 44 companies of Trade, Services, and Investment Sector. The study was a descriptive-verification-study with a panel-data-regression as the analysis technique. The results of this study shows that the intellectual capital significantly influenced ROA and ROE in three sectors, but it significantly affected ATO only in Property, Real Estate, Building Construction Sector, Infrastructure, and Utilities & Transportation Sector. The intellectual capital also significantly influenced GR only in Property, Real Estate, and Building Construction Sector.

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**Keywords:** Intellectual Capital, Intellectual Capital Value Added (VAIC™), Financial Performance

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## 1. Introduction

The increasing gap between market values and net assets has currently attracted some researchers to reveal the hidden value of intangible assets of firms (Chen et al [1]; Ulum et al [2]; Firer & Williams [3]). One of the approaches that is commonly used in the study and measurement of intangible assets is Intellectual Capital. It is the focus of attention in many fields, i.e. a good management, information technology, sociology, and accounting (Ulum et al [2]).

In Indonesia, the phenomenon of the intellectual capital began to grow since the advent of Statement of Financial Accounting Standards (*Pernyataan Standar Akuntansi Keuangan – PSAK* [4]) No. 19 (Revised 2000) about intangible assets. According to PSAK No. 19 (Revised 2009), intangible assets are non-monetary assets that can be identified without their physical form (non-physical assets). An asset is said to be identifiable if it can be separated or distinguished from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, identifiable asset or liability, regardless of whether the entity intends to do or arises from contractual or other legal rights, regardless of whether those rights can be transferred or separated from the entity or from the other rights and obligations [4].

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Some concepts of measurement have been created and developed by several researchers to measure the performance of intellectual capital companies, one of which is the model developed by Pulic in Ulum et al [5]. Pulic developed a method, Value Added Intellectual Capital Coefficient (VAIC™) in 1997 to provide information about the value creating the efficiency of tangible assets and intangible assets of a company. The main components of VAIC™ are physical capital (VACA - Value Added Capital Employed), human capital (VAHU - Value Added Human Capital), and structural capital (STVA - Structural Capital Value Added) as stated by Ulum [5]. This method is relatively easy and very possible to do, as constructed from the accounts in the financial statements (balance sheet, profit and loss). Zuliyati & Arya [6] stated that the data needed to calculate various ratios were standard financial figures, generally available in the company's financial statements. VAIC™ Model by Pulic is considered to meet the basic needs of the contemporary economy 'measurement system' that shows the true value and performance of a company, because the main objective in the knowledge-based economy is to create value added as suggested by Lasiyono [7].

This study attempted to measure the effect of intellectual capital on the financial performance of the services industries (non-financial) that were listed in the Indonesia Stock Exchange (IDX). The selection of samples was triggered by the phenomenon of growth rate based on the scope of business (sector) in 2013, which were dominated by companies in the services sector such as transport and communications sector; Financial Sector; Real Estate and Business Services; Construction sector; and Trade, Hotel, and Restaurant Sector (Badan Pusat Statistik, 2014). Furthermore, it was found on the research of Firer & Stainbank (2003) that a service industry was categorized in high knowledge-based industries that most intensively used its intellectual capital, while financial sector was not included into the selected samples, as the financial sector was an "old economy" industry, which always used financial assets in its activities as proposed by Abdolmohammadi [8].

Referring to the study of Chen et al [1], Ulum et al [2], and Firer & Williams [3], the VAIC™ model was selected as a proxy of intellectual capital and financial performance that is represented by the Return on Assets (ROA), Return on Equity (ROE), Assets Turnover (ATO), and Growth of Revenue (GR).

## 2. Literature Review

### 2.1. Stakeholder Theory

Ulum [2] stated that the stakeholder theory considers the position of stakeholders who are powerful. Stakeholder's group is the primary consideration for the company to disclose or to cover information in the financial statements, so that the company will strive to achieve the optimal performance as expected by the stakeholders.

### 2.2. Resource-Based Theory

Organizational resources can be divided into three types, namely physical resources (plant, equipment technology, and the physical, geographical location), human resources (experience and knowledge of employees), and organizational (structure; systems for activity planning; monitoring and control; and social relations within the organization, and between the organization and the external environment). Each of these resources have different contributions in achieving sustainable competitive advantages, so the company should be able to determine the key resources that can create sustainable competitive advantages. Therefore, the companies must realize the importance of managing the intellectual capital that they have, because their intellectual capital can fulfill the criteria as a unique resource that can create a competitive advantage for the company by creating value added to the company's performance as set out by Bassey & Tapang [9].

### 2.3. Intellectual Capital

Stewart defined intellectual capital as "the sum of everything known by everybody in your company that gives you a competitive edge in the market place. It is intellectual materials - knowledge, information, intellectual property, experience - that can be put to be used to create wealth "as stated in Ulum [5].

Purnomasidhi [10] concluded the intellectual capital components also in three elements, namely the intellectual model that is attached to humans (Human Capital/HC), the intellectual capital that is attached to the organization (Structural Capital/SC), and the intellectual capital that is attached to the relationships with external parties (customer capital/CC). Sawarjuwono & Kadir [11] proposed that SC is an organization's or a company's ability that is used in company routines and structures to support employees as the efforts to produce optimal intellectual performances. HC is the lifeblood of intellectual capital. This is the source of innovation and improvement, but it is also a component that is difficult to measure. HC is a very useful source like knowledge, skills, and competencies in an organization or company. HC will increase if the

company is able to use the knowledge that employees have. Meanwhile, CC is a harmonious relationship or association network that is owned by a company with its partners. It is derived from both reliable suppliers and quality, from the loyal customers who are satisfied with the services of the company concerned, and from the company's relationship with government and with the surrounding community. Relational capital can come from various parts outside the company that can add values to the company.

#### *2.4. Value Added Intellectual Coefficient (VAIC<sup>TM</sup>)*

Ulum et al [2] defined Value Added Intellectual Coefficient (VAIC<sup>TM</sup>) as a method developed by Pulic (1998, 1999, and 2000) to present information about value creation efficiency of tangible assets and intangible assets owned by a company. This model begins with the company's ability to create value added (VA). VA is the most objective indicator to assess the success of the business and demonstrate the company's ability to create values. The value added is obtained from the variance between the outputs (OUT) and input (IN). VAIC<sup>TM</sup> consists of Value Added Capital Employed (VACA), Human Capital Value Added (VAHU), and Structural Capital Value Added (STVA).

Tan et al [12] stated that the output (OUT) represents the revenue, and covers all products and services sold in the market, while the input (IN) covers the entire expenses used in obtaining revenue. According to Tan et al [12], the importance of this model is the labor expense that is not included in IN. Because of its active roles in the process of value creation, the intellectual potential – which is represented by labor expense – is not counted as expense (cost), and is not included in the IN component as stated by Ulum [2]. Therefore, Tan et al [12] asserted that the key aspect in Pulic model is the treatment of labor as the entity creation of value.

#### *2.5. Relationship between Value Added Intellectual Coefficient (VAIC<sup>TM</sup>) and Financial Performance*

The relationship between intellectual capital and company's financial performances has been demonstrated in a variety of approaches in different sectors of the company as well as in various countries. The following table summarizes some of the research conducted to examine the relationship between intellectual capital and financial performance.

Table 1. The Empirical Research on Relationship between Intellectual Capital and Financial Performance

Researchers	Country	Methods	Result
Chen et al[1]	Taiwan	VAIC <sup>TM</sup> , correlation <sup>2</sup> regression	IC affected the market value and performance of the company; R & D affected the performance of the company.
Firer & Williams [3]	South Africa	VAIC <sup>TM</sup> , linear regression	VAIC <sup>TM</sup> Had relationship s with firm performance (ROA, ATO, MB).
Clarke et al[13]	New Zealand	VAIC <sup>TM</sup> , correlation, multiple regression	IC related to financial performances, both in the previous year, and in the future.
Ulum et al[2]	Indonesia	VAIC <sup>TM</sup> , PLS	There was a positive significant relationship between IC and financial performance. But the growth rate of IC did not affect the financial performance in the future.

### **3. Theoretical Framework and Hypotheses Development**

#### *3.1. Relationship between Intellectual Capital and Return on Assets*

If Intellectual Capital (IC) is able to minimize the expenditure, then the company can utilize its assets more efficiently; it will accordingly generate more profits for the company and increase its profitability ratio of Return on Assets (ROA). Thus, the Hypothesis 1 is as follow:

**H<sub>1</sub>** : The Intellectual Capital which is measured by the Value Added Intellectual Coefficient (VAIC<sup>TM</sup>) will

**significantly impact on the Financial Performance which is measured by Return on Assets (ROA).**

### *3.2. Relationship between Intellectual Capital and Return on Equity*

If a company can achieve an optimal management of intellectual capital, it will be able to generate greater profits, then it will increase its profitability of Return on Equity (ROE) that will attract investors to invest more money in the company. Thus Hypothesis 2 is as follows:

**H<sub>2</sub> : The Intellectual Capital which is measured by the Value Added Intellectual Coefficient (VAIC<sup>TM</sup>) will significantly impact on the Financial Performance which is measured by Return on Equity (ROE).**

### *3.3. Relationship between Intellectual Capital and Assets Turnover*

With a good management of intellectual capital, the use of assets can be more effective and efficient. Furthermore, the company can produce more qualified services that can increase the amount of revenue and ultimately increase the company's ratio of Assets Turnover (ATO). Thus, the Hypothesis 3 is as follow:

**H<sub>3</sub> : The Intellectual Capital which is measured by the Value Added Intellectual Coefficient (VAIC<sup>TM</sup>) will significantly impact on the Financial Performance which is measured by Assets Turnover (ATO).**

### *3.4. Relationship between Intellectual Capital and Growth of Revenue*

By optimizing intellectual capital, the company will be more productive so that the revenue will also grow well. Thus, the Hypothesis 4 is as follow:

**H<sub>4</sub> : The Intellectual Capital which is measured by the Value Added Intellectual Coefficient (VAIC<sup>TM</sup>) will significantly impact on the Financial Performance which is measured by Growth of Revenue (GR).**

Thus, the theoretical framework that figures the relationship pattern of those variables is as follow:

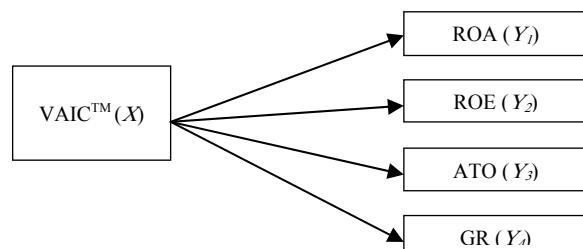


Fig 1. Theoretical Framework

## **4. Research Methods**

### *4.1. Population and Samples*

The population used in this study were all services companies (non-financial) listed in the Indonesia Stock Exchange within the period of 2010 until 2013. The purposive sampling method was conducted in the determination of the samples, which resulted in 84 companies.

### *4.2. Independent Variable*

This study used Intellectual Capital (IC) as an Independent Variable with the Value Added Intellectual Capital (VAIC<sup>TM</sup>) as the proxy, and the formulation of VAIC<sup>TM</sup> was based on Pulic in Ulum [5] is as follow:

#### Stage One: Calculating the Value Added (VA).

VA is calculated as the difference between output and input.

$$\boxed{\mathbf{VA = OUT - IN}}$$

OUT	= <i>Output</i> , total of sales or operating income / business.
IN	= <i>Input</i> , total of sales expense or operating costs / effort (other than employee costs)

#### Two: Calculating the Value Added Capital Employed (VACA).

VACA is an indicator for the VA that is created by one unit of physical capital. This ratio indicates the contribution made by each unit of CE to the value added of the organization.

$$\boxed{\mathbf{VACA = VA/CE}}$$

VACA	= <i>Value Added Capital Employed</i> , the ratio of VA to CE
VA	= <i>Value Added</i>
CE	= <i>Capital Employed</i> , total equity

#### Stage Three: Calculating the Human Capital Value Added (VAHU).

VAHU shows how much VA can be produced with funds expended for labor. This ratio indicates the contribution made by each amount invested in the HC to the value added organization.

$$\boxed{\mathbf{VAHU = VA/HC}}$$

VAHU	= <i>Value Added Human Capital</i> , the ratio of VA to HC
VA	= <i>Value Added</i>
HC	= <i>Human Capital</i> , labor expense

#### Stage Four: Calculating the Structural Capital Value Added (STVA).

This ratio measures the number of SC that is required to produce the amount of VA, and it is an indication of how successful the SC in the creation of the value.

$$\boxed{\mathbf{STVA = SC/VA}}$$

STVA	= <i>Structural Capital Value Added</i> , the ratio of VA to SC.
SC	= <i>Structural Capital</i> , VA – HC
VA	= <i>Value Added</i>

#### Stage Five: Calculating the Value Added Intellectual Coefficient (VAIC<sup>TM</sup>)

VAIC<sup>TM</sup> indicates that an organization's intellectual ability can also be considered as BPI (Business Performance Indicator). VAIC<sup>TM</sup> is the sum of the previous three components: VACA, VAHU, and STVA.

$$\boxed{\mathbf{VAIC^{TM} = VACA + VAHU + STVA}}$$

#### *4.3. Dependent Variable*

The dependent variable of this study is financial performance. Financial performance is measured by using the profitability ratios of Return on Assets (ROA) and Return on Equity (ROE), the activity ratio measured by Assets Turnover (ATO), and the growth ratio that is measured by Growth of Revenue (GR).

**ROA** reflects the firms' efficiency in utilizing total assets, and holding the constant firm's financing policy as stated by Chen [1].

According to Keown et al [14], ROA is calculated by the formula as follow:

$$ROA = \frac{\text{Earning After Tax}}{\text{Total Assets}}$$

**ROE** measures the efficiency of the company in generating profits from money invested by shareholders. It is calculated by dividing net income by the number of equity stakeholders as proposed by Ehrhardt & Brigham [15], with the formula as follow:

$$ROE = \frac{\text{Earning After Tax}}{\text{Shareholders' Equity}}$$

**ATO** is the ratio of total income or sales to book the value of total assets. This ratio measures how much of the total assets can generate revenue as asserted by Firer & Williams [3].

Keown et al [14] set out the formula of the ATO as follow:

$$ATO = \frac{\text{Sales}}{\text{Total Assets}}$$

**GR** measures changes in the company's revenue. The increase in revenue is usually a sign for the company to be able to grow and develop as stated by Chen [1].

The formulation of GR is as follow (Chen et al., 2005: 165):

$$GR = \left( \left( \frac{\text{current year's revenues}}{\text{last year's revenues}} \right) - 1 \right) \times 100\%$$

#### 4.4. Techniques of Data Analysis

VAIC™ formulated by Pulic in Ulum [5] was used to determine the efficiency of the three models of Intellectual Capital (IC), namely physical capital, human capital, and structural capital. Data analysis was conducted with a panel data regression method. The regression analysis was applied in this research to predict the value of the dependent variables caused by the changes of the independent variables. Panel data was a combination of cross-section data and time series data. Cross-section data was data collected from multiple objects at one time, while the time series data were data collected from time to time on a single object. Thus, Suliyanto [16] stated that the data collected from multiple objects with multiple time are known as panel data.

Table 2. Panel Data Regression Equation Model to Be Used

Equations Model1	$ROA = \beta_0 + \beta VAIC$
Equations Model2	$ROE = \beta_0 + \beta VAIC$
Equations Model3	$ATO = \beta_0 + \beta VAIC$
Equations Model4	$GR = \beta_0 + \beta VAIC$

## 5. Results and Discussion

### 5.1. Descriptive Statistics

Table 3 will show the descriptive statistics on the dependent variable (financial performance) and the independent variables (VAIC<sup>TM</sup>) in the services industries which were divided into 3 sectors, namely Property, Real Estate, Construction & Building (PRB); Infrastructure, Utilities, and Transportation (IUT); and Trade, Services, and Investment (TSI), which were listed in the Indonesia Stock Exchange within the period of 2010 to 2013.

Table 3. Descriptive Statistics

	<i>Property, Real Estate, &amp; Building Construction (PRB)</i>	<i>Infrastructure, Utilities, &amp; Transportation (IUT)</i>	<i>Trade, Service, &amp; Investment (TSI)</i>
VAIC <sup>TM</sup>	Mean	6.091289	4.514030
	Maximum	24.28740	11.65371
	Minimum	1.944212	1.058566
	Std. Dev. Coef.	0.597629	0.639275
ROA	Mean	6.372001	6.352573
	Maximum	31.61060	16.51000
	Minimum	0.540000	0.090000
	Std. Dev. Coef.	0.644811	0.858233
ROE	Mean	12.94115	14.82171
	Maximum	44.29000	55.51000
	Minimum	-20.34000	0.210000
	Std. Dev. Coef.	0.718299	0.832648
ATO	Mean	0.360164	0.388686
	Maximum	1.150000	1.771656
	Minimum	0.030000	0.110000
	Std. Dev. Coef.	0.756088	0.869748
GR	Mean	34.93858	40.35833
	Maximum	405.2411	253.9582
	Minimum	-43.76525	-44.56092
	Std. Dev. Coef.	1.535860	0.869748
Observations		132	28
Cross sections		33	7
			176
			44

Table 3 describes that the data of VAIC<sup>TM</sup> of PRB sector are the most homogeneous due to the lowest standard deviation among the three sectors. IUT sector is in the second level, and TSI sector is the highest one ( $KV_{PRB} = 0, 597629 < KV_{IUT} = 0, 639275 < KV_{TSI} = 1, 242814$ ). The same results consistently occur in data of ROA:  $KV_{PRB} = 0, 644811 < KV_{IUT} = 0, 858233 < KV_{TSI} = 0, 940620$ ; data of ROE:  $KV_{PRB} = 0, 718299 < KV_{IUT} = 0, 832648 < KV_{TSI} = 0, 844996$ ; data of ATO:  $KV_{PRB} = 0, 756088 < KV_{IUT} = 0, 869748 < KV_{TSI} = 0, 905163$ ; and data of GR:  $KV_{IUT} = 0, 869748 < KV_{PRB} = 1, 535860 < KV_{TSI} = 2, 576225$ .

### 5.2. Panel Data Regression

**ROA and VAIC<sup>TM</sup>:** The results of the relationship between ROA and VAIC<sup>TM</sup> are presented in Table 4. The finding showed that there was a positive and significant relationship between them.

Table 4. ROA and VAIC<sup>TM</sup>

Sector		Coefficient	t-statistic	p-value	Adjusted R <sup>2</sup>
PRB	Constant	-0.842304	-1.506975	0.1350	0.740185
	VAIC	1.184364	13.65370	0.0000	
IUT	Constant	2.423148	0.880001	0.3869	0.116325
	VAIC	0.870492	2.094556	0.0461	
TSI	Constant	6.281318	7.475475	0.0000	0.041563
	VAIC	0.306622	2.924688	0.0039	

\* Significance ( $\alpha$ ) = 0, 05

The regression models of the relationship are:

$$\text{PRB Sector: } \text{ROA}_{\text{PRB}} = -0, 842304 + 1,184364 \text{ VAIC}$$

$$\text{IUT Sector: } \text{ROA}_{\text{IUT}} = 2,423148 + 0,870492 \text{ VAIC}$$

$$\text{TSI Sector: } \text{ROA}_{\text{TSI}} = 6,281318 + 0,306622 \text{ VAIC}$$

**ROE and VAIC<sup>TM</sup>**: The results of the relationship between ROE and VAIC<sup>TM</sup> are presented in Table 5. The finding showed that there was a positive and significant relationship between them.

Table 5. ROE and VAIC<sup>TM</sup>

Sector	Coefficient	t-statistic	p-value	Adjusted R <sup>2</sup>
PRB	Constant	2.435851	1.541736	0.1256
	VAIC	1.724643	10.54972	0.0000
IUT	Constant	0.898719	0.183937	0.8555
	VAIC	3.084381	3.464548	0.0019
TSI	Constant	11.96458	8.670046	0.0000
	VAIC	0.425352	2.472043	0.0144

\* Significance ( $\alpha$ ) = 0, 05

The regression models of the relationship are:

$$\text{PRB Sector: } \text{ROE}_{\text{PRB}} = 2,435851 + 1,724643 \text{ VAIC}$$

$$\text{IUT Sector: } \text{ROE}_{\text{IUT}} = 0,898719 + 3,084381 \text{ VAIC}$$

$$\text{TSI Sector: } \text{ROE}_{\text{TSI}} = 11,96458 + 0,425352 \text{ VAIC}$$

**ATO and VAIC<sup>TM</sup>**: The results of the relationship between ATO and VAIC<sup>TM</sup> are presented in Table 6. The finding showed that there was a positive and significant relationship between them in PRB sector, a negative and significant relationship in IUT sector, and there was no significant relationship between them in TSI sector.

Table 6. ATO and VAIC<sup>TM</sup>

Sector	Coefficient	t-statistic	p-value	Adjusted R <sup>2</sup>
PRB	Constant	0.303440	6.067297	0.0000
	VAIC	0.009312	3.248907	0.0015
IUT	Constant	0.630442	5.788890	0.0000
	VAIC	-0.053557	-2.621021	0.0145
TSI	Constant	1.580570	8.283645	0.0000
	VAIC	-0.018022	-1.460046	0.1461

\* Significance ( $\alpha$ ) = 0, 05

The regression models of the relationship are:

$$\text{PRB Sector: } \text{ATO}_{\text{PRB}} = 0,303440 + 0,009312 \text{ VAIC}$$

$$\text{IUT Sector: } \text{ATO}_{\text{IUT}} = 0,630442 - 0,053557 \text{ VAIC}$$

$$\text{TSI Sector: } \text{ATO}_{\text{TSI}} = 1,580570 - 0,018022 \text{ VAIC}$$

**GR and VAIC<sup>TM</sup>**: The results of the relationship between GR and VAIC<sup>TM</sup> are presented in Table 7. The finding showed that there was a positive and significant relationship between them in PRB sector, but there was no significant relationship between them in IUT and TSI sector.

Table 7. GR and VAIC<sup>TM</sup>

Sector		Coefficient	t-statistic	p-value	Adjusted R <sup>2</sup>
PRB	Constant	5.543933	10.71426	0.0000	0.090654
	VAIC	0.015666	3.761010	0.0003	
IUT	Constant	40.10175	1.684436	0.1041	-0.038455
	VAIC	0.056840	0.012725	0.9899	
TSI	Constant	20.18371	3.856952	0.0002	-0.003362
	VAIC	-0.498209	-0.642147	0.5216	

\* Significance ( $\alpha$ ) = 0, 05

The regression models of the relationship are:

$$\text{PRB Sector: } \text{GR}_{\text{PRB}} = 5, 543933 + 0,015666 \text{VAIC}$$

$$\text{IUT Sector: } \text{GR}_{\text{IUT}} = 40, 10175 + 0,056840 \text{VAIC}$$

$$\text{TSI Sector: } \text{GR}_{\text{TSI}} = 20, 18371 - 0,498209 \text{VAIC}$$

## 6. Finding and Conclusion

In this research, IC was measured by applying VAIC<sup>TM</sup> method on samples in Indonesian Stock Exchange (IDX), i.e. 33 companies from Property, Real Estate, & Building Construction Sector; 7 companies from Infrastructure, Utilities, and Transportation Sector; and 44 companies from Trade, Service, and Investment Sector. The empirical finding of this study showed that there were clearly significant positive relationships between VAIC<sup>TM</sup> and ROA; and VAIC<sup>TM</sup> and ROE. The same results were consistently found in those three sectors. There was a significant positive relationship between VAIC<sup>TM</sup> and ATO in Property, Real Estate, and Building Construction Sector; a significant negative relationship in Infrastructure, Utilities, and Transportation Sector; and there was no significant relationship between VAIC<sup>TM</sup> and ATO in Trade, Service, and Investment Sector. It was also found that there was a significant positive relationship between VAIC<sup>TM</sup> and GR in Property, Real Estate, and Building Construction Sector, but there was no empirical evidence to suggest a relationship between VAIC<sup>TM</sup> and GR in Infrastructure, Utilities, Transportation Sector; Trade, Service, and Investment Sector. In other words, the profitability of a firm was positively influenced by the increase in the value creation efficiency of the intellectual capital. Moreover, findings of this study might be exercised by the managers of companies to utilize and organize the intellectual capital to have additional profitable output.

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# The Influence of Leadership Style, Organisation Culture, Work Motivation, and Work Satisfaction Towards Staff Performance in Bank X in Jakarta

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## ABSTRACT

The bad staff performance of the company caused poor company performance. In this research, Bank X experienced a decrease in its net income in 2012 which was caused by the increase of its operational load towards the operational income. Bank X noted a 24% less net income compared to that of 2011. This was caused by the increase to the workload of the employees in order to fulfil the performance standard expected by Bank X's management. Employees are crucial for the company's vision and mission in the aspect of performance. The factors that determine the staff performance are leadership style, organization culture, work motivation and work satisfaction. The purpose of this research is to measure the influence of leadership style, organization culture, work motivation and work satisfaction towards staff performance. This research was conducted in the Credit Services Division of Bank X in Jakarta. The respondents of the research were 45 employees. The data analysis technique was the multiple regressions. Based on the results, it was ascertained that the influence of leadership style, organization culture, work motivation and work satisfaction was present in the Credit Services Division of Bank X in Jakarta.

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**Keywords:** Leadership Style, Organizational Culture, Work Motivation, Work Satisfaction and Staff Performance.

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## 1. INTRODUCTION

### *Background*

Companies and employees have a significant and mutually beneficial relationship. The company requires employees to support the achievement of the performance goals of the organization. And conversely, employees require the company to earn income and develop a career path. "Performance is the result of someone's work achieved in carrying out the tasks assigned to him based on skills, experiences, sincerity and time. If the performance of each employee is good, then the performance of the company will be better" (Hasibuan, 2000).

Bank as a company of the banking industry sector, has a lot of employees.

"According to the Banking Act No. 10 of 1998, bank is a business entity which collects funds from the public in the form of savings and distributes them to the public in the form of loans and/or other forms in order to improve the living standard of the people" (Ismail, 2011). Mc Neese-Smith (1996) stated that, "In an era of increased competition

and a scarcity of resources, maximizing the productivity of employees, work satisfaction, and commitment to the organization is a critical issue for the management of the company”.

Becker and Gerhart (1996) stated that, “Every business organization is required to improve its performance in order to win the competition”. This can be done by reducing expenditures, innovating processes and products, as well as improving quality and productivity. All of which can be met with the support of human resource performance.

The object of this research was Bank X which had a decreased revenue in 2012 compared to the revenue in 2011. In percentage terms, the bank experienced a revenue decrease of 24%. In 2011, the number of recorded profit was IDR 326.8 billion, whereas in 2012, the amount of profit was IDR 246.9 billion. According to the bank’s finance director, the decrease in the revenue was due to the increase in the operational expenses towards the operational income (ROA) (Investor Daily, May 2013). In the management analysis and discussion held by the bank, it was informed that the operational expenses during the year was IDR 886 billion, 28.03% more than the previous year, which was only IDR 692 billion. This was due to an increase in personnel expenses and expenses associated with the implementation of new information technology. The bank reports that “the operational expenses towards operational income (ROA) were recorded to be 90.02% in the current year, which means an 81% increase compared to the previous year” (Bank X’s Management Analysis and Discussion, 2012).

Staff performance is influenced by several factors. They are leadership styles, organizational culture, work motivation, and work satisfaction. If there is a discrepancy between the staff and these factors, it will affect the performance of the staff that will have an impact on the company's goals.

### **Research Questions**

According to the background explained above, the research problems are as follows: how do the factors: leadership style, organizational culture, work motivation, and work satisfaction influence the staff performance? How does each of these factors influence the staff performance?

### **Research Objectives**

The purpose of this research is to examine the factors that influence the staff performance, which are leadership style, organizational culture, work motivation and work satisfaction, both simultaneously and individually.

## **2. THEORETICAL FRAMEWORK**

### **Leadership style**

Leadership style is defined as “the behavior or the way that leaders choose and use to influence his subject’s thoughts, feelings, attitudes, and organizational behavior” (Nawawi, 2003).

#### *Types of leadership style*

Ronald Lippit and Ralp K. White stated that, “there are three types of leadership style” (in Soekarso, 2010).

##### **Authoritarian Leadership Style**

This leadership style covers a number of behaviors or leadership styles that are centered on the leader (centralistic) as the sole determinant, ruler and controlling member of an organization and its activities in order to achieve organizational goals.

##### **Democratic Leadership Style**

Democratic leadership style puts human beings as the most important factor of leadership that is based and emphasizes on the orientation of relationships between the members of an organization.

##### **Free Leadership Style (*Laissez Faire* or Free-Rein)**

This leadership style essentially views the members of an organization as independent in making decisions or taking care of themselves, with minimal guidance or instructions in the realization of the individual main tasks as parts of the main tasks of the organization.

### ***Organizational culture***

Robbins (2003) defines that “organizational culture refers to a system of beliefs held by the members of an organization that distinguishes the organization from others”

The four major functions of organizational culture, i.e.:

Adaptability: explains that culture consists of collective responses that are proved to be adaptive in the past for an organization. When confronted with a new situation, at first, the organization will try to use known collective responses. These responses are beneficial to the members of the organization because they represent the success strategy in adapting the organization continuously.

Involvement: describes the level of involvement and participation of the members of an organization that creates a sense of belonging and responsibility. This sense of belonging will increase the members' commitment towards the organization, and the capacity to operate in ambiguous and low-need conditions in low control systems.

Mission: describes the collective limits of function and purpose of an organization.

Consistency: explains that in a strong culture, communication is a process that is reliable in exchanging information as it explains the meanings of the words, actions and other symbols. In addition, general perspectives, belief systems, and values that are widely understood and internalized by the members will improve internal coordination and facilitate the organization better in achieving consensus.

### ***Work Motivation***

Stoner and Freeman (1994) states that “motivation is a factor that causes, distributes, and supports human behavior”. Motivation means giving a motive, arousing a motive or a circumstance that lead to the arousal of a motive.

#### ***Motivation Affecting Factors***

Stoner and Freeman (1994) describe three factors affecting the motivation of an organization, i.e.:

Individual characteristics, such as interests, attitudes and needs that are brought by someone into a work situation.

Work characteristics, which cover the nature of the employee's duties, including kinds of responsibility, kinds of task, and the levels of satisfaction the employee obtains from the work itself.

Characteristics of the employment situation, which serves as a factor in the working environment and organizational measures.

### ***Work Satisfaction***

Milton (1981) describes work satisfaction as “a worker's positive emotional state or the feeling of pleasure towards the work resulting from the worker's assessment on the work based on his experience”

#### ***Work Satisfaction Affecting Factors***

Davis and Newstrom (1989) describe two affecting factors to work satisfaction, which are organizational factor and personal factor.

Organizational factor: exists in the organizational or corporate environment.

Personal factor: exists in the staff's personalities.

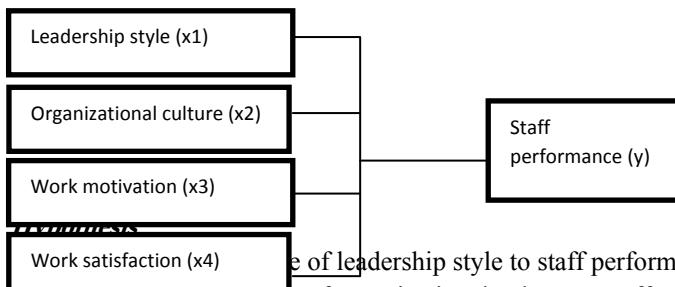
### ***Staff Performance***

Bernadin and Russell (1993) define performance as “a result of the work achieved by an employee based on the functions of his job in a certain period”<sup>[2]</sup>.

### **Performance Affecting Factors**

- Flippo describes four standard measurements of performance (in Hardini, 2001),
  - Work quality, involving punctuality, attentiveness, and tidiness.
  - Work quantity, involving completed amount of regular and additional work.
  - Work resilience, involving the ability to follow instructions, to perform standard safety procedures, being initiative, punctual, and having a good record of attendance.
  - Attitude, involving the responsibility in executing tasks, and the proper level of cooperation with co-workers.

### **Research Framework**



There is an influence of leadership style to staff performance.  
There is an influence of organizational culture to staff performance.

**H3.** There is an influence of work motivation to staff performance.

**H4.** There is an influence of work satisfaction to staff performance.

**H5.** There is an influence of leadership style, organizational culture, work motivation, and work satisfaction to staff performance.

### **3. METHODOLOGY**

The population of this research was the staff of Credit Services Division in Bank X in Jakarta. The sample or population component as respondents of this research was all staff of Credit Services Division in Bank X in Jakarta, due to the population number which was less than 100. The data collection technique used was questionnaire method. This method consists of a list of questions submitted to the respondents to obtain answers in the form of writings (Djali and Farouk, 2003), and using *likert* scale models. The data analysis technique of this research was the multiple regression analysis.

This research examined the independent variables (Leadership style, Organizational Culture, Work Motivation, Work Satisfaction) and a dependent variables (Staff Performance).

### **4. ANALYSIS OF FINDINGS**

The data used in this research was primary, which means the data that were obtained directly from the research subjects. The data were obtained by the distribution of questionnaires (according to the construct items in the Operational Variables) to all staff of Credit Services Division in Bank X in Jakarta. The data processed were 45 copies out of 47 respondents, because the two copies were considered incomplete.

The following is the result of each variable in this research, which is the influence of leadership style, organizational culture, work motivation, and work satisfaction to staff performance.

Variable	R Square	Sig
Leadership style	.733	.000
Organizational culture	.292	.000
Work motivation	.274	.000
Work satisfaction	.169	.005

According to the research results, it can be derived that each of the factors influences the staff performance, and has a value of relation/combination of variable x that can be explained in the variable y with the value of each R

Square obtained by the signification level of 'significant' (very influential), except for the work satisfaction variable that has the signification level of 'tends to be influential' due to  $p = 0.005$  ( $p < 0.005$ ).

Simultaneously, the variables tested have a value of R Square .760 with sig = .000. So, it can be derived that there is a relation/combination value of variable x which can be explained in the variable y by 76% with a signification level of 'significant' (very influential). Therefore, the hypothesis proposed in this research can be considered as valid.

The validity of items is shown by the magnitude of the calculated F compared to the  $F_{table}$ . Results of further calculations is then consulted with the  $F_{table}$  at the significant level of 0.05. If the result of the calculated F is greater than the  $F_{table}$ , the instrument is considered to be valid. However, if the calculated F is smaller than the  $F_{table}$ , the instrument is considered to be invalid. The reliability test will show the consistency of the respondents' answers towards the statements and questions in the questionnaire. The SPSS facilitates the reliability measurement with the statistical test of Cronbach Alpha ( $\alpha$ ). A variable is considered reliable if the value of  $\alpha$  is greater than 0.60. Otherwise, it is not reliable.

## 5. CONCLUSION AND RECOMMENDATIONS

According to the overall research results, leadership style, organizational culture, work motivation, and work satisfaction have a connection to and influence staff performance in the Credit Services Division of Bank X. Some specific examples that will answer the research question above are as follows:

1. The most influencing factor is leadership style. So, it is recommended to have a good, competent, and contributing leadership style in order to improve the staff performance.
2. The second factor of influence is organizational culture. It is recommended that the management of Bank X possesses clear values, policies, and rules to be able to contribute to the staff in both terms of rights and obligations.
3. The third factor of influence is work motivation. It is recommended for the management and staff of Bank X to develop a positive synergy.
4. The fourth factor of influence is work satisfaction, especially in the matter of company policies.
5. Staff performance assessment can be conducted through the work quality approach.

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# The Mediating Effect of Leader Support on the Relationship between Interpersonal Trust, Employee Satisfaction, Employee Commitment and Employee Loyalty: A Research Framework

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## Abstract

This paper aims to develop a research framework with employee loyalty as the dependent variable (DV) and interpersonal trust, employee satisfaction and employee commitment as the independent variables (IVs). Matzler and Renzl (2006; 2007) had studied the relationships of the said IV – DV links in the Austrian service industry which showed some significant relationships. This paper is prepared to enhance the Matzler and Renzl's findings as well as to add the mediating effect of the leader support role in the said links using the Malaysian automotive industry as the target. In many countries worldwide, the automotive industry has played significant roles in the development of their respective economies and will continue to do so in future. Thus an appropriate research framework on employee loyalty is needed to study the automotive industry. However organizational management worldwide (including in Malaysia) is facing big problems with the new generation of workers, the so-called Generation Y (or Gen Y) workers. Their loyalty levels to their employers are said to be less compared to earlier generation of workers (Baby boomers and the Generation X). The research framework developed in this paper is earmarked to give more understanding on the phenomenon of employee loyalty in the workplace as the 21<sup>st</sup> century moves on.

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**Keywords:** Employee commitment, employee loyalty, employee satisfaction, interpersonal trust, literature review

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## 1. Introduction

As the world becomes more complex, managing businesses are becoming more problematic. If recruiting the right candidates for firms is becoming a big issue to organizational managers, retaining them is a much bigger issue. It affects all industries, both manufacturing and service sectors. This paper is focusing on the automotive industry and the Gen Y factor. The automotive industry is a major industrial and economic force worldwide. It makes 60 million cars and trucks a year, and they are responsible for almost half the world's consumption of oil. The industry employs 4 million people directly, and many more indirectly.

Despite the fact that many large companies have problems with overcapacity and low profitability, the automotive industry still retains a very strong influence and importance. The industry al providing well-paying jobs with good benefits, has heavy linkages with supplier industries (which gives it an oversized role in economic development), and has a strong political influence. As a developing country, Malaysia too has a growing automotive industry which is led by its national car company called "Perusahaan Otomobil Nasional Sendirian Berhad" (PROTON) [1].

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### 1.1 History and State of the Industry Worldwide

The industry is more than 100 years old. It started in France and Germany, and came of age in the U.S. in the era of mass production. Vehicle volumes, efficiency, safety, features and choice have grown steadily throughout the industry's history. It is so synonymous with 20th century industrial development, and so intertwined with its twin marvels, mass production and mass consumption, that it has been called the "industry of industries" [2].

However, all is not well in the automotive world. Worldwide, average margins have fallen from 20% in the 1920s to 5% now, with many companies losing money [2]. This poor profitability performance is reflected in the industry's market capitalization: despite its huge revenues and employment, the automotive industry accounts for only 1.6% of the stock market in Europe, and 0.6% in the U.S. There is a big contrast between the industry's lackluster financial success and its oversized social role, share of employment and political influence.

These facts mask a wide range of operational and financial performance [2]. Toyota, the most successful large auto company, has a market value 15 times larger than General Motors (Table 1).

Table 1 Top Automotive Assembly Companies

	Vehicle Sales Per Year (Millions)	Revenues (\$US Billions)
General Motors	9.17	192.6
Toyota	7.97	182.9
Ford	6.82	177.1
Volkswagen	5.24	119.1
DaimlerChrysler	3.85	187.5
Nissan	3.51	82.0
PSA/Peugeot Citroen	3.39	70.4
Hyundai Automotive	3.28	38.5
Honda	3.24	80.5
Renault	2.53	51.7

Source: [2]

The overall performance of the industry can be traced to overcapacity and mature markets in developed countries [2]. In the U.S., Europe and Japan, which account for 80% of world sales growth, have been stalling for many years. The natural response to slowing growth and increasing productivity is to reduce capacity. However, existing plants are very painful to scrap: mass production confers a strong cost advantage, which has traditionally encouraged very large and expensive plants. The result is excessive capacity worldwide. Even continuing consolidation in the industry is not resulting in capacity reduction.

### 1.2. History of Malaysian Automotive Industry

Rosli stated that the history of the Malaysian automotive industry dates back to the early 1960s when the Malaysian government developed a policy to promote an integrated auto industry to strengthen its industrial base and reduce its dependency on the agriculture sector [3]. In the 1960s and 1970s, the industry was fragmented and consisted of inefficient assembly plants. The country's progress to a supposedly well-developed manufacturing sector with regards to motor

vehicles as well as components can be traced back to numerous government incentives that were initiated in the mid-1980s and are said to remain so even until today [4]. As a result of the policies, two national car projects – Proton, which commenced operations in 1985 and Perodua, which was founded in 1994, took off and dominated the domestic automotive industry, equally commanding 29 per cent each in 2011[5]. The other non-national car segment was shared among the other auto manufacturers (Table 2).

Table 2 Market Share among Auto Manufacturers in Malaysia  
(as in March 2011)

No.	Market Share	Auto Firms
1	29 %	Proton
2	29%	Perodua
3	16%	Others
4	13%	Toyota
5	7%	Honda
6	6%	Nissan

Source: [6]

As of 2013, the Malaysian automotive industry employs a total of 550,000 employees and has contributed RM30 billion to Gross Domestic Product (GDP) [7]. In terms of performance for the period 2009 to 2013, auto sales increased from 536,905 units in 2009 to 652, 130 units in 2013 [7]. Some scholars such as Rosli [3, 4] considered the achievements of Malaysia's automotive industry so far were the results of the government policies and industrial plans. Among them were the first National Automotive Policy (NAP), launched on 22 March 2006 (aimed at market liberalization) and the second NAP (NAP2) which was launched on 21 January 2014 earmarked to turn Malaysia into an energy efficient vehicle (EEV) hub in South-east Asia [8]. Proton. As the national car company would be expected to play a bigger role in the NAP2 and would need to ensure it is not losing its talents.

### *1.3. Proton and the Generation Y Employees' Potential Problem*

As mentioned before, “Proton” was the Malaysian-government initiated national car company. It started as a joint-venture company between Mitsubishi Corporation of Japan and the Malaysian government (under HICOM, a government investment holding company). In the mid-80s many young engineers and technicians were recruited and sent to Mitsubishi of Japan for training. The Japanese influence in terms of engineering and human resource training (the Mitsubishi influence in the case of Proton) has been studied widely [9, 10, 11]. In addition to the technical staff, other supporting staffs were also recruited but they were trained locally at various times. All of these employees helped the company to grow. But slowly, the structure of the company employees began to change (from 1990 to 2013) with the influx of the “Generation Y” employees. Their work motivation and attitudes were said to be different as compared to the earlier generation of workers. According to Sharif and Abu Bakar, currently Proton has more than 1,300 workers at various levels; 30 percent of them are “Baby Boomers” while 70 percent were the “Generation Y” (Gen Y) [1]. Managing the Gen Yers is perceived to be problematic [12].

The “Generation” phenomenon has become a big issue in the corporate world since the early 2000 especially the Gen Y phenomenon [12]. Since then, several scholars had attempted to explore their meanings based on timeline [13, 14, 15, 16, 17, and 18]. The exact timeline (or year of birth) to categorize workers in organizations differs among authors; but these differences are marginal. Zemke et al. seem to provide an acceptable categorization of workers [18](Table 2). Baby Boomers are those born between 1943 and 1960; Gen Xers are those born between 1961 and 1980 while Gen Yers are those born between 1981 and 2000.

Table 2 Worker Generation Categories

No.	Label of the Generation Group	Period (Year of Birth)
1	Baby Boomers	1943 - 1960
2	Gen Xers (Gen X)	1961 - 1980
3	Gen Yers (Gen Y)	1981 - 2000

Source: [18]

Some scholars argued that employees of the Gen Y group are not as loyal to their employers as those of Baby Boomer and Gen X groups [12, 14, and 17]. They are said to be loyal more to their careers than to their employers [13]. If they receive a better job offer from other employers, they will most probably move. Of course, some Asian scholars are skeptical on the suitability of the definition of ‘Gen Y’ as used in the West when applied to Asian firms such as Proton and Perdue [34, 37]. The authors believe in the already globalized environment, the cultural difference in usage of terminology like “Gen Y” is slowly converging [20]. This should not be a cause for concern in doing any academic study. For Proton’s management, this “Gen Y” issue should be of grave concern to them. This paper aims to review the relevant concepts and develop a research framework for Malaysia’s automotive industry.

## 2. Literature Review

### 2.1. Employee Loyalty – The Dependent Variable

According to Antoncic and Antoncic and Sharif and Abu Bakar, there is little or no agreement on the definition of ‘employee loyalty’ [1, 20]. Branding the types of employee loyalty as employee conduct which is ‘disloyal’ can be counterproductive [21]. Instead, it may be more productive to view employee behavior as part of an exchange process. In the new millennium, employees will no doubt focus on potential rewards and employers will find that their workforce is more ‘loyal’ if they, too, provide advantageous outputs in return for getting the employees; inputs.

Over time, the studies on employee loyalty were dominated by the ethics literature [22, 23, 24, 25, 26, 27, 28, 29, 30] and the management literature [31, 32, 33, 34, 35, 36, 37]. This would imply that the issues related to the concept of ‘employee loyalty’ are concerned with the “moral issues” of human behavior at the workplace. The issues extend beyond the reward aspect of work employment. If the management of Proton wants to increase efforts to retain their Gen Y employees, this important aspect needs to be better understood. Some study along this line would help them tremendously. For this paper, the works of Meztler and Renzl [35, 36] will be used as the foundation for the proposed framework as the constructs developed by them are closely related to the authors’ proposed study.

### 2.2. Interpersonal Trust – Independent Variable 1

One important determinant which could affect employee loyalty (whether in Proton or any other organization) is interpersonal trust among employees and between employees and supervisors (or managers) [1, 35, and 36]. In the social context, trust has several connotations [38]. Definitions of trust [39, 40] typically refer to a situation characterized by these aspects: one party (trustor) is willing to rely on the actions of another party (trustee); the situation is directed to the future. In addition, the trustor (voluntarily or forcefully) abandons control over the actions performed by the trustee. As a result, the trustor is uncertain about the outcome of the other’s actions; they can only develop and evaluate expectations. The uncertainty situation involves the risk of failure or harm to the trustor if the trustee does not behave accordingly (or as required by the trustor).

Trust can be attributed to the relationships between people. It can be demonstrated that humans have a natural disposition to trust and to judge the trustworthiness that can be traced to the activities of the human brain. Some studies indicate that trust can be altered, for example by the application of a substance called ‘oxytocin’ [41]. In the social sciences, the

subtleties of trust are a subject of ongoing research. In sociology and psychology, for instance, the degree to which one party trusts another is a measure of belief in honesty, fairness, or benevolence of another party. The term ‘confidence’ is more suitable for a belief in the competence of another party. Thus in circumstances involving the Gen Y workers, the supervisors (representing the employers) need to be careful in their interactions. If these Gen Y workers perceived that they are not being treated honestly, they would simply leave Proton (not because they are not paid well). It was reported that Proton employees are well paid compared to workers of other sectors in Malaysia [1].

### *2.3. Employee Satisfaction – Independent variable 2*

Apart from interpersonal trust, another factor which could affect employee loyalty is employee satisfaction [35]. Research on employee satisfaction is a well-studied area [42, 43, 44, 45, 46, 47]. But research on the links between employee satisfaction and employee loyalty has been scarce [48, 49, 50]. These few studies claimed to have verified the links between employee satisfaction and employee loyalty in service oriented organizations. Employee satisfaction and employee loyalty are said to be the drivers of productivity, efficiency and profit in business organizations. But no study has established the links between employee satisfaction and employee loyalty in manufacturing-based organizations.

Job satisfaction or employee satisfaction has been defined in many different ways by different researchers. One of the most widely used definitions in organizational research is that of Locke, who defines job satisfaction as “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (51, p. 1304). Spector simply defined it as “how content an individual is with his or her job” [52]. Hulin and Judge, on the other hand, stated that job satisfaction includes multi-dimensional psychological responses to an individual’s job, and that these personal responses have cognitive (evaluative), affective (or emotional) and behavioral components [53].

### *2.4. Employee Commitment – Independent Variable 3*

The last factor under review that could affect employee loyalty is employee commitment. This is also a well-studied research area [54, 55, 56, 57, 58, 59]. But studies on the links between employee commitment and employee loyalty are still scarce [60, 61, 62]. The proposed study can look further into this aspect. There are several definitions of employee commitment given by scholars. Employee Commitment is the psychological attachment and the resulting loyalty of an employee to an organization. According to Kanter, there are 3 types of EC: Continuance, Cohesion and Control Commitment [62]. According to Meyer and Allen, there are three mindsets for an employee to be committed to an organization: 1. Affective Commitment: positive feelings of identification with, attachment to, and involvement in the organization; 2. Normative Commitment: feelings of obligation to remain with the organization resulting from values and beliefs; 3. Continuance Commitment: the result of the perceived cost associated with leaving [63].

### *2.5. Leader Support as a Mediator*

As usual for any analysis on the relationships between independent variables and dependent variable, it would be said most of the time; their relationships are not direct. They would either be mediated or moderated by some intervening variable. In this case, the variable concerned would be treated as a mediator. The mediator under review is “leader support” [64, 65].

According to McIntosh, leader support is important for alleviating or preventing dysfunctional effects of stress at work [66]. Additionally, task characteristics serve as a supportive function. In her study, data from 97 nurses in a pediatric hospital were used to compare the utility of the path-goal theory of leadership, social support theory and substitutes for leadership theory for explaining the impact of leader support on satisfaction and anxiety responses of workers. In addition, the relative impact of leader support and enriched tasks on workers affect was explored. Results suggest that social support theory was able to predict most findings regarding leader support, and that leader support is more important than task in the predictions of employee satisfaction and autonomy is more important to relieving anxiety of workers. This includes employee loyalty.

### 3. Research Framework and Its Justifications

Based on the literature review, the following research framework was developed:

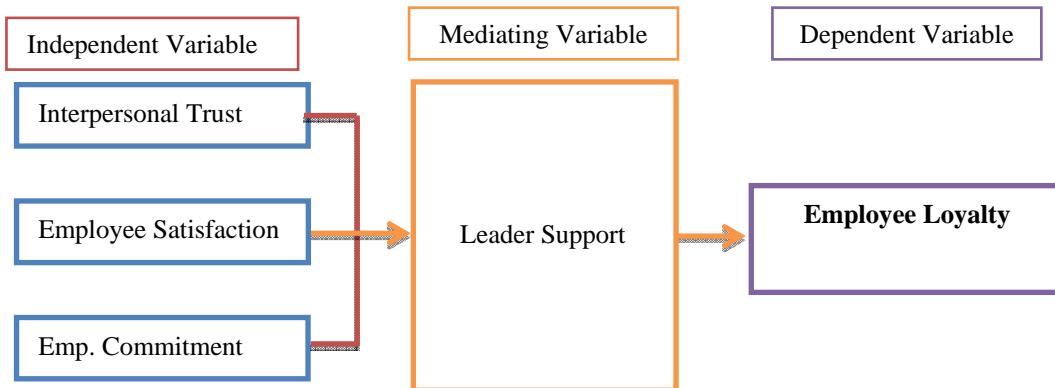


Figure 1 the Research Framework

Figure 1 shows the linkages between the dependent variable, the mediating variable and the independent variables. Employee loyalty is designated as the dependent variable while the three independent variables are interpersonal trust, employee satisfaction and employee commitment. The links between the independent variables and the dependent variable are expected to be mediated by a mediating variable, namely “leader support”. This framework benefited from the earlier framework used by Matzler and Renzl which used only interpersonal trust and employee satisfaction as the independent variables and employee loyalty as the dependent variable [35, 36]. However, their framework did not utilize any mediating or moderating variable.

This literature survey in the paper had identified and reviewed concepts related to employee loyalty. Literature survey is also widely known as literature review [67, 68, and 69]. Gash states that a literature survey is a “systematic and thorough search of all types of published literature as well as other sources including dissertation, theses in order to identify as many items as possible that are relevant to a particular topic [68, 69].” Gash added that the significance of the literature can be as follows [69]:

- to discover what information exists in one's topic of interest;
- to form a starting point for one's own work;
- to give scholarly support authority to one's work;
- to make effective use of one's time by focusing on appropriate resources and
- to avoid duplication

The findings from the review of the literature are as follows:

- The dependent variable reviewed was “employee loyalty”. Based the literature review, it was found that “employee loyalty” is suitable to be investigated as a dependent variable [35, 36];
- The independent variable 1 reviewed was “interpersonal trust”. The variable was found to be suitable to be used as an independent variable [35, 36];
- The independent variable 2 reviewed was “employee satisfaction”. The variable was also found to be suitable to be used as an independent variable [36, 45, 51];
- The independent variable 3 reviewed was “employee commitment”. The variable was also found to be suitable to be used as an independent variable [62, 63];
- The mediating variable reviewed was “leader support”. The variable was also found to be suitable to be used a mediator [64, 65, 66];

The research framework comprising employee loyalty as the dependent variable, interpersonal trust, employee satisfaction and employee commitment as the independent variables and finally leader support as the mediator is found to be suitable for use to investigate the employee loyalty phenomenon in Malaysia’s automotive industry.

#### **4. Conclusion**

This paper has reviewed some concepts related to employee loyalty (dependent variable). Employee loyalty is an established research area and construct [31, 32, 70], but the emergence of the Gen Y phenomenon where some scholars claimed that employees from this group are more loyal to their careers rather than to their employers, then the issue of employee loyalty has been given a new lease of life [12]. It should be studied further. The independent variables for this paper were identified as interpersonal trust, employee satisfaction and employee commitment. Matzler and Renzl had studied interpersonal trust and employee satisfaction in relation to employee loyalty before [35, 36], but employee

commitment was not part of their research framework. Also, since the links between independent variables and the dependent variable are perceived to be indirect, a mediator would intervene in between the two sets of variables. The suitable variable was deemed as “leader support”. The identified variables are then placed in the authors’ research framework. The framework is now ready for use to investigate the employee loyalty phenomenon in Malaysia’s automotive industry. This is expected to add value to the existing Malaysia’s Automotive Industry literature [9, 10, and 71]. In addition, upon completion of the proposed study later, the findings on the “employee loyalty” issue (especially among the Gen Y employees) would benefit the leaders of the automotive industry in Malaysia (and probably in Asia) in managing the ‘Gen Y’ phenomenon.

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# The Moderating Effect of Perceived Organizational Support on The Relationship between Leadership Style, Employee Islamic Ethics, Employee Innovative Behavior, and Islamic Learning Organization Outcome: A Research Framework

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## Abstract

The paper aims to develop a research framework on the premise of an Islamic learning organization (ILO). Senge (1990), an American scholar, was credited for introducing the notion of a ‘learning organization’ (LO) to the academic and professional literature. Learning organizations develop as a result of the pressures facing modern organizations and enables them to remain competitive in the business environment. Over time, there are several definitions and typologies of a learning organization coined by scholars. Nevertheless Senge’s (1990) notion of a learning organization remains as an important source of reference. Senge’s LO model has five main characteristics: systems thinking, personal mastery, mental models, a shared vision and team learning. These principles can be and have been applied to many organizations worldwide (including the Islamic world). However, lately some scholars have voiced their contention that learning organization concept needs to be seen from the Islamic perspective as organizations following the Islamic principles worldwide have different premises of operations compared to Western-based organizations. This paper is looking at developing a research framework with the Islamic learning organization outcome as the dependent variable and leadership style, Islamic ethics and innovative behavior as the independent variables. In addition, the said relationships are moderated by the perceived organizational support (POS).

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**Keywords:** Innovative behavior; Islamic ethics; Islamic learning organization outcome; leadership style; learning organization; perceived organizational support.

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## 1. Introduction

One of the most outstanding management ideas created in the 20<sup>th</sup> century is the concept of ‘learning organization’. It was created by Peter Senge, an academic from the School of Management in Massachusetts Institute of Technology (MIT), USA in 1990. He was virtually unknown outside the academic world until he laid down the foundation showing organizations how to use five disciplines to ensure continued growth and prosperity. His starting point is that no firm, however big or successful, is guaranteed to survive for a long time [1]. According to him, the average life of a Fortune 500 company in USA was around 40 years. The central questions that he sets out to answer are: how can companies that have excelled and reached the top collapse suddenly (such as People Express Airlines) and why do other companies survive and prosper? The answer that he found was that the companies that managed to survive over time have succeeded in creating themselves into ‘learning organizations’ [1].

But Senge’s conception of a learning organization (LO) is meant for Western-based organizations or capitalistic

organizations. An emerging realization among scholars lately is that not all organizations worldwide are capitalistic organizations. Some organizations in Muslim countries as well as in the West operate on Islamic management principles [2]. This paper aims to review some literatures on learning organizations from the Western literature and also from the Islamic literatures and then develops a suitable research framework to study organizations in Muslim context.

## 2. Literature Review

### 2.1. Learning Organization (LO) from the Western Origin

Over time, several definitions of learning organization have been developed by scholars. But this paper would like to highlight just seven prominent definitions which have been widely cited (Table 1). The concept of learning organization was made popular through Peter Senge's (1990) publication called 'The Fifth Discipline'. He defined a learning organization as an organization which encourages continuous learning among its employees. Other scholars such as Garvin, Pedler *et al.* and Watkins and Marsick added other elements such as the existence of learning climate and transformation among the organization's members on a continuous basis that would assist in the practices of a learning organization [1, 3, 4, 5].

Table 1 Sample definitions of learning organization

Author	Definition of learning organization	Learning organization constructs
Senge (1990)	An organization where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn	Personal mastery Mental models Shared vision Team learning Systems thinking
Garvin (1993)	An organization skilled at creating, acquiring and transferring knowledge and at modifying its behavior to reflect new knowledge and insights	Systematic problem solving Experimentation Learn from past experience Learning from others Transferring knowledge
Pedler <i>et al.</i> (1991)	An organization that facilitates learning for all its members and consciously transforms itself and its context	A learning approach to strategy Participative policy making Informating Formative accounting and control Internal exchange Reward flexibility Enabling structures Workers as environmental scanners Intercompany learning Learning climate Self-development opportunities
Watkins and Marsick (1996)	An organization that is characterized by continuous improvement and the capacity to transform	Continuous learning Dialogue and inquiry Team learning Embedded system Empowerment Leadership Financial performance Knowledge performance

Source: [6, 7]

These authors believe that in spite of the diverse increase in the learning organization models over time, Senge's model seems to be most the most widely cited by other scholars. As such, the authors of this article will give emphasis on the review of this particular model. According to Senge, a learning organization exhibits five main characteristics: systems

thinking, personal mastery, mental models, a shared vision, and team learning [1].

**Systems thinking.** The idea of the learning organization developed from a body of work called systems thinking. This is a conceptual framework that allows people to study businesses as bounded objects. Learning organizations use this method of thinking when assessing their company and have information systems that measure the performance of the organization as a whole and of its various components. Systems thinking states that all the characteristics must be apparent at once in an organization for it to be a learning organization. If some of these characteristics are missing then the organization will fall short of its goal. The characteristics of a learning organization are factors that are gradually acquired, rather than developed simultaneously [3, 4].

**Personal mastery.** The commitment by an individual to the process of learning is known as personal mastery. There is a competitive advantage for an organization whose workforce can learn more quickly than the workforce of other organizations. Individual learning is acquired through staff training and development however learning cannot be forced upon an individual who is not receptive to learning. Research shows that most learning in the workplace is incidental, rather than the product of formal training, therefore it is important to develop a culture where personal mastery is practiced in daily life. A learning organization has been described as the sum of individual learning, but there must be mechanisms for individual learning to be transferred into organizational learning [5].

**Mental models.** The assumptions held by individuals and organizations are called mental models. To become a learning organization, these models must be challenged. Individuals tend to espouse theories, which are what they intend to follow, and theories-in-use, which are what they actually do. Similarly, organizations tend to have ‘memories’ which preserve certain behaviors, norms, and values. In creating a learning environment it is important to replace confrontational attitudes with an open culture that promotes inquiry and trust. To achieve this, the learning organization needs mechanisms for locating and assessing organizational theories of action. Unwanted values need to be discarded in a process called ‘unlearning’ [3, 5].

**Shared vision.** The development of a shared vision is important in motivating the staff to learn, as it creates a common identity that provides focus and energy for learning. The most successful visions are built on the individual visions of the employees at all levels of the organization, thus the creation of a shared vision can be hindered by traditional structures where the company’s vision is imposed from above. Therefore, learning organizations tend to have flat, decentralized organizational structures. The shared vision is often to succeed against a competitor, however Senge states that these are transitory goals and suggests that there should also be long term goals that are intrinsic within the company [3].

**Team learning.** The accumulation of individual learning constitutes team learning. The benefit of team or shared learning is that staff grows more quickly and the problem solving capacity of the organization is improved through better access to knowledge and expertise. Learning organizations have structures that facilitate team learning with features such as boundary crossing and openness. Team learning requires individuals to engage in dialogue and discussion; therefore team members must develop open communication, shared meaning, and shared understanding. Learning organizations typically have excellent knowledge on management structures, allowing creation, acquisition, dissemination, and implementation of this knowledge in the organization [4].

## *2.2. Learning Organization from the Islamic Perspective*

Scholars have viewed that the adaptation of learning organization in different contexts has become a well-discussed topic of discussion. However, some scholars have stated that not much has been written on learning organization in a religious context [2, 8]. Ahmad has attempted to study on how Islam views the concept of learning organization [9, 10]. Apart from that, Sharif recently studies the determinants of Islamic learning organization and suggests that the learning organization from Islamic perspective should be labelled as ‘Islamic Learning Organization’ to reflect its growing importance [2] and that it is slightly different than the earlier learning organization created by Senge and other Western models [1, 3, 4, 5]. What can be said is that the learning organization in the Islamic perspective or the Islamic learning organization (ILO) is a slowly emerging research area within the learning organization literature. Organizations under ILO are Syariah-compliant, i.e. they follow the Islamic rules and regulations as laid down in the Quran, the holy book in Islam.

### 2.3. Islamic Learning Organization Outcome

If the concept of Islamic learning organization (ILO) can be accepted by scholars, then one aspect of the ILO that needs to be investigated is to determine the ILO outcome so that it is measured. The outcome of ILO can be viewed from the Islamic management principles that it follows. In Islam, the ‘Tauhid’ (the deep practice) is important [11, 12]. ‘Tauhid’ is about relations [12]. It is divided into two types: 1) *Hablumminallah* – relationship between mankind and God and 2) *Hablumminannas* – relationships between human beings [13]. The focus on the development of people in society and in organizations is given high importance in Islam [14].

People are important to society and organizations as they are regarded as leaders on earth (Khalifah), a role designated by God [15, 16]. To carry out these duties, human beings must be abided by some rules (designated as Islamic management principles)[17, 18]. These principles can be divided into five: 1) Consultation (*Syura*) in all decision making; 2) Discipline; 3) Cooperation; 4) Justice in work distribution and 5) Trustees on earth [19, 20].

### 2.4. Leadership Style (LS) and Islamic Learning Organization

Leadership styles are the properties that belong to the people who are entrusted with the role and responsibilities of leading others in the organizations and societies in the world. They can be categorized into five types: 1) autocratic styles; 2) democratic styles; 3) laissez faire styles; 4) transformational styles and 5) transactional styles [21, 22]. The autocratic styles are used by leaders who make decisions for the followers; the democratic styles involve leaders and the followers making joint decisions; the laissez-faires involve leaders empowering the followers to make decisions in organizations; the transformational styles involve leaders inspiring the followers to join them in transforming their organizations, and the transactional styles involve leaders and the followers to make their respective decisions in their daily interactions to solve problems. The leadership styles of leaders (or supervisors) in organizations will affect the learning process the learning outcome of organizations. If we are talking about Islamic learning organizations (ILO), we are looking at supervisors' leadership styles which are in line with the teachings of Islam [21, 22].

### 2.5. Employee Islamic Ethics (EIE) and Islamic Learning Organization Outcome

The Islamic ethics here refers to the ethical values hold by Muslim employees whose organizations are regarded Muslim-based. Essentially, ethical philosophy provides the basis for various contemporary concepts of work beyond conventional business objectives of profit making. Meanwhile, ethical behavior is concerned with doing the right thing or acting fairly to others [19]. The foundation of Islamic ethics is the Muslim understanding and interpretations of the Quran teachings, the practices of Prophet Muhammad (PBUH)(known as the *Sunnah*) and the practices of his immediate successors (especially the caliphate *Khulafa Ar Rashideen*) and is passed down to all Muslims more than 1,000 years ago, which always bring Muslims to submit to Allah (God)[10, 14, 19]. The main motive of Islamic work ethics is the notion that every human being is required to practice the goodness and forbid evil in all aspects of life (including in organizational life)[19]. Thus the employee work ethics (i.e. Islamic work ethics) would influence the learning process of employees in organizations as well as their learning outcome in the organizations (Islamic learning organization outcome)[2].

### 2.6. Employee Innovative Behavior (EIB) and Islamic Learning Organization Outcome

The ability to continuously innovate and improve products, services, and work processes is currently crucial for organizations' success and survival [23]. Individual employees need to be both willing and able to innovate if a continuous flow of innovations is to be realized [24]. Innovative work behavior (IWB) typically includes exploration of opportunities and the generation of new ideas (creativity related behavior), but it could also include behaviors directed towards implementing change, applying new knowledge, or improving processes to enhance personal and business performance (implementation oriented behavior)[25, 26].

Innovation theory has repeatedly stressed that innovation is broader than only creativity and also includes the implementation of ideas [27]. Thus, IWB does not only include idea generation, but also behaviors needed to implement ideas and achieve improvements that will enhance personal and business performance. Subsequently, Farr and Ford define innovative work behavior (IWB) as an individual's behavior that aims to achieve the initiation and intentional introduction

(within a work role, group or organization) of new and useful ideas, processes, products, or procedures [28]. The measure of IWB developed by de Jong and Den Hartog then captures both the initiation and implementation of creative ideas [24]. Caldwell terms these innovative activities as “learning” within organizations [29, 30]. If we are looking at Islamic learning organization (ILO) outcome, then we are looking at the impact of innovative work behaviors of employees on the practices based on the principles of Islamic management in the organizations concerned such as 1) Consultation (*Syura*) in all decision making; 2) Discipline; 3) Cooperation; 4) Justice in work distribution and 5) Trustees on earth [19, 20].

## 2.7. Perceived Organizational Support and Islamic Learning Organization Outcome

The concept of perceived organizational support (POS) was created by Eisenberger, Huntington, Hutchinson and Sowa [31]. It describes the employee’s perception about organizational commitment with respect to his or her welfare [32, 33]. It also refers to employees’ belief about the degree to which the organization cares about their well-being and values their contribution. It is also defined as a social exchange relationship which is the resultant from the exchanges between the organization and its employees [31]. Based on the organization support theory, development of perceived organizational support is encouraged by employees’ intention to assign the human-like characteristics to organization [34]. The employees who perceive a high level of organizational support believe that the organization cares about them and values their cooperation.

Frequently, researchers have mentioned the importance of potential role of employees’ perception on organizational support [35]. Eisenberger et al. argue that the different factors such as organizational rewards, which are presented to employees in the form of appreciation, money, encouragement, and credit, are effective forms of perceived organizational support [31]. All these rewards would imply that employees are valuable to organizations concerned. Thus POS has the potential to moderate between the antecedents and consequences in a situation [34, 36, 37].

## 3. Research Framework

The research framework comprises the Islamic learning organization (ILO) outcome as the dependent variable, leadership styles, employee Islamic ethics, and employee innovative behavior as independent variables and perceived organizational support as the moderating variable (Figure 1).

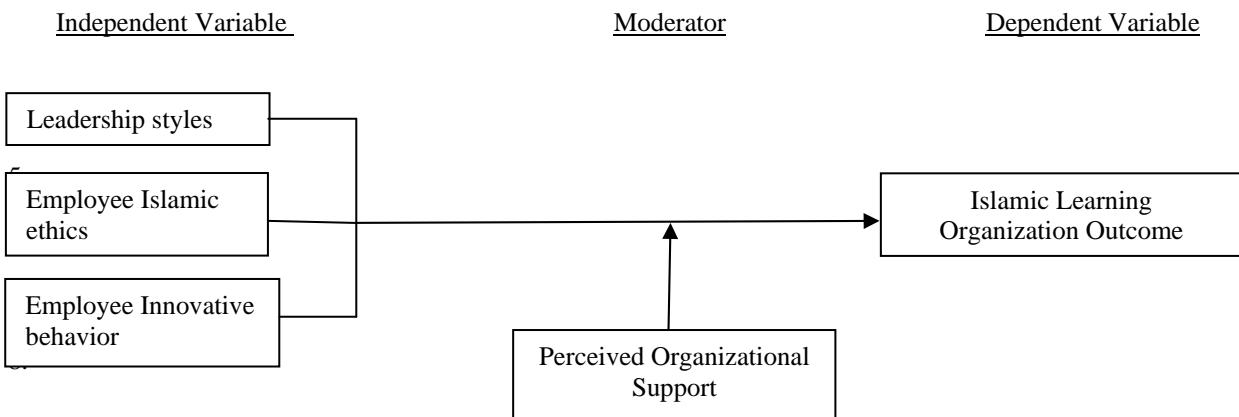


Figure 1 the Research Framework

## 4. Conclusion

The aim of the paper was to develop an Islamic learning organization research framework. This paper has attempted a literature review of the related concepts relating to the notion of learning organization. The review of the literature on learning organization from Western context was first made based on the strong works of Senge, Garvin, Pedler et al. and

Watkins and Marsick [1, 3, 4, 5]. It was found that in spite of the growth of several learning organizations over time, several scholars believe that Senge's learning organization model is widely cited by researchers [40, 45, 48, 47, 48]. Based on Senge's work, the review then proceeds to look at the works of scholars who are involved with research on learning organization from the Islamic perspective through works of Ahmad and Kazemian and Ghamgosar [8, 10, 11] and the Islamic learning organization perspective through the works of Sharif [2]. The act of developing the concept of Islamic learning organization is based on the principles of Islamic management which are espoused and developed by earlier Muslim scholars such as Mohiudin, Sulaiman et al., Zangouinezhad, Ahmad, Branine and Pollard, Abbasi, Hassi and Najfbagy and Doroudi [12, 16, 17, 18, 19, 20, 38, 42, 43]. In addition, the works of some Western scholars who are interested in Islamic management such as Weir and Ortenblad are also examined [8, 17]. It should be pointed out that Ahmad's PhD thesis had pioneered and developed her Islamic perspective of learning organization based on Senge's framework [9, 10]. But she highlighted that Senge's model is more suited for Western contexts and that an Islamic learning organization is needed by organizations which are operating in Muslim contexts [16, 20]. This paper develops further the notion of the Islamic perspective learning organization based on Ahmad's works. However, this paper called the organization is concerned as the Islamic learning organization, which offers greater potential to be developed deeper.

Apart from reviewing the concept of learning organization and the concept of Islamic learning organization, the paper also looks at the possible independent variables and also the moderating variable. At the end of the paper's review, it is thought that the research framework developed has a strong foundation comprising perceived organizational support as the moderating variable, the Islamic learning organization outcome as the dependent variable, and three variables – leadership styles, employee Islamic ethics, and employee innovative behavior, as the three independent variables. The research framework is considered viable and it can be used to study the private Islamic higher institutions of learning (HILs) in Malaysia.

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# The Role of a Key Account Management's Code of Conduct in Improving Learning Culture of the Account Managers: The Case of VICTORI Code of Conduct at TELKOM Indonesia

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## Abstract

Key Account Management (KAM) is a term started as way of improving selling techniques to a few key customers/major accounts (Barrett, 1986, Millman and Wilson, 1995). It is more strategically oriented than sales-oriented or relationship-oriented because the importance of the key customers. The strategies to keep, sell, and make profit with key customers cannot be short-term sales driven (Gosselin and Heene, 2003). By implementing Key Account Management, a supplier company will benefit from KAM relationship in terms of business growth (e.g. selling to new customer division, retaining customers, identifying more opportunities with customers) and cost reduction (e.g. shortening learning curve, avoiding formal tenders, improving sales forecasting) (Ryals and Holt, 2007).

This study uses a qualitative design with an observation and document analysis to discuss the case of a particular key account management code of conduct at TELKOM Indonesia in order to improve the learning culture of the Account Managers. VICTORI code of conduct as an improvement of The Account Management Way 1-3-5 is compared with two theoretical concepts of Account Management (Millman & Wilson 2005, Woodborn 2003). One of the key improvements in the new code of conduct is the mission to provide an ecosystem solution to business customers instead of a generic ‘dream plan’. It shows a clear direction on the new focus of key account management at TELKOM Indonesia. Another key improvement is the change of terminology from ‘partner’ to ‘synergy’. It reflects the vision of the idealistic relational model of KAM from the level of Partnership KAM toward Synergistic KAM that allows a seamless integration between TELKOM and key business customers in creating synergistic/joint value in the marketplace.

Finally, the code of conduct approach plays an important role in nurturing the capabilities of an account manager in fulfilling key customers’ need. There are three orders of customers’ need that have to be fulfilled in Key Account Management: Product need, Process need, and Facilitation need (the way in which business is done, rooted in joint problem resolution and mutual adaptation) (Millman and Wilson, 1996). A professional certification process that involves observation of the practices of account managers ensures the institutionalization or internalization of the key account management code of conduct.

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Keywords: key account management; code of conduct; learning culture

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## 1. Introduction

Business to business marketing is a branch of marketing that focuses on business customers. In a telecommunication industry, the requirement of business customers is more complex than retail customers. The telecommunication needs of business customers mainly consist of: basic telephony services; internet and data communication services; software

and application services; and other value added services. Identifying and fulfilling these requirements are the main concern of a telecommunication business marketing unit.

Apart from the complexity in product specification, the decision making process in the business segments usually involves more than one person, known as decision making unit. Personnel involved in a decision making unit may vary across industries but mainly depends on the business size of the customer. Typically it consists of: the user of the services, the purchasing people; and the finance personnel.

Responding to the complexity in the product and the sales decision involved, a company usually employs a relationship approach to business customers by maintaining relationships with key decision makers and ensuring continuous efforts in monitoring the company's business objectives.

The implementation of Key Account Management (KAM), an approach aimed at building relationships with key business customers or key accounts, can maximize the benefit of long-term relationships in business to business marketing (Gounaris & Tzempelikos 2012, Ryals & Holt 2007, Gosselin & Heene 2003, Millman & Wilson 1995).

TELKOM Indonesia has developed key account management since the early 1990s. It started with a task force allocated in each branch deploying relationship marketing approaches with business customers in their allocated territory. The special task force, named Special Services Unit, worked based on an isolated regional based database of business customers with revenue growth as their main metrics.

In the 2000s, a transformation program started in the company along with the strategy known as 'on becoming a customer centric company'. The account management improvement program was one of the core transformation projects. It resulted in the formation of a nation-wide approach of key account management that managed all key business customers under a single unit, Enterprise Service Division. Latest financial performance report shows the dominant contribution of the segment to the company's overall performance.

The adoption process of a management approach into a company operation can be analyzed using diffusion theory in which the elements of communication channel, time, social norms, and the idea itself will determine how and how long the adoption process will take place (Rogers 1995). Furthermore, technical works to provide detail specification of the approach are required in order to guide operationalization of the management approach. Perkmann and Spicer (2008) formula of a management approach institutionalization provides details of technical works to ensure accomplishment of the process. It mainly consists of: conceptualization, standardization, alignment with other common practices, and education.

The key progress in the key account management implementation in TELKOM is the main theme discussed in this article with a focus on how the company uses code of conduct as their tools in ensuring improvement in KAM practices. Theories of diffusion and institutionalization will be used as theoretical framework.

The subsequent parts of the article present theoretical framework; methods; findings of the study; discussion; and conclusion.

## **2. Theoretical Framework**

### ***Key Account Management (KAM)***

Key Account Management (KAM) is a term started as a way of improving selling techniques to a few key customers/major accounts (Millman & Wilson 1995, Barrett 1986). It is more strategically oriented than sales-oriented or relationship-oriented because of the importance of the key customers. The strategies to keep, sell, and make profit from key customers cannot be short-term sales driven (Gosselin & Heene 2003). By implementing KAM, a supplier company will benefit from KAM relationship in terms of business growth (e.g. selling to new customer division, retaining existing customers, and identifying more opportunities with customers) and cost reduction (e.g. shortening learning curve, avoiding formal tenders, and improving forecasting) (Ryals & Holt 2007). There are three orders of

customer need that have to be fulfilled in KAM: Product need, Process need, and Facilitation need (Millman & Wilson 1996).

Another term that is closely related with KAM is relationship marketing. The term Relationship Marketing was first introduced in marketing literature in 1980s as an approach in service industries. Since then, it attracts many researchers to either challenge or support its role in marketing as it moves the definition and characters of marketing from product orientation to customer orientation. Marketing management that is based on relationships is now a common practice across industries (Buttle 1996), and even in unlikely conditions of the retail market and internet based marketing (Egan 2000, Keating et al. 2003).

An expanded relationship building process for business-to-business marketing is suggested to follow particular steps involving internal focus of goal setting, strategy and culture formulation, defined alignment between strategy and culture, and implementation of customer service-oriented culture, as well as external focus of marketing strategy implementation social bond with customers and added value to the relationship. Bonding with customers is a dynamic process that can start with a basic force of the need and supply of products/services and then advance to social bonding involving personal relationships between parties from the buyer and the seller organizations (Cann 1998).

Millman and Wilson (1995) formulate stages of relational model of KAM as described in Table 1. Moving from pre-KAM to synergistic-KAM means more bonding with key contacts within the customer's organization and requires a move 'towards more relational and consultative approaches' (p. 16). The key account manager plays a significant role in organizing total offers to the customers and facilitating exchange process across customer and seller organizations. This model is also supported by an empirical study by McDonald, Millman and Rogers (McDonald et al. 1997) with 11 pairs of buyer-seller relationships with a conclusion that account manager trustworthiness is one of the main customers' concerns. The other approach on the KAM relational model is based on typology such as dyadic (pair of seller-buyer) and collaborative (McDonald 2000) and bargaining power (Toulan et al. 2006). However, the former did not provide any empirical evidence while no specific stages of relationship were found in the latter approach.

Table 1. Relational Model of KAM (Millman & Wilson 1995)

<b>Stage</b>	<b>Key relationship activities</b>
Pre-KAM	Gather basic information, provide basic services
Early-KAM	Explore more opportunities, provide tentative service customization
Mid-KAM	Frequent cross-boundary contact and the review moved to more senior level in buyer and seller organization
Partnership-KAM	Share sensitive commercial information
Synergistic-KAM	Create joint value in the marketplace

#### ***Diffusion of Idea & Institutionalization of a Management Approach***

Rogers (1995) deals with the question of how a new idea is adopted by a group of people. He identified the influential elements of communication process, called diffusion. Diffusion is composed of four elements: the idea, the channel, time, and the social system. These elements determine how an idea is absorbed or in some cases abandoned and how long the adoption process is.

In order for an idea to be successfully adopted, the issue of social norm compatibility has to be addressed in presenting the idea and selecting the communication channel. Imitating the peers or the interpersonal network is the very basic process of the diffusion in a social group. Therefore, identifying and reaching the center of the network, the opinion leader, is necessary to expedite the process (Rogers 1995).

Perkmann and Spicer (2008) present arguments about the way a management technique is institutionalized. An institutionalization of a management fashion involves a group of skilled actors working autonomously in three pillars of the institution: rules and regulation; cognitive schema; and normative framework. Three types of work involve: political, technical, and cultural. Those three types of works are described as follows:

1. Political works serve the institutionalization process by ensuring that the rules and regulations are supporting the new practice promoted by the management technique.
2. Technical works provide detailed specifications of the technique that can be operationalized in the organization and also resources required. It includes theorization, standardization, alignment with other common practices; and education.
3. Cultural works shape the practices of the fashion to be accepted by wider participants. It involves professionalization and changes in the professional boundaries.

### ***Code of Conducts***

A code of conduct is usually used by an organization to encourage specific ethical behaviors. Adoption of an ethical code of conduct is an improvement step in building an ethical climate in an organization (McKinney et al. 2010). The presence of an ethical conduct is also reported to be able to improve the quality of judgment of business professionals in an organization (Pflugrath et al. 2007).

### **3. Purpose of the Study and Study Method**

The study seeks an understanding on the role of code of conduct in a KAM organization. It will also serve as an investigation on the importance of learning in KAM that is developed through institutionalization and diffusion using the code of conduct.

The study used document analysis and observation as primary methods to be able to position the implementation of KAM and the role of code of conduct in promoting learning in the Enterprise Services Division of TELKOM Indonesia. The duration of observation reported here is the implementation period of 2009 – 2012, a transformation phase in the implementation of KAM in TELKOM in which services offered to business customers are mainly customized solutions based on understanding of the customer's business process and their industrial value chain.

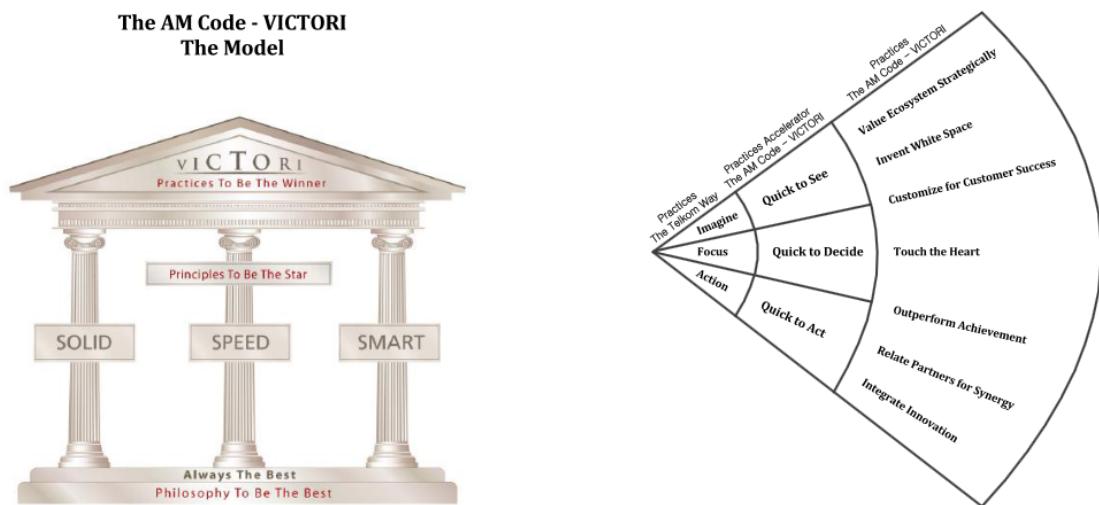
In presenting the case, the study uses descriptive method, a method that describes an object or subject under study in accordance with the conditions of objective facts systematically and describes the purpose and characteristics of the objects or subjects studied appropriately. An analytic generalization [Yin, 1994] by investigating prior theories in the light of fresh empirical evidence is the objective of this kind of study.

The documents used as sources in this paper were obtained by the authors through the archives within the management unit Account Team Development - Marketing - Enterprise Services Division. In addition, the sources are also gained from a variety of other studies related to the implementation of Account Management in the Division of Enterprise Services and Directorate of Enterprise and Business Services.

### **4. Findings & Discussion**

A new milestone in institutionalizing key account management in TELKOM Indonesia is reached with the Director's decree on Managing Strategic Account (Telkom 2012). In the decree, code of conduct is defined as moral principles that govern and guide the decision making process in the account management. The code of conduct is developed based on the organizational culture that fits with the required activities of account management. The way in which TELKOM institutionalized key account management according to this Director's decree is related with the process of institutionalization in the level of technical works (Perkmann & Spicer 2008) which mainly refer to the standardization and alignment with other common practices.

The code of conduct is formulated in three levels: Philosophies, Principles, and Practices as described in Figure 1 which shares a similar pattern with the prior code of conduct of account management in TELKOM (VICTORI the AM Code, 2013). The new code of conduct retains the structure of philosophies, principles, and practices. The comparison of the latest two codes of conduct is described in Table 2.



**Figure 1.** The AM Code: VICTORI (Telkom 2013)

VICTORI the AM Code (2013) introduces Practices Accelerator: quick to see (imagine); quick to decide (focus); and quick to act (action) showing the alignment with the prior code of conduct, The AM Way 135 (2009).

**Table 2.** Comparison of the AM Way 135 and The AM Code: VICTORI (practices)

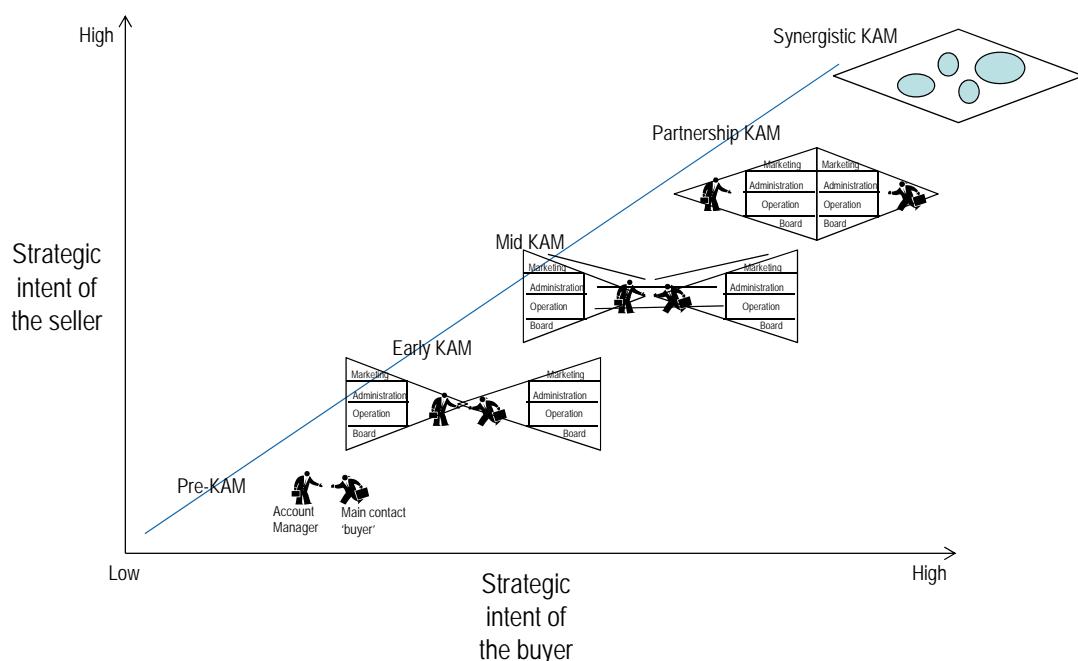
<b>VICTORI The AM Code (2013)</b>	<b>The AM Code – Practices Accelerator (VICTORI The AM Code, 2013)</b>	<b>The AM Way 135 (The AM Way Pocket Book, 2009)</b>
Value Ecosystem Strategically: Promote ecosystem value; Achieve sustainable results	Quick to See (Imagine)	Create Dream Plan : Customer Value Innovation ; Start from customer's end goal ; Grow your customer
Invent White Space: Create value innovation; Abundance mentality	Quick to Decide (Focus)	Prioritize Resources : Effective resources allocation ; First things first ; Focus on customer's insight
Customize for customer success: Co-creation for unique solution; Grow the customer's business	Quick to Act (Action)	Develop Interactive Network : Solid team work ; Engage in customer community ; Create synergy
Touch the Heart : Emotional engagement; Build loyalty and advocating		Win Valuable Partner : Win-win Solution ; Collaborate for Value Creation ; Win customer's trust
Outperform for Achievement: Passion for extraordinary performance; Passion for people development		Involve Emotion : Voice of Customer ; Build
Relate Partners for Synergy: Explore partnership opportunities;		

VICTORI The AM Code (2013)	The AM Code – Practices Accelerator (VICTORI The AM Code, 2013)	The AM Way 135 (The AM Way Pocket Book, 2009)
Gain competencies through learning		Emphatic Relationship ; Reward & Recognize the Winner
Integrate Innovation: Break the silos; Seamless customer experience		

The AM Code expands the prior code concerns on account planning (create dream plan) by explicitly envisioning an ecosystem approach and white space innovation as their standard. The ecosystem approach is defined as interconnecting between companies (business entities) in an ecosystem (e.g. value chain). By using the ecosystem approach, the customer's business will benefit not only in fulfilling their requirement but also their stakeholders requirement (mainly their suppliers, partners and customers). Millman and Wilson (1996) describe this fulfillment of customers' needs in key account management as product need, process need, and facilitation need (the way in which business is done, rooted in joint problem solving and mutual adaptation).

This change is one of the key improvements driven by the new code of conduct. By explicitly mentioning the ecosystem solution to business customers instead of a generic 'dream plan', it shows a clear direction on the new focus of key account management at TELKOM Indonesia. However, the idea of providing an ecosystem solution and white space innovation requires comprehensive toolkits that involve business process, technology, and resource allocation that exist beyond the scope of the code of conduct.

Another important feature of the new code of conduct is the change in terminology from 'partner' to 'synergy'. The change in the terminology reflects the vision of the idealistic relational model of KAM from the level of Partnership KAM toward Synergistic KAM that allows a seamless integration between TELKOM and key business customers in creating synergistic/joint value in the marketplace. Figure 2 illustrates the relational level of KAM (Millman & Wilson 1995).



**Figure 2.** The Relational Model of KAM (Millman & Wilson 1995)

Key differentiator between partnership KAM and synergistic KAM is explained in Table 3. The new code of conduct endorses account manager to elevate their expectation on managing their business customers, from being a partner towards creating joint value in the marketplace. However, the idea of improving the relationship to the partnership level requires adaptation of the company structure and related policies which are beyond the scope of the code of conduct.

**Table 3.** Key differentiator between Partnership KAM and Synergistic KAM (Millman & Wilson 1995))

Key characteristics of a Partnership KAM	Key characteristics of a Synergistic KAM
Key supplier status is awarded; Relationships are based on trust; Information is shared; Access to people is facilitated; Pricing is stable; Customers get new ideas first; Continuous information is expected.	Joint Research and Development; Transparent costing and margins; Focus on innovation; Collaborative approach to customer's markets and end users; Joint business plans; Joint marketing plans.

Furthermore, the comparison of the AM Code with two literatures describing key account management responsibilities, as described in Table 4, shows that the AM Code is covering all of the requirements.

**Table 4.** Comparison of The AM Code: VICTORI (practices) and academic literatures (Millman & Wilson 2005, Woodborn 2003)

VICTORI The AM Code (2013)	Account Management key responsibilities (Millman & Wilson 2005)	Account Management key responsibilities (Woodborn 2003)
Value Ecosystem Strategically: Promote ecosystem value; Achieve sustainable results	Responsibility for sales / profit growth of one or more key accounts, consistent with the business objectives of the seller's total portfolio of key accounts	Delivering Strategy : Realizing strategy & vision Managing Risk Marketing Insight & Changes Alignment of Strategy Value-add
Invent White Space: Create value innovation; Abundance mentality		Working with Customers : Developing relationships Providing supplier's credibility Leveraging capabilities Monitoring competition Enable joint development Managing resources
Touch the Heart : Emotional engagement; Build loyalty and advocating		
Customize for customer success: Co-creation for unique solution; Grow the customer's business	Co-ordination and tailoring the seller's total offering to key accounts	Implementing KAM Effectively : Managing contact Orchestrating cross – boundary Process improvement Delivering the plan Tailored reporting
Outperform for Achievement: Passion for extraordinary performance; Passion for people development	Promoting the KAM concept in his/her own company	
Relate Partners for Synergy:	Facilitating multi-level, multi-	

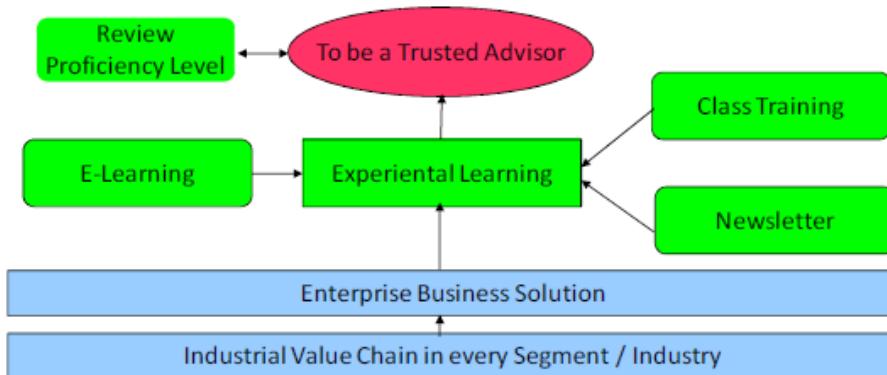
VICTORI The AM Code (2013)	Account Management key responsibilities (Millman & Wilson 2005)	Account Management key responsibilities (Woodborn 2003)
Explore partnership opportunities; Gain competencies through learning	functional exchange processes	
Integrated Innovation: Break the silos; Seamless customer experience		

As stated in the prior introduction of the code of conduct, the actual challenge is on the internalization, i.e. ensure implementation of the account management approach that is well aligned and integrated from Top-management until key account manager and officers who have daily interaction with customers.

Some learning programs are introduced to solve the challenge in the beginning of the prior code of conduct, such as Training Code of Conduct the AM Way, Account Management Apprenticeship, and Industrial Convention. The Training Code of Conduct the AM Way massively conducted involved almost 300 participants divided into 10 batches. The training also included sharing sessions with other industries that implement account management.

Account Management Apprenticeship is a learning program designed as an action learning or experiential learning, in which Account Manager is involved in Customer's business. AM Apprenticeship can be in the form of On The Job Training in Customer's office or in Industry Association or Training in another related customer's suppliers (as part of customer's industrial value chain), and also in another global Telco [KEGM AM Apprenticeship, 2010]. As the nature of AM works that are not easily gathered in class room, some forms of e-learning and newsletter information sharing are also used.

A simplified approach of Account Management learning at TELKOM Indonesia is found in the internal document as described in Figure 3.



**Figure 3. Account Management Development Programs [RKMO Marketing, 2010]**

The institutionalization process of key account management is also found in the activity of certification. There are two certification programs that endorse the implementation of account management practices in TELKOM: TCIMF (Telkom Certified Integrated Marketing Fundamental) and CSAM (Certified Strategic Account Management). In the TCIMF program, account management and account profiling are two aspects integrated as parts of the certification program. While in CSAM, the program consists of understanding organizational priorities; strategic account and opportunity planning; joint solution development, co-creation and reaching agreement; multifunctional account team

leadership; overall relationship and outcome management (Telkom Professional Certification Centre, 2013). The CSAM certification program involves observation on the actual practices of account managers that ensure consistency in the implementation. This type of institutionalization is part of cultural works (Perkmann & Spicer 2008) to promote professionalization and also serve as part of technical works, mainly to educate the practices of account management and to solidify the social norm of account management in TELKOM.

## **5. Conclusion and Future Works**

The improvement in the AM Code shows a more focused approach of key account management in TELKOM to an ecosystem approach that will ensure not only product and process needs but also facilitation need of the key business customers. The new code also plays a role in institutionalization of key account management practices in TELKOM. An organization with stated ethical code of conduct will improve ethical judgment in decision making (Pflugrath et al. 2007).

The change in terminology from ‘partner’ to ‘synergy’ reflects the idealistic vision towards a more ‘synergistic’ relationship with key business customers to ensure a seamless integration in creating values in the marketplace. However, a detailed exploration on the business process and supporting resources are required to implement the vision as stated in the new code of conduct.

The institutionalization process of key account management in TELKOM is in the stage of technical works (provide standard and education) and cultural works (professionalization) as evident in the Director’s decree and the certification processes.

However, given the methods chosen, there are limited information about the impact of the institutionalization to the outcome of the organization and the formation of a new social norm. Hence, future studies that involve an in depth investigation on these topics are required.

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# Ambient Advertising Knowledge for Increasing the Learning of Organization's Competitiveness in The Globalization of Marketing Communication

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## Abstract

Advertising, one of the promotional tools as an effective medium of communicating a product or brand. With the support of technological advancement, in addition to the contribution of outstanding service to the development of creativity of advertising in conventional media as well as opening the possibility of an exploration of the use of new alternative media. Ambient advertising is out of space that can be seen in unusual places with a medium that is also not uncommon to find. Adequate knowledge about ambient advertising strategy is as important as the competitiveness and innovation for the learning organization to win the competition in an increasingly globalizing marketing communications in the future. The objectives are to find out how the description of meaning contains in the Ambient Advertising Johnny Andrean Hair Tonic, the version of Ponytail Train Handles deliver the message as a form of marketing communications in Indonesia. Using Roland Barthes semiotics analysis and triangulation of data with interviews to several informants as well as the foundations of the theory of Persuasive communication theory, qualitative researchers do this research. From the unusual ads, persuasive message via a verbal and visual alerts are delivered to the society in order to understand its meaning. In conclusion the ambient advertising is the embodiment of creative advertising that invites audiences to understand the meaning behind the verbal and visual signs and also Roland Barthes's five grid codes. Those codes are: visual alerts via text and language diversity; visual signs of color, logo, picture of the bottle on the label, and the form of the hair braids; as well as five lattice code i.e. narrative codes, semantics, hermeneutic, symbolic and cultural codes.

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*Keywords:* globalization; increasing; ambient advertising; learning organization; semiotics

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## 1. Introduction

Ambient advertising is a form of advertising done in a non-traditional media or using a medium in a way it has never been used before either as part of the mainstream campaign or as a standalone activity [1]. According to Trehan and Trehan [2] the word Ambient Advertising comes from the word which means the surrounding ambience. These are the places where it's not commonly used as a medium of advertising that could create a more powerful influence for anyone to see it and quite potential to draw attention, at least it can make people look twice. More by Luxton and Drummond [3], Ambient Advertising is:

*"Newness, creativity, novelty and timing are key themes in Ambient Advertising. This definition is deliberately narrow and attempts to exclude mainstream advertising as referred to earlier. Implicit in this definition is that Ambient is a moveable and somewhat subjective term and will shift according to the advertising norms of the day. One of the fundamental premises of Ambient is that the world is an advertising stage. Everything is a potential advertising medium—sides of cows, rockets, golf-hole cups etc".*

Unusual words become an important aspect in this type of advertising as the main attraction of ambient advertising is unusual thing in the delivery of a message to audience. Unusual and uniqueness is expected to become its own points for the

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public to remember the message of this ads in a long time. With ambient advertising community is expected to discover a new sensation of enjoying an advertising message.

Research on ambient media advertising has been done by [4-5]. The uniqueness and specialness of ambient advertising not only based on creative execution that is able to attract the attention of its communication, the nature of the synergy in the delivery of messages with message authentication so that the audience can 'experience' or feel a direct message, but also able to give the effect of word of mouth and wide publicity due to the talk of the audiences. The research that is related to the behavioral response of ambient advertising has been done by [6-7]. Ambient advertising intentionally is examined in this study, because researchers feel that this is a new type of advertising in Indonesia, so there is a high interested element in this field. It turns out that researchers who examine scientific research more about ambient advertising are still very rare because of the advertising world in Indonesia is still rely on ads above the line meanwhile below the line advertising which is exterior media that is mainly belongs to the ambient, is still not commonly used. Unlike in other countries such as in Europe and America, general ambient contemporary advertising strategy has already used as the solution for traditional advertising avoidance by consumer, such as what had already examined by [8-9]. Adequate knowledge about ambient advertising strategy is important as the competitiveness and the innovation for the learning organization to win the competition in globalizing marketing communications in the future is increased.

This research examined about ambient advertising is done to introduce Johnny Andrean hair tonic products to the community. Ambient advertising is considered to be an innovation of advertising as long as it exists and is applied in Indonesia, where those ads use a replica of a woman's hair which is long and black as a form of execution for advertisements as shown in Fig. 1. A replica of the braided hair is mounted in the ceiling of electric train in Jakarta as a handle replacement for the passenger. This research was conducted with the aim to understand the meaning of the description contained in the Ambient Advertising Johnny Andrean Hair Tonic version of a Ponytail Train Handles message delivery as a form of marketing communications in Indonesia.



Fig. 1. Ambient Advertising Ponytail Train Handle [10]

## 2. Method

Researchers investigated this phenomenon by using semiotics analysis. Semiotics is essentially learn about the nature of existence of any sign. Barthes semiology is really associated with structuralism, as a way to analyze the cultural artifacts derived from the linguistic methods. To understand the meaning and sign according to Roland Barthes, the researcher must analyze it based on the meanings and connotations of denoted. Not only that, Barthes was not only limited to understand the process of tagging but he also viewed other aspects of labelling, namely the myth. On the significance of the second stage that is associated with the content, marks worked through the myth. Barthes's perspective about this myth, became one of the characteristic of the semiology.

From Barthes perspective of semiotics, researchers assume that the ambient advertising is still relatively new in Indonesia with the intent to make the society become understand with the message delivered by Johnny Andrean Company. The reason why researchers took these ads because there was an interesting thing especially from the aspects of visual form functions as a handle for the passenger on the train). It is a breakthrough new way to advertise your product, especially in Indonesia.

Operational frameworks in this study are the elements that are contained in the ambient advertising as a conceptual framework and it will be examined further. The operational framework for this research consists of verbal and visual alerts which is the main aspect of the study a visual advertising in the perspective of semiotics [11]. The verbal sign contained in the ambient advertising of Johnny Andrean version ponytail train handle that was examined includes two aspects, namely: text and language diversity. While the signs that was examined visually included the four aspects, namely: the colors, the logo of Johnny Andrean, hair tonic bottles picture on the label, and the visual forms of hair braids.

The Unit of data analysis that will be examined in this research are signs that displayed the Ambient Advertising products from Johnny Andrean Hair Tonic. These signs include signs of verbal and visual signs. The displayed signs analyzed by using Roland Barthes semiotics [12]. Analysis of semiotics can grasp the meaning of the verbal and visual alerts which are displayed in the ads. Data analysis techniques used in this research was the technique of analysis of semiotics, specifically by using the theory of semiotics from Roland Barthes. In line with the thought of Barthes, if we want to find meaning from a text, then the stages that must be done are as follows:

- a. The collected data was described in accordance with the theory of semiotics Roland Barthes, and it was used as analytical techniques in the study. First, the data was read and analyzed with qualitative interpretive, from this first step we will get picture or understanding that is General and covers what question.
- b. In the second step, a sign that has meant a new grouped in denotative and connotative is described. At this stage we would know things that relate to the content. The next step was to expose the myth that was implied in wrapping the sign, so that the picture will be obtained from the notion in General and covers what is in question. It will make clear the relationship of common problems to be visible which will illustrate the power of a false assertion.

### 3. Results and Discussions

Through Semiology of Roland Barthes approach, ambient advertising version Ponytail Train Handles are classified based on the sign, the code, and the meaning which is contained in it, so we can found clarity of aesthetic considerations in ambient advertising version Ponytail Train Handles if its seen from the relationship between the signs and the messages, as well as the relationship between the number of message content (verbal and visual) and the level of creativity of making design the ads.

#### 3.1. Verbal Signs

The verbal sign in this research include text and language diversity in the ambient advertising Ponytail Train handles, which is only present in the writing aspect of the image of a bottle of hair tonic on a small label that is affixed at the top of a replica of the hair. There is no additional writing or other information on the label of such advertising ambient.

##### 3.1.1. Text

Denotative meanings that may be released from this texture explicit and direct as reflected in the small label on the advertising ambient. Explicit meaning in the novel is as follows:

a. "STYLIST'S FORMULA"

The article represents that the product is a special formula of the ' Stylist ', or a special formula that is used by the ' Stylist ', which is a stylist in this case is an expert hair beauty.

b. "JOHNNY ANDREAN"

The novel represents a product brand advertised, Johnny Andrean.

c. "With Double Care HAIR TONIC"

The novel represents the type and function of the advertised products, namely hair tonic with double care function.

d. "Grow & Strengthen"

The novel represents a follow-up of the previous information about the function of double treatment, namely: 'grow' and 'strong'.

The connotations are a sign that explains the rates between the marker and the implicit meaning has alert, indirect or uncertain, so it opens opportunities against a variety of possible meanings. The possibilities of meaning are usually formed when a marker is associated with psychological aspects such as emotion, or beliefs.

a. "STYLIST'S FORMULA"

The inclusion of the article seems to assert the existence of the product as a trusted reference for purchase and try, because it is a secret potion or formula which only belongs to the hairdresser and experts in the field of hair beauty.

b. "JOHNNY ANDREAN"

Johnny Andrean is the name of the founder of the salon trademark and franchise JOHNNY ANDREAN. He gave the name of the salon and its products in accordance with his own name. At that time (when he incubated business salon owned by Johnny), efforts in this field are still very rare, the technology used is also still very simple, where Indonesia community lifestyle at all still far from orientation to pamper yourself with a treatment in the salon like in this modern era.

Johnny Andrean tries to do that by innovating salon with cheap and affordable price all people, perfectly suited to the character of the Indonesian community that is pleased with a cheap price, but they would still like to get a good

quality and a great results. It is also to educate the public to start to get used to do their hair care in a salon, without having to spend the expensive cost expensive.

Johnny Andrean tries to do that by making innovation to their salon with cheap and affordable price for all people, which is perfectly suited to the character of the community Indonesia. As time goes by, Johnny Andrean is more widely known as a beauty expert and leading professional hairdressing in Indonesia, and now he has hundreds of outlets across Indonesia with salon trademark: JOHNNY ANDREAN which has a cheap price, but the customer will still get a good quality and a great results. It is also as well as education for the public to start to get used to doing hair care to a salon, without having to spend the cost of expensive.

c. "With Double Care HAIR TONIC"

In General, most people have already known that Hair Tonic it is beneficial for the health and the beauty of the hair. The words 'with a double care' seems to assert that the hair tonic is not like a tonic products in general, but it has to be more, or even double, which of course meant to highlight the excellence of these products among the hundreds of other similar products.

There is the added advantage that tried to be persuaded for potential consumers that by buying Johnny Andrean hair tonic products, consumers will get benefit care, not just having a tonic that usually, even at a price that remains affordable, clearly offers economical side often into consideration the prospective consumers before deciding to buy the product.

d. "Grow & Strengthen"

This paper seeks to communicate that the hair tonic products have double treatment functions, namely to help stimulate hair growth with deposits of Swertia Japonica extract, as well as to strengthen the hair from the roots to the ends and moisturize your hair and scalp with the Amino content of Coat in it.

Thus, the connotation meaning which is trying to be built through the verbal sign of text, is written on a small label at the top of the hair. That is a replica that the product which is being advertised is a quality hair care products but with a fixed economical price. Therefore, it is in line with the image constructed by Johnny Andrean. According to Barthes, the myth of the play on the signifier the second level or at the level of the connotations of the language. Understanding the myth here does not refer to mythology in the sense of the everyday as well as traditional stories, but rather a way of definition, where this myth has the orientation of ideological.



Fig. 2. The letter 'E' that resemble leftside-right number 3

Johnny Andrean, who is of Chinese descent, could so strongly consider Fengshui factors, related to things that can benefit for its business, including the selection of brand name following in his design. According to fig. 2, when it was seen more thoroughly, the writings of 'JOHNNY ANDREAN', a component of the letter 'E' was formed to resemble leftside-right number 3 with two rounded fruit accents on it.

Myth number 3 if it seen from the perspective of Fengshui, is usually viewed as a good number because it represents the 'life'. In Phonetics in Mandarin Canton, three pronounced 'sang', which means life. One of the popular combinations that include the number 3 is the '328'. That means 'you will find the ease of doing business'. Later, the two symbols of the circle above the letter E represents the number itself, namely 2, where the circle if both squeezed then it will resemble the shape of the number 8. That is, not a coincidence when a combination of '328' used as the basis for Johnny Andrean philosophical or ideological. It is put with great expectations from the salon business owner to find a way to ease its success.

### 3.1.2. Language Diversity

Variety of a language used in the text on the label at the top of the hair is a replica of the United Kingdom, which when translated in the language of Indonesia becomes: 'Formula hair stylist: JOHNNY ANDREAN – Hair Tonic with a double Care: grow STRONGER'. Thus, the meaning in denotative contained in such obvious advertising ambient as it is shown, that Johnny Andrean brand promotes his newest product variants namely hair tonic that has multiple advantages and can stimulate hair growth natural hair and strengthen overall.

The use of languages in the United Kingdom advertising the Andrean devoted to Johnny builds image and positioning of the products. The United Kingdom language used on the hair tonic bottle labels in order to be connote as the language of the elite, elegant, classy and more prestigious. It can also be reputed that the offered product is a product of the elite circles. That is, only those classy or high society that has 'taste and prestige' who use it. Thus ideology that seeks delivered related products such hair tonic, hair care product that is as 'best' that can support the 'perfection' of the wearer's appearance.

### 3.2. Visual Signs

#### 3.2.1. Colors

##### Basic color Label and Ribbon Color: Red

The Ponytail Train handles dominant color is the color black hair braided on a replica, and the color red in three parts, namely: on the tape on the side of the lower end of the braids of hair, on the label on the side of the upper end of hair braids (as a background color/color basic label), and on the logo inscription 'JOHNNY ANDREAN.' For more details can be seen in the following image:



Fig. 3. Visual Color sign on ad Johnny Andrean Ponytail Train Handle version [10]

In ads, Train handles Ponytail, use of color contrast with the color black on a replica of the hair braids and also contrast with the image of the product (bottles of hair tonic), the dominant white. Red tape which is located on the lower end of the braided hair, looks clearly serve as ornaments or accessories to tie up the hair and keep the replica form by the pigtails remain neatly as shown by the picture above. The Ribbon is the most frequently utilized objects mainly by women, in particular to enhance your appearance, among other accessories in the head (the hair tie), ornament on clothes, bags, shoes, and other accessories. The red color was chosen as the background color (basic colors) for a small label on the top of a replica of the hair. It can be understood as a form of adjustment against Johnny Andrean brand logo, which is also red, certainly it seems to be contrast with the image of a bottle of hair tonic to the dominant white. Besides, the red color also looks contrast when reunited with a replica of the hair braids which are predominantly black.

Red is a powerful color and warm. Usually it is used to give effect to the psychology of 'heat', 'brave', and 'angry' and 'shout'. Some studies also identify the red color as sexy. In the realm of design, the red color is usually used as an accent due to its strength. Red is also associated in something that evokes taste, excitement, emotions, and spirit that is bubbling simmer. Positively, the red color means love, strong, aggressive, independence, and freedom, warm and attract attention. Besides many practitioners based on color therapy on the body's energy is focused on seven major points that are referred to as 'chakra', where each of these chakras is correlated with the organ systems of the body and certain colors. The red color itself is related to the base chakra affects the vitality, power, sexuality, and consciousness.

Thus the use of the red color on a Ponytail Handle can mean as a Train the representation of power, whether the power is used to attract attention of the target audience of the existence of disembodied ad hair braids; the power to go in and stored in the memory of the audience who sees the ad (memorable); as well as the representation of the strength of the product concerned which the showing off point located on the merits as well as the ability of the product to stimulate growth and strengthens hair. In addition to this red color selection in this ad, it may be intended as the plant tastes rather expected to arouse keen interest target audience to purchase the hair tonic, or to arouse the desire of audiences to immediately try it at the salon Johnny Andrean.

##### Hair Color: natural Black

In Asia, people have base color hair pigment that has a same majority, namely: black. Have a healthy shiny natural black hair is the dream of many women. In ads Train handles Ponytail, they use of natural black color to a replica of the hair which is can be understood as a representation of beautiful hair craving a majority of Asian women, particularly in Indonesia. Beautiful hair is typical of Indonesia of course not just black, but also healthy, shiny, not branched, and not easily broken (strong).

That's how natural black hair is still the preferred option for Indonesian than the woman coloring her hair with a color other than black. Therefore, it is reasonable if Johnny Andrean choose black as the color of the hair in the Ponytail Train Handles ads.

In the aspect of the psychology of color, the Black represents elite, elegant, memorable, charming, strong character, great, exalted and humble. Unlike the white reflecting color, black absorbs all colors. With black, all the energy that

comes will be absorbed. Black also represents authority, courage, elegance and tradition.

In Ponytail Train handles, a replica of the braid-shaped hair using the black color represents the natural hair color and charm of typical Indonesia's elegance. Shiny bushy black hair is very interesting views and is yearning for a woman. In addition, beautiful hair is also a reflection of the beauty of the owner. Despite a woman has already having black hair, no doubt everyone wants her black hair always looks healthy, strong and shiny. Health care also depends on the hair; the better the treatment, the healthier and more charming the hair.

### 3.2.2. Logos

Logo of Johnny Andrean has denoted as a tool to identify the product and differentiate it from their competitors ' products, in this case the intended product was a hair tonic. As we know that the market is very much outstanding brand for the product category of hair tonic. In Indonesia itself there are several brands of local competitors such as: Rudy Hadisuwarno, Mustika Ratu, Sari Ayu Martha Tilaar, NR, and so on. This logo appeared to indicate the identity of a brand among many similar products in a category.

The name Johnny Andrean can be associated by society in many ways, ranging from a 'salon', 'hair care', 'beauty', 'professional hair stylist' until 'successful entrepreneurs'. Based on product attributes, the logo JOHNNY ANDREAN represents quality products that are reliable and have the prestige, because the products are used by professional salons, where every salon has always had a certain standard in determining what brand care products deserved to use in order to provide the best service for its customers.

Based on the benefits, the logo 'JOHNNY ANDREAN' represents the rational benefits of performance products (in this case the hair tonic) in treating fertility, strength and beauty of hair for anyone who used them. In addition, the logo also represents the emotional benefits of the trust audiences against the existence of Johnny Andrean brand that in fact is not a new player in the beauty industry in Indonesia. For people who have never tried a product or beauty treatments at the salon Johnny Andrean, they definitely had the emotional experience of him that is by comparing between hope and services to him. When what was felt far beyond what they expect, it can be said that they have a perception of the benefits of a positive emotional response to such products. So, just by looking at the logo, they can be given the benefit of a positive emotional response to products of Johnny Andrean.

Based on the value, JOHNNY ANDREAN 'logo' represents Johnny Andrean's reputation as a leading hair stylist in Indonesia, so that it becomes a reliable reference that the products definitely has value. And as professional as Johnny gait for more than 30 years in the world of beauty and fashion the ground water. Based on user, 'JOHNNY ANDREAN' logo represents the majority of its customers or consumers are women, whereas in fact they are having greater orientation towards the pleasure of pampering yourself with a beauty treatment with the following back-end products. When we see it, more than 90% of the visitor or the customer of the salon are women. Similar products hair tonic, however, most of the wearer is the women, because they are indeed concerned with things that smelled of 'care', 'beauty', and 'diligence'.

Ads train ponytail handles if seen from the viewpoint of marketing communications, contains the final objective, namely to target the audience to do an action or purchase the advertised product, which in this case is a hair tonic. Associated with the logo 'JOHNNY ANDREAN' listed in Figure, the bottle tonic on the label located on the top of a replica of the pigtail, implied an solicitation messages persuasively to a wider audience to entrust the care of their hair to the expert, the Johnny Andrean, as hair stylist in Indonesia. Of course, because of the red on the label plastered replica hair it was a picture of a bottle of hair tonic, persuasive messages intended is that audiences try (buy) the tonic with the brand 'JOHNNY ANDREAN' it.

'JOHNNY ANDREAN' character writings logo is indirectly steer audiences to think, perceptive and look for a link between the replicas of pigtail they hold with the red logo on the label. At least, with respect to writing 'JOHNNY ANDREAN', it will make the audience think 'who' Johnny Andrean, and questioning 'what' is the relationship with pigtail and 'Johnny Andrean'. By doing so, it will invite the audiences to interpret and to conclude what exactly the message contained in the ads is. But one of the drawbacks in the ads is about the size of a logo that looks too small for which only appears on the red label at the top of replica hair, and it lies in the image of the bottles of hair tonic on the label. Passenger trains have to see it with a closer distance (while standing) in order to be able to read 'JOHNNY ANDREAN' 'writing clearly'.

### 3.2.3. Image Label: Hair Tonic Bottle

At the end of the top ads train ponytail handles, attached red background colored paper label with a picture of the bottle in the Middle as shown in the following image:



Fig. 4. Picture of the bottle on the label at the top of the ads [10]

At a glance, the bottle icon seen as a bottle of a certain product (whether it contains anything) because the bottles listed on the verbal sign that reads 'JOHNNY ANDREAN'. So the syntax of visual alerts in the form of bottles and paper 'JOHNNY ANDREAN' contains a symbolic message that the icon is the icon of a product under the brand name of Johnny Andrean. Then when we take in more detail, there is another inscription that reads 'With Double Care HAIR TONIC – Grow Strengthen' the writings which appear much smaller than 'JOHNNY ANDREAN' writing'. Thus the overall syntax in a visual form of jar sign and the writings of his supporters a symbolic message that contains the icon is a bottle of tonic hair by Johnny Andrean brand.

Image visualization a bottle on the ads train ponytail handles has connotative meaning as the implementation effort of Johnny Andrean in introducing the hair tonic products. The product is a new product that has just been launched to the market. I meant ' introducing ' in this case is an attempt to build an awareness in the minds of consumers or prospective audience an overview of product attributes. With the hair tonic bottle shape visualization on the label in the ambient advertising, it is expected to be easier to remember it. The audiences can also call back easily the memory of the product when they try to buy hair tonic a product. Thus the main focus of the placement of the image on the label of the bottle, ads train ponytail handles none other is an attempt to create a public audience (in this case the passenger trains as target audience) familiar existence of new products in the form of a hair tonic Johnny Andrean packaged in the size of the bottle, and the realization of its product just as they look in the picture.

### 3.2.4. Visual Grammar: Form of a Braid

A replica of the hair braid-shaped in an ads that Johnny Andrean ambient further noted, shows a regular pattern, i.e. wring hair by first dividing the hair into three sections (3 gyre pattern). This is apparent from the braids form the density is slightly larger (porous) compared with hair braids which are made with pattern gyre 5 - divide hair into 5 sections in advance the twist results had appeared in smaller (closer). Here is a picture of the hair braids with a volute 3 looks identical density with a replica of the hair braids on Johnny Andrean ads train ponytail handles version:



Fig. 5. The Motif of the density of the pigtail with pattern 3 gyre

Hair braids are mounted as a handle for the passenger in the train length measuring approximately 30 cm (thirty centimeters) and given the ends of the Ribbon knot underneath as the braids form so that the beam remains neat and doesn't break down. The replica is created deliberately twisting the hair or braid which is formed with the aim to make it more easily to hold, because it is used as a handle for the passenger who was standing on the train. It can be imagined if the hair is left hanging just cascading - without bound or without twisted – it will certainly look very untidy, unethical, horrible even disturbing for the passengers, especially if the fluttering hair has got a windblown, of course it will be difficult to hold even it is not impossible it will be 'slap' the faces of the train passengers. This form of hair braids if we pay more attention to it, it will look like ropes. It is only on the braid pattern, where the ropes using the 2 pattern 2, i.e. the gyre is two part rope wound around each other to each other. Ropes usually represent a strong 'objects'. It is inseparable from the utilization of ropes which in general is indeed enabled for things that are hard. For example, like to make a knot on the stake the tent/camp; bind the pulley and bucket in the well water, tying the ship on deck in port, and so on. From enabling connoted ropes, finally as a 'power'.

Concept of the form of the hair braids Johnny Andrean is an attempt to incorporate elements of the advertising message in Indonesia to be more easily accepted in society. Form of a braid is a classic hairdo styles of classic Indonesian women, as many are seen on Netherlands colonial era, when young girls most braiding her hair as the hairdos on a daily basis. In terms of its history, the braided hair styles happens not only in Indonesia but also in other countries in many parts of the world.

Data analysis are based on five lattice codes advanced by Roland Barthes in his book S/Z [13], ads design work of Johnny Andrean version Ponytail Train Handles turned out to contain hidden codes in the signs of the ads, the visualization aspect code narration, semantic code, code, code hermeneutic symbolic and cultural codes.

a. Narrative Code

The narrative code or Proairetik code containing stories, narrative sequences, or non-narrative. In ads Train handles Ponytail borrows the narrative code (proairetik) which by Roland Barthes is described as a code containing a story or narrative. The narration is in that ads that is about the beauty and power of women's hair when they use hair tonic products brand Johnny Andrean, which indeed is devoted to care for the hair to make it more powerful.

b. Semantic Code

Semantic code, is code containing connotations on the level marker, for example the connotations of femininity, masculinity. Or in other words semantic code are signs that are laid out, thus it gives a connotation of masculine, feminine, nationality, tribal loyalty. In the form of ads Train Ponytail handles, semantic code appears in the selection of ads formats that use the replica of long black hair braided icon as the main object, where it shows a side of femininity from the ad as a whole.

Connotation of femininity is also supported with a Ribbon color selection and basic color labels, namely red. However, it seems mismatched with the brand 'Johnny Andrean' which is also red. This shows the existence of harmony in terms of feminine women, where women are identical to the style of the band's all-round harmonious in terms of harmonization of color. In addition, the red color is also associated as a female or feminine color (example: color lipstick red is the majority). The brand 'Johnny Andrean' itself is also synonymous with the assumption of 'salon', 'maintenance' and 'beauty' - three things very close to the lives of women - it also refers to the existence of the woman as a feminine concept.

c. Hermeneutic Code

Hermeneutic Code, namely articulation variously questions, puzzles, enigmas, suspension response, answer, eventually led to the answer. Or in other words, code-related puzzles hermeneutic arising in a discourse, such as who are they? What's going on? Dis hitch appear? What is the purpose? So, the answer to that one other answer delay.

Loaning hermeneutic implied in the code visualization ads Train Ponytail handles, i.e. where the code contains provocative and persuasive hermeneutic meanings (invites audiences to join the 'drift' in the emotions evoked by advertising). It can be seen, among others, through some of the following questions and answers:

- Why there are banded red hair braids attached lining inside the train ceiling that can be used as a handle passengers?
- Why it uses hair braids shape? Instead of the train as usual grip shape? Because there is an ulterior motive behind the hair braids.
- What is the hidden meaning behind hair the braids? It is about how strong the hair when it is used as a handle even for hanging but the hair remains strong, tidy, not be dislodged/damaged.
- Why could the hair be so strong? Due to treatment using a hair tonic Johnny Andrean.

d. Symbolic Code

The symbolic code, is the code that deals with psychoanalysis, antithesis, ambiguity, contradiction, two elements of schizophrenia. The symbolic code here emerges from the hair of beautiful women symbolizing, healthy, shiny, black and strong hair, which is in accordance with the concept of the product offered by Johnny Andrean hair tonic. Symbolizing is

supported by a dominant color selection in the embodiment of ads Train Ponytail handles. As we know, black is the natural color of beautiful hair typically of women in Indonesia. Black refers to something that is memorable, elegant, charming elite, elegance and tradition. Therefore, the ads use black symbols in the embodiment of ads Train Ponytail Handles to assert more about traditions treating the hair to keep it beautiful and powerful as the image of the charm and elegance of an Indonesian women.

#### e. Cultural Code

Culture or Cultural codes, is the voices that are anonymous, collective unconscious, myth, wisdom, knowledge, history, morality, psychology, literature, art, and legend. Visualization of ambient advertising version Ponytail Train using this Handle also relates to cultural codes or code of moral aspects, particularly the culture and myths. The cultural codes that are meant here is the use of a replica of the pigtail as a handle for the passenger, which is somewhat contrary to the norms of civil. In the Eastern cultural or customary such as in Indonesia, especially in Java community, the myth of the holding or pulling someone's hair is an act that is judged less – not even polite.

If the hair is made as a replica of the handle, then automatically the passenger holds a replica of the hair that looks like they are pulling the hair, when in fact they are just trying to stay strong to maintain their balance of their body so they will not fall when the train is speeding.

## 4. Conclusion

From the results of the analysis of semiotics Roland Barthes based on a verbal and visual alerts contained in the ads of Johnny Andrean version Ponytail Train handles, it can be drawn the conclusion that there is a close relationship between verbal and visual signs, where both of them complement each other and cannot be separated from each other. The connection of the relation between verbal and visual alerts sign has given a definition of ambient advertising tells us that that is such a persuasive embodiment of creative advertising executions that invites audiences to understand the meaning behind the sign/symbols are placed on the medium are not uncommon, and interpreted them as a marketing communications messages over a product branded hair tonic Johnny Andrean.

However, there is disadvantage of Johnny Andrean ads that can be seen from the aspect of decent value that gives a little conflict with cultural norms in Indonesia which still holds strong values of the Eastern custom of holding one's hair, which is behavior that is judged less or disrespectful. Whereas in practice related to enabling replica pigtail as a handle for the passenger in the execution of this outdoor advertising, the passenger trains as target audience thus conditioned to hold the hair, even inclined to withdraw it. This certainly looks less in accordance with the ethical values of cultural society of Indonesia.

When viewed in terms of concepts and creative ideas, these ads are quite unique and potentially have huge audiences to seize attention at first glance. But it still needs some sort of evaluation is research pre ad executions, at least for earlier negative responses that may occur, especially the ads have a tendency to collide with the cultural values of local community.

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# Determining Factors of the Effectiveness of Conducting M&As to Strengthen Global Competitiveness In Industry

(PT Telekomunikasi Indonesia, Tbk Cases)

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## Abstract

The most essential motives to conduct a cross border M&As is growth. Companies which attempt to expand have two options, and they should choose between internal growth and M&As growth. In the former case, if a company seeks to expand within its own business, the company may face the internal growth that is reluctant to be an alternative satisfaction. For instance, the company could find difficulty in maximizing their opportunity because of a limited period of time, whereas the internal growth may not suffice. As the company grows slowly, the competitors could respond very quickly and it might be taken as dominant in given market share that a company may have dissipated over time by the actions of its competitors.

Hence, a company may choose M&As growth by acquired other companies as an alternative for its inorganic growth. In this respect, several existences could be taken into consideration. For instance, the resources, facilities, well established managements and other resources are available for additional competitive purpose in the market. The factors determine this purpose highly depend on the board's views, such as; business focus, strategy in consistency, high tense of professionalism. However, other critical disciplines shouldn't be ignored. To achieve these objectives, there are five often-neglected institutional capabilities to be taken into account; engaging in M&As thematically based on business portfolio, confirming company's strategic vision, clearing direction based on company objectives, managing company's reputation as the acquirer, and managing the synergy among the targets across the M&As. The capability of a company to approach an effective M&As in this regard could have leveraged the company performance as a competitive advantage that competitors may find it difficult to follow.

Keywords: Global Competitiveness, Business Combination, Merger and Acquisition, Company Growth, Cross Border Merger and Acquisition.

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## 1. Introduction

M&As, in the context of corporate strategy, is a combination of two or more companies with a certain mechanism in specific business area that ultimately results in a large capitalization in the economy market [1]. The goals to be achieved in the implementation of M&As are the availability of financial aid, assistance and to leverage a company's capital in a rapidly growing industry without having to form a new company from scratch, by simply combining two entities to increase opportunities in the given market[2]. Theoretically[3], there are three primary methods of M&As; those are a merger, sale of assets, and tender offer.

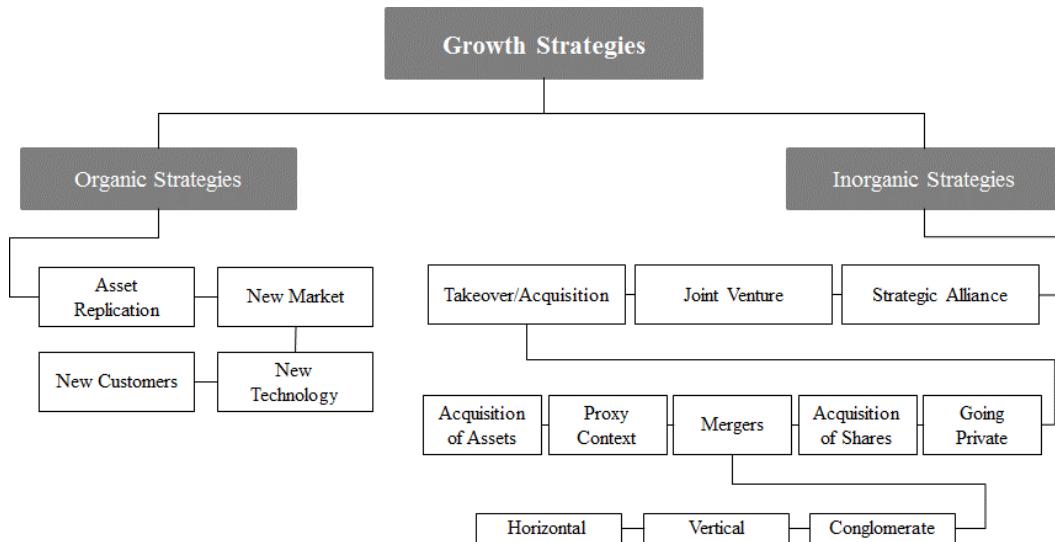
A merger is the process (universal succession) of handing over assets and liabilities from one company to another and constructing a new legal entity by a legal framework. It refers to the process of M&As which usually consists of six process[4], namely: Meeting of possibly takeover parties, Confidentiality agreement and stand-still agreement, Letter of Intent, due diligence investigation, the Shares Purchases Negotiating Agreement (SPA), and Closing meeting. Apart from those, many literatures are settled in different terminology for the process related with M&As. However, the outcome of the process is relatively similar.

## 2. Comparison Between Organic (Internal) Growth And Inorganic Growth

What exactly is the rationale behind the strategies that might be chosen by the management? Since the performance of a company measured is reflected from its success, then a growth is a must. The management has the right to choose whether the company should grow through normal way or it would be better to play a rapid one, however the risk has always accompanied those options[5]. Company growth then becoming a trending topic in many discussions, it might be

taken in a form of leveraging the revenue, enhancing the margin (profits), growing the sales, grabbing more market share, extending the reputation, and strengthening company's competitiveness.

The decision to acquire a settle company through M&As scheme will encourage immediate solution for the company to penetrate the market, and to master the sophisticated technology. Furthermore, it may equipped the management with skilled and knowledgeable human capital. A company may have a chance to operate more efficiently[6], to diversify its products and line businesses, and if the initiative's result indicates failure, the company still has the opportunity to sell to another buyer[7]. That's the reason why in recent years or even a decade, it becomes a common strategy for modern companies to grow. Nevertheless, the growth strategies themselves can be described into separate part as shown below (figure.1)[8]. To achieve the growth, a company must first determine its strategy.



**Figure 1. Company' Growth Strategies - Classification**

Sources: Bruner (2004). *Applied Mergers and Acquisitions*, John Wiley & Sons, Inc., Hoboken, New Jersey pp. 45-50.

In many literatures the growth strategies adopted by companies may be obtained by means of organic and inorganic growth[9]. Organic growth usually refer to internal growth that a company will be adopted. It focuses on conducting many actions in relation to leveraging company's process management.

Inorganic growth refers to external growth process by conducting M&As activities. It relatively faster and favors instantaneous the utilization of assets has been acquired[9]. This strategy is likely more complicated and thus multi-discipline perspective should address. However, it is less risky because it does not result in outgrowth on its capacity. The forms of M&As could be taken in many variety of models, for instance, merger, consolidation, amalgamation, takeover bids, tender offer, joint venture, acquisition, or initiate a strategic alliance. They can be either taking over of assets or equity[10].

**Table 1.** Organic Growth v. Inorganic Growth

Characteristics	Organic Growth	Inorganic Growth
<b>Definition</b>	Organic growth is the internal growth of a company due to more product/service sales and better saturation of a market	Inorganic growth is achieving growth through means other than internal efforts tied to the core of the business
<b>Types</b>	<ul style="list-style-type: none"> <li>▪ New Business Models</li> <li>▪ Entering New Industries</li> <li>▪ New Products &amp; Services</li> <li>▪ Existing Products to New Customers</li> <li>▪ Existing Products to Existing Customers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Takeover/Acquisition (M&amp;As)</li> <li>▪ Joint Venture</li> <li>▪ Strategic Alliance</li> </ul>
<b>Pros</b>	<ul style="list-style-type: none"> <li>✓ May grow business through strong management and effective planning, better understanding of the business inside and out</li> <li>✓ May move quickly to take advantage of changes in the marketplace, and could have experience with the satisfaction of seeing the vision come into fruition</li> <li>✓ Have the choice of growing the business at a rate that is more comfortable</li> <li>✓ Instead of merging with another company or buying one, the business can be sold when it is mature enough. This can create profit</li> </ul>	<ul style="list-style-type: none"> <li>✓ Growing the business inorganically involves joining with another business through a merger or an acquisition. This immediately expands assets, income, and market presence</li> <li>✓ May have a stronger line of credit because of the combined value of the two businesses</li> <li>✓ Will also benefit from the added expertise from personnel at the new business.</li> </ul>
<b>Cons</b>	<ul style="list-style-type: none"> <li>○ May have limited resources for growing its own business</li> <li>○ May find the marketplace will not allow to grow beyond a certain point. In addition, the plans for own growth can be thwarted by competition, causing the business to cut back expectations and consider the possibility of having to close down due to limited opportunities</li> <li>○ Growing a business from the start-up stage means constantly struggling to make sure the business has positive cash flow in order to pay bills and payroll, as well as finding ways to grow sales</li> </ul>	<ul style="list-style-type: none"> <li>○ Will have to expand management capabilities dramatically when joining forces with another business</li> <li>○ Will suddenly have many more employees and more assets to monitor, use and dispose of as the business needs change</li> <li>○ May enter areas of the marketplace where we have no expertise</li> <li>○ Could also grow too fast. Most mergers and acquisitions require financing, and it will have to service the debt from the growth experienced with the merger or acquisition</li> </ul>
<b>Trend</b>	<ul style="list-style-type: none"> <li>▪ Nothing ensures success faster than a few quick wins. Once in growth mode you can build momentum across the organization</li> <li>▪ Eliminating growth barriers can open up internal and external avenues to growth that many companies do not even realize are blocked</li> </ul>	<ul style="list-style-type: none"> <li>▪ Traditionally the various forms of integration—vertical, horizontal, lateral (M&amp;As)—have been predominant;</li> <li>▪ Now joint ventures are becoming more significant and commonplace.</li> </ul>
<b>Risk</b>	<ul style="list-style-type: none"> <li>○ The risks of organic growth lie in expansion that outpaces the ability to effectively manage, stretches resources too thin, strains capital, or diverts focus from the business' core mission.</li> <li>○ It invests time and resources into, but if a major competitor decides to pursue external growth, within a short time, the business could go from a roughly equal competitive standing to being completely outmatched.</li> <li>○ If the competitor grows too rapidly, it might shift its focus away from the elements</li> </ul>	<ul style="list-style-type: none"> <li>○ Businesses that grow inorganically may have less control on their rate of growth and normally face more cultural and integration challenges than those that choose an organic strategy.</li> <li>○ It is often very expensive to buy a business, even if the business is being acquired, the business is in financial trouble.</li> <li>○ Finding a company to be acquired or cooperated with could take a long journey</li> <li>○ Complicated and multidiscipline</li> </ul>

necessary for success in industry, such as offering high-quality products and personalized customer service.

perspectives.

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Sources: UNI Strategic, Strategic Business Growth, Kuala Lumpur 2013.

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M&As as ways to growth inorganically may become one preference for companies who have been successful in their outcome within the national market to expand revenue and profit. Whereas M&As assists the companies with opportunities of withdrawing a new market rather than engaging in further growth in the internal market. Continuing this condition, the key element to be contemplated is whether such M&As provide opportunity cost relate with the risk adjusted return[11].

### ***Organic Growth Concept***

Organic growth is part of the process a company (in doing business) broadening in consequence of its market penetration, increasing the output per customer (existing sales), new sales, or any composite of the above, as opposed to M&As, which are examples of inorganic growth. Typically, the organic growth is a growth that comes from a company' existing businesses, as in contrast to a growth comes out of buying new businesses.

According to a study conducted by A.T. Kearney, it prescribes a three-pronged strategy for organic growth that any company can deploy to achieve aggressive growth rates[12]. First, a company may do a capturing short-term growth opportunity. This step is a basic standard for a company to growth traditionally in order to unleash potential throughout the organization. Second, a company must try to eliminate barriers to growth. A company implements this step for acquiring any fundamentals right to grow, it can be an effort to take a good look at the fundamentals of their businesses, and understand how they can improve performance, strip out any unnecessary costs and focus on the right strategy to survive and take their businesses forward. Lastly, a company should make a continuously improving the sales and marketing organization. This step is a last resort to strengthen market performance as the core of company business growth.

Many alternatives a company could be sought, for instance, competing in the right markets or even try to create it, innovating to develop the right products and services, making the most of their market situation - performing better than the competition, using the right mix of assets, skills, finance, infrastructure and relationships to deliver good value propositions to customers, etc.

### ***Inorganic Growth (through M&As) Concept***

Inorganic growth is the rate of growth of business, sales expansion etc. By increasing output and business reached by acquiring new businesses by way of mergers, acquisitions and take-overs[13]. This kind of growth also takes place due to government directives, leading to enhancement of business in some identified priority sector/area. The inorganic growth rate also factors in the impact of foreign exchange movements or performance of other economies[10].

Fundamental motive of doing inorganic growth strategy through M&As by large companies nowadays cannot be separated from the present globalization and regionalism. Based on data from World Investment Report between 2000 - 2009, M&As was augmented in the early 1990 until 2005, while in 2008 it was declining both in terms of quantity and value, which was generated by the global economy crisis in the years 2007-2008[14]. However, based on the prospectus, M&As in some regions by 2010 tend to be continuously rising, especially in Asia (less impact by the crisis) and this condition also in line with the expanding of global economy. M&As can be functionally classified as:

- *Horizontal M&As (between competing firms in the same industry). Recently, they have grown rapidly because of the global restructuring of many industries in response to technological change and liberalization.*
- *Vertical M&As (between firms in client supplier or buyer-seller relationships). Typically they seek to reduce uncertainty and transaction costs as regards forward and backward linkages in the production chain, and to benefit from economies of scope.*
- *Conglomerate M&As (between companies in unrelated activities). They seek to diversify risk and deepen the scope of economic .*

It can be outlined, motives that underlie the M&As is to boost profitability or revenue enhancement, cost minimization, market development, and power and efficiency gains[14]. Some literatures take prominent remark by conducting studies on connection of M&As with some indicators.

### **3. The Effectiveness of Cross Border M&As**

Based on the explanations above, inorganic growth strategy seems to indicate that this alternative would provide a promising of performance to be taken. It is however, those are merely just some of the justifications for conducting M&As. The theories explained looks like an superb growth alternative for a company, and all are solidly grounded in theory from economics and finance perspectives[5].

There is a huge difference between the theory of organic growth' expectations and the fact that many of them are getting suffered after the post-M&As period[15]. Although many companies have used sophisticated tools, including the best lawyer and advisor to conduct M&As based on best practices and detail theories, but still the objective to grow successfully and profitably is merely far reached.

Implementation of M&As could have brought all that was foreseen of them theoretically, or even could have more. However other companies, particularly those with prospectus about the advantages of M&As to convey a business growth (Hubris and Game Theory), frequently found disappointed. Many studies have denoted unsuccessful performance in both companies involved in M&As[16].

M&As have often occurred with various motives in order to leverage the corporate value. Through enhancing revenue and cost reducing, they may offer, M&As become the easiest way to exploit company's potential growth[15]. Since, the companies are involved to have the different form such as private, public, state-owned companies, etc. The complexity appears as the consequences. Therefore, BOD from both companies should be aware pursuant to their principle of fiduciary duty and duty of care to ensure all aspects of regulations regarding M&As's process are obeyed and fulfilled.

Mckinsey&Company (McKinsey) has experienced it. Based on its research said that, companies are more successful at M&As when they apply the same focus, consistency, and professionalism to it as they do to other critical disciplines[17]. Further, McKinsey highlighted requirements for a company to success in M&As as four often-neglected institutional capabilities[17].

To be a successful company in the implementation of M&As, the requirements should be considered diligently and prudently by the management. Those would provide a guideline for company to equip the technical orientation of inorganic growth strategy with risk management based on approach in order to create a competitive advantage. Detail of the five often-neglected institutional capabilities will consist of; *engage in M&A thematically, Confirm the strategic vision, Clear direction based on company objectives, Managing Company's reputation as the acquirer, and Managing synergy among the targets across the M&As.*

### **4. The Success of M&As For a Company from PT. Telkom' International Expansion Perspective**

The primary motivation of doing M&As is related to financial performance[18]. In most cases, financial motive is more noticeable than other motives. It is related to the purpose of doing mergers and acquisitions, in which the decision is based on interests of the shareholders and the board of directors. In practice, financial motive is mostly done by a private equity[19], for instance, when they propose management buyouts (MBO) or sells the merged companies in the next couples of years in order to take advantage from the margin of increasing company's value.

Another motive is strategic motive. It is a more composite motive behind M&As, it might change the market construction and as such has an impact on company profits[16]. Moreover, it might even be contracted to zero, this is the reputed merger paradox. Practically, this motive can be seen as follows[16]:

- *Cross-sell, for example, a bank buying a stock broker could then sell its banking products to the stock broker's customers, while the broker can sign up for the bank's customers for brokerage accounts or a manufacturer can acquire and sell complementary products.*
- *Synergy: For example, managerial economies such as the increased opportunity of managerial specialization. Another example is purchasing economies due to increased order size and associated bulk-buying discounts.*

Strategic perspective of M&As is obtained by technological, regulatory, and to some extent also financial consideration. It can be explained by the fact that most of this motive is conducted through horizontal merger[10]. Besides, such a merger naturally intended to combine the functions. Therefore, eliminating double activities, i.e. in Research and Development function, is an important factor in companies' decisions.

PT. Telekomunikasi Indonesia, Tbk. (here in after called Telkom) in 2007 stated its vision as '*Menjadi perusahaan InfoComm terkemuka di kawasan regional*' (to become InfoComm player in the region)[20]. Until 2013 the company began operating in seven countries, namely Hong Kong-Macau, Timor Leste, Australia, Myanmar, Malaysia, Taiwan, and The United States of America. According to Telkom, its strategic target to achieve objectives in 2013 was improving market capitalization through sustainable competitive growth, converged its TIMES portfolio, and to build a strategic guidance (as parenting).

In order to implement the strategy, Telkom would conduct international expansion through partnerships, alliances and acquisitions, giving priority to the Asia Pacific region, the Middle East and North Africa[20]. Telkom will appoint its subsidiary PT. Telekomunikasi Internasional Indonesia (Telin) as the main vehicle for international expansion. It is clear that Telkom will implement M&As as the strategy for inorganic growth. Further, based on Telkom's CEO statement on August 2014[21], the company is preparing USD 200 million of investment in order to build a business at Silicon Valley, US. Telkom will establish a company namely Metra Digital Investama (MDI) as a Corporate Venture Capital (CVC), the MDI as CVC is the investment company owned by Telkom to facilitate corporate funds directly in external start-up companies.

The five often-neglected institutional capabilities will examine Telkom's strategy in conducting M&As. This tool is a kind of approach to analyze the effectiveness of Telkom in implementing M&As as inorganic growth strategy.

### ***Engage in M&As thematically***

In 2014 Telkom proposed its strategic initiatives; one of them was to extent its businesses into 10 countries[20]. With inorganic growth strategy, Telkom declared 10 percent of its 2015 targeted market capitalization of USD 30 billion[22]. It means that USD 3 billion would be acquired through inorganic growth.

Examine the goal with its strategic initiative, Telkom has many options to conduct, however too many long listed start-up companies overseas (or in the region) to be considered. Considering the goal, Telkom M&As theme through CVC model is putting its investment in external start-up companies. In order get there, Telkom stated: the company would become partner is Fenox Venture Capital (FVC), in Silicon Valley[23]. FVC is an American company, will perform and assist the activities of MDI.

To realize the goal, Telkom should only be run by aggressively entering emerging and potential start-up companies markets. Without a sense to monitor those potential and a deficient in discipline, it can lead Telkom to have a stuck idea and stopped in place where there is no more space to go in choosing the target.

Since, start-up companies are a broad market with extensive sector and industry[24], moreover the geography spread across the world, Telkom may experience that attempting to enter an extremely a wide range of markets is worthless. This condition happened due to constraints on time consume, the complexities of entering new areas of business, and other strange of environment to be adapted. In this situation, Telkom should equip its capability and capacity with international business networking, and the ability to have a sense of start-up companies, so that Telkom have shortening its options into limited sources and this should be the most promising companies to be targeted (the potential companies).

Start-up companies need an accelerator[24]. This accelerator is an abstract entity or environment that will provide the start-up a way to boost its potential. Accelerators usually are exciting activities, collaborative team-work, and deeply beneficial incubators to help the start-up to grow, to develop a product or idea, and to find follow-on investors[24].

Analyzing the theme may also demand for Telkom to know the complexity of lean operations[17]. Does the start-up would offer cost synergies in consolidated companies as a whole? Does it bring bloated operations rather than the simplicity? How about the potential of of economic of scale in the industry? Given the start-up has the same product line and services, the existing company branding would also provide a potential to be exploited. Thus, with the company M&As theme established with prudently and properly; the company (Telkom) would be able to make a precise short listed of potential applicants to be acquired. Further, the company may have the opportunity to implement a successful M&As needed in order to grow and to achieve its objective.

### ***Confirm the strategic vision***

One way to be considered in order to confirm its relevant M&As initiative is to conduct strategic due diligence precisely[16]. Telkom with M&As initiative should employ its resources (with privileged of asset, knowledge, capability, etc.) to build a strong product attributes[25]. These attributes could be built in terms of, product's brand, intellectual property right (IPR), life style, industrial insight, or even the financing schemes, that would deliver more value to customer, vendors, and the community.

This approach would help the company to identify the potential applicants (of start-up), company that will be acquired, on an asset they have, and how to utilize the assets in order to expand its products and services to customer. Strategic due to diligence for the deal should be focused on assessing the potential of the existing operations, and testing the viability of the future operating models as well.

### ***Clear direction based on company objectives***

The objectives that the company stated are rarely to be executable programs[26]. Then, objectives should be translated into real programs and detail actions. Derivation of these objectives into those real actions and programs should be conducted with clear direction. Start from the beginning and concluding objectives prior to starting on actions plan (with risk embedded), leaving all open to make assumptions. As it is proven, that to commence a project (especially with M&As) is only determined a broad range of abstract assumptions and generic data may lead the project to be failure, because assumptions are mostly wrong[27].

Provide the company with a compact and clear actions plan in order to be effective and efficient in term of time and any resources may utilize. Every part of the project should have clear guidance regarding its responsibility and duty. Every people (including any advisors appointed) must feel cherished and avoid bad relation that may lead to end up frustrated.

Finally, the objectives of the project must clearly define and state into a down to earth actions. The implementation of the project must define specific roles of the people in it[17]. The deadline for each part of the team need to be disclosed, the budget must be transparent, hence, the accountability of each is stated clearly, and budget and scope of responsibility are defined distinctly. As a result, with defining the roles of each member clearly, the company aligns the objective of the project with the roles of people.

### ***Managing company's reputation as the acquirer***

Following the company initiatives by Telkom in recent 10 years, there are around 10 M&As (or even more than that) has been conducted[20]. Whether this condition would create a good reputation for Telkom (as the acquirer), no statement supports this hypothesis. However, Telkom with its proposed capital to acquire companies (or start-up), is merely conduct as if an investment bank that provide unsolicited deals to seller. According to CEO statement, the gain from the bulk of company value will be the goal of Telkom to seek, rather than its yield[23].

Since, the gain of company (acquired) value is the main goal, and it is hardly to be that Telkom will take over the control then, the deal may sometimes be only in the term of financing schemes. What Telkom proposed is only funded the start-up company's potential, as this is the main value for the next gain.

Whilst, for the other initiative Telkom would conduct, in M&As scheme, to be in control of the acquired company is important. Without any good reputation, the acquiring company is not really in control[28]. Even if a company gets better at being an acquirer (like Telkom would do) it would be a hard task to do to take control of the company [28].

As the mandatory for acquiring company, through legal advisor, term sheets or head of terms usually has been proposed to the target. A reputation is significantly critical for the company, in many discussions and negotiations, speed, understanding, mastering situation, the pace, endurance, and fluently in deals are the best known as real strength for the reputable company. However, without a good reputation, the negotiation will be too slow, even the acquirer may be reactive to identify the targets, or sometimes embarrassed in making relationships, and too technical to start a conversation with executives.

A company may find such a general objectives against a list of potential targets, which cannot be proactively approached. Thus, the condition may end up reversely that the company being dependent on targets proposed[2].

There are many advantageous of being a reputable company, companies that invest in their reputation as acquirers are perceived instead as bold, focused on collaboration, and able to provide real mentorship and distinctive capabilities[17].

Reputable companies, which conduct a negotiation with target, usually propose a practical and factual business cases in order to create better performance, are rarely to happen; reputable one discuss directly about the value of the target. The purpose of negotiation between them, usually regarding the ability to focus on next performance, or how to provide better support, instead of a hard bargain of the company value[2].

The best describes of a negotiation with reputable company would bring a factual of competitive advantageous being proposed[17]. This offer will deliver a chance to grow, and the best practice of utilizing the assets in order to create better value for customer.

### **Managing synergy among the targets across the M&As**

Synergy in M&As is challenge, thus it can be a very complex measurement and sometimes took a huge effort to accomplish, however it is worthwhile[16]. Telkom's stated in its strategic initiative as to increase synergy within Telkom group, at the strategic and operational levels, including single main function and cross functions.

One single initiative oversea is the establishment of *Telkom Internasional Indonesia Malaysia Sdn. Bhd.* (Telin My), a company provides MVNO services[20]. Yet, Telkom has international business run in Malaysia providing wholesale traffic and data. Wholesale service in Malaysia is conducted through cooperation with all existing operator in Malaysia, and so far the transaction is growing stable.

Since the MVNO business needs a direct cooperation with only one of the existing operator (mobile), the schemes will automatically be spoiling the wholesale business settled with other operators. However, to analyze the synergy value, the potential traffic (market) would be generated from the MVNO scheme should also be considered. This is a very complicated scheme of synergy.

Once the MVNO business agreed, there should be an incremental of synergy raised. The synergy will be reflected through the performance of the new established company and the result from existing business scheme will be run by Telkom. The synergy should also provide a real condition where an environment come up with many new ideas to perform, further all assumptions being used to deploy business plan must be replace with factual data[27]. Thus, with precise measure of action plan, higher synergies will be captured.

M&As is a complex initiative, and therefore it should not be a respond for every objective to grow inorganically. A company with significant potential to grow organically, support with the ability to invest (remarkable financial performance), promising market growth, and favorable environment must follow internal growth strategy accentuated. Whilst, inorganic growth strategy through M&As must consider prudently and diligently, since the deal is highly involved with premium cost and the post-merger integration will create relatively high risk to be performed.

## **5. Potential Improvement For Company's Competitiveness Through M&As**

M&As activity as inorganic growth strategy has been soared up in recent years[29], specifically since many companies initiate its objective to expand market penetration overseas. Moreover, the globalization and free trade area (FTA) under world trade organization (WTO) scheme come into forces. Despite of the attractiveness of M&As for a company to leverage its competitiveness and to accelerate its speed of growth, only few of M&As can deliver success.

In order to raise the opportunities of success, a company can examine lesson learnt from best common practices and deploy such a framework that addresses business cases and strategic objectives related. For instance, the five often-neglected institutional capabilities as modified framework can be considered.

Key point from the framework based on Telkom's perspectives discussed above could be summarized into a simple description, in order to provide a basic company's competitiveness obtained from inorganic growth strategy.

**Table 2.** Company's Competitiveness from Inorganic Growth Strategy

No.	Capabilities	Competitiveness
1	Engaging in M&As thematically based on business portfolio	<ul style="list-style-type: none"> <li>▪ Examine the goal with its strategic initiative and ensure the theme for M&amp;As.</li> <li>▪ Aggressively entering emerging and potential start-up companies markets</li> <li>▪ Equip with the capability to monitor potential companies (applicants) to be acquired</li> <li>▪ Create international business networking</li> <li>▪ Identify the potential to grow</li> </ul>
2	Confirming company's strategic vision	<ul style="list-style-type: none"> <li>✓ Conduct strategic due diligence precisely</li> <li>✓ Build a strong product attributes</li> <li>✓ Consider viability of the future operating models</li> </ul>
3	Clear direction based on company objectives	<ul style="list-style-type: none"> <li>▪ Start from the beginning and concluding objectives prior to starting on actions plan may have a stronger line of credit because of the combined value of the two businesses</li> <li>▪ Define contingencies or redundancies to allow for any requisite alterations</li> <li>▪ Provide the company with a compact and clear actions plan</li> </ul>
4	Managing company's reputation as the acquirer	<ul style="list-style-type: none"> <li>✓ Propose a practical and factual business cases will suddenly have many more employees and more assets to monitor, use and dispose of as the business needs change</li> <li>✓ Focus on next performance, or how to provide better support</li> <li>✓ Companies should be more purposeful</li> </ul>
5	Managing synergy among the targets across the M&As	<ul style="list-style-type: none"> <li>▪ Avoid a single initiative that weakens synergy</li> <li>▪ Synergy must be considered mainly and measured.</li> <li>▪ Do not forget organic growth, to deploy both (with organic) will be critical</li> </ul>

Sources: Telkom perspectives based on McKinsey

The competitiveness of doing M&As has led to the emergence of companies with considerable purchasing power and enormous potential[30]. Further, many companies are also eager to tap into new market, following their capability to create new products, services, and innovations. Companies are investing in R&D to better understanding the customer needs, diversify their products and so on. These companies have also been leveraging the capability of human capital (talent) to develop new markets overseas.

Although M&As activities tends to be cyclical in nature, with high risk in integration (post-merger integration), and the success rate also proved too low, but still many companies being attracted by its growing potential schemes. Following this condition, the five often-neglected institutional capabilities offers a new framework for companies wish to conduct M&As to bold their success. To be a competitive company through implementing the framework in M&As however, should be considered also the capabilities and resources to focus on it.

## 6. Conclusion

In a nutshell, of the two alternatives, growth through M&As provides the greatest possibility for a company to claim its growth faster. On the other hand, the normal way of growing could be the slower one, for instance, to grab or even to leverage established market would be a huge challenge for management, to initiate innovations through conducting a well-managed R&D department should be costly and time consumed, moreover, risks and potential failure embedded with the investment may lead the management to be reluctant for this option.

However, the success rate in conducting M&As activities worldwide has proven to be very low. Since there are huge risks embedded in every M&As, considering the framework of the five often-neglected institutional capabilities

provides companies to implement M&As with a very prudent approach. By implementing this approach, it does not necessarily guarantee the success of the initiative. However, it may have the possibility to decrease and minimize the risk.

Yet, these low success rates do not appear to have curbed business enthusiasm for growing by refocusing through some type of integration (M&As). Given the current economic and financial climate (globalization and changes by the regional economic cooperation), business leaders worldwide need to manage their resources and assets more tightly than before to build sustainable growth capabilities that can withstand the downturns and emerge stronger than before.

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# Gaining Competitiveness in the Global Business World through the Implementation of International Human Resource Management

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## Abstract

Telkom's vision to become a dominant telecommunication player in the region brings Telkom to expand its businesses internationally. The effectiveness of human resource management policies and practices across national boundaries has become a key strategy for Telkom to achieve competitive advantage in the global markets. As a Multinational Company, Telkom should be concerned about the employment practices and systems used in international affiliates for host-country nationals. The development of comprehensive IHRM policies and practices may enable firms to be more proactive in their approach to internationalization and to have a greater choice over the types of markets and countries they enter.

This paper is a study on International Human Resource Management from both empirical studies by scholars and practices that have been implemented by some multinational companies as their best practices. A theoretical framework will be elaborated on; to provide some basic knowledge about this field. It analyzes some emerging issues and best practices of some multinational companies in their implementation of international human resource management. This paper also analyzes on how Telkom implements International Human Resource Management especially in the context of regionalization strategy on its international expansion program (Inex). Some HR key practices for gaining competitive advantage will be discussed. It is limited on three important HR practices: recruiting global employee, training and development, and re-entry policy.

Based on the studies, best practices, and current analysis on Telkom's practices, some recommendations are developed to improve company's practices on international HRM in order to gain global competitiveness as a key factor in winning global competition.

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## 1. Introduction

### 1.1 Background

The telecommunication industry in Indonesia has unique characteristics compared to other countries, such as a very stiff competition, a price war, and the fact that about 30 percent of Indonesian subscribers own more than one SIM card. The competition is very intense because there are 10 telecommunication operators which serve up to 245.2 million people in Indonesia. Being a dominant player, Telkom actions shape the Indonesian telecommunication industry and are usually followed by other operators.

Telkom has the goal of becoming a leading TIMES (Telecommunication, Information, Media, Edutainment and Services) player in the region and has an obligation, as a state-owned company, to contribute to the economic and social development of the nation. To achieve such a goal and to meet such an obligation, Telkom has set up several strategic initiatives including one of the top initiatives, which is to become a center of excellence that focuses on human capital development and involvement. This initiative will deeply rely on how the company defines its HR policy and how it is implemented.

Telkom's vision to become the dominant telecommunication player in the region has caused Telkom to expand its businesses internationally. Since 2010, Telkom has expanded its overseas business from one country, which is Singapore, to six countries in 2013 and is expected to grow to over 10 countries including Australia and several countries in the Asia-Pacific region in 2015. The effectiveness of human resource management policies and practices across national boundaries has become a key strategy for Telkom in its attempt to achieve a competitive advantage in the global markets. As a Multinational Company, Telkom should be concerned about the employment practices and systems used in international affiliates for host-country nationals (Lawler, Walumbwa, & Bai, 2006). The development of comprehensive IHRM policies and practices may enable firms to be more proactive in their approach to internationalization and to have a greater choice over the types of markets and countries they enter (Monks, Scullion, & Creaner, 2001).

## 1.2 Globalization

In a situation where technology is rapidly developing, globalization in all aspects is increasingly becoming a reality. Information and telecommunications technology have narrowed the distance between countries, and sometimes the situation appears to be borderless. People in one particular country can easily find out what is happening in other countries through media such as the Internet, international TV broadcasts, Facebook, Twitter and direct communication by telephone call or internet phone. People in one country consume products that produced in another country. Free trade areas in specific regions are becoming a trend, because there is a need for collaboration among countries in those regions. They need collaboration to maximize resources, such as natural resources, energy resources, and human resources. Moreover, they need new markets in other countries.

Furthermore, the ASEAN Economic Community (AEC) will soon be implemented at the end of 2015, and it will provide all ASEAN countries both the right to do business freely and the obligation to open their markets to other countries. It means that the readiness of companies to exploit business opportunities has become a key factor. In turn, the readiness of its human resource management that suits managing employees in different countries become more important.

Briscoe, Schuler, and Claus (2009) argued that there are many factors that drive the interest and need to globalize "increased travel, rapid and extensive global communication, rapid development and transfer of new technology, free trade, education, migration of large numbers of people, knowledge sharing, pressure on costs, search for new markets, homogenization of cultures, and e-commerce". Some of those specific factors i.e. "rapid and extensive global communication, free trade, migration of large numbers of people, and search for new markets" have become the drivers for Telkom to expand its business globally.

A company that has expanded its business globally needs to implement HR or employment policies and practices that are suitable for the host-country nationals. The effectiveness of human resource management policies and practices across national boundaries has become a key strategy to achieve a competitive advantage in the global markets. A multinational company should be concerned about the employment practices and systems used in international affiliates for host-country nationals (Lawler et al., 2006). The development of comprehensive IHRM policies and practices may enable firms to be more proactive in their approach to internationalisation and to have a greater choice over the types of markets and countries they enter (Monks et al., 2001).

Managing its human resource is very important for a company if it is to beat all of its competitors. This situation becomes more complex when a company, for various reasons, has decided to expand its business internationally.

Recently, more and more companies have begun to operate in foreign markets and compete with both local and global players. Traditional human resources management practices, to some extent, will not be suitable for running a global business that deals with employees with different nationalities.

## 1.3 Internationalization Stages

MNCs have different stages on their internationalization stages. Bartlett and Ghoshal's (2000) distinguish four types of MNCs: multidomestic, international, global, and transnational. Extending on this typology, there are eight forms of internationalization process which are "internationalization through export, international division or global product division, multi-country/multi-domestic strategy, regionalization, the global firm, the transnational firm, the born-global firm, and the globally integrated enterprise" (Briscoe, Schuler, & Tarique, 2012).

Based on an empirical study, Harzing and Ruysseveldt (2004) presented three ideal-types of Multinational Company which are assessed by typology elements of "Organizational design, Interdependence, Local responsiveness, and Control mechanism". First is Global companies, which operate an industry with rather standardized consumer needs that make the realization of economic scale very important. The next is Multidomestic companies that completely reverse of global company. Product or services are differentiated to meet differing local demands, and policies are differentiated to conform to differing governmental and market demands. The last is Transnational companies which combine the characteristics of both global and multidomestic companies. This type of MNCs needs to respond to conflicting strategic

needs of global efficiency and national responsiveness. Harzing and Ruysseveldt (2004) also underlined the importance of the transfer of knowledge for these companies.

## 2. Theoretical Framework

### 2.1 Global Competitiveness and IHRM

In order to maintain their sustainability in the global market, firms need to develop a competitive advantage. Over the past few decades, competitive advantage has mostly been related to innovation in technology, branding, business processes, natural resources, and others non-human things. Companies are pursuing competitive strategies aimed at cost reduction, quality improvement, and innovation to gain competitive advantage and beat the competition – both domestically and internationally (Schuler & Jackson, 1987). They also argued that the effectiveness of firms in designing a competitive strategy can be increased by systematically melding human resource practices with the selected competitive strategy.

### 2.2 IHRM Studies Development

There is a growing literature on the area of international human resource management (Monks et al., 2001). Human resource management as an international discipline is an emerging area of academic study, the development of which is presently lacking in the integration of theory and practice (Cheng & Cooper, 2003). There is evidence, however, that North American and Western European dominate the IHRM literature (Ozbilgin, 2004). The body of knowledge on IHRM has grown significantly as can be seen in Figure 1, as a result of research by scholars and practitioners which has been stimulated by the rapid growth in international business activity (Keating & Thompson, 2004). Although it can be classified separately, they are not mutually exclusive but rather as complementary.

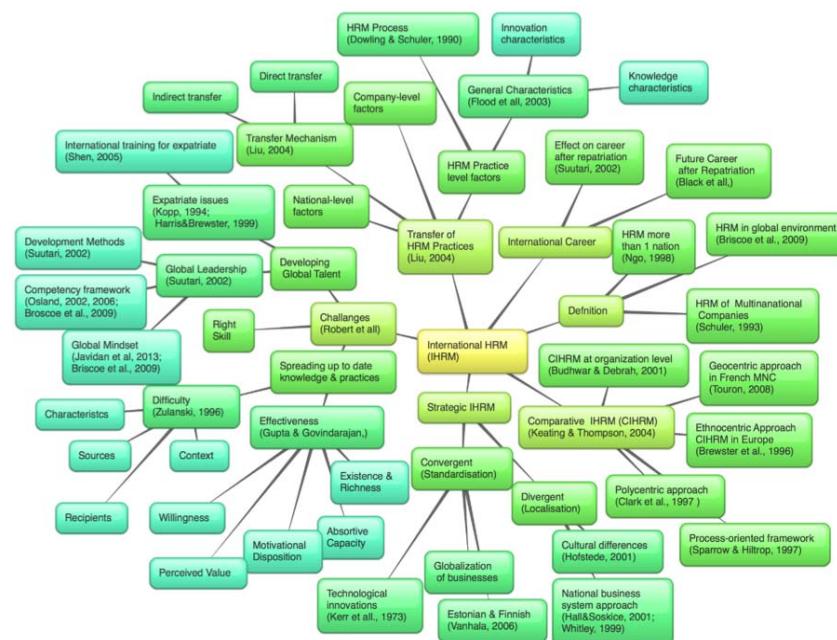


Figure 1. Mapping of Study in IHRM by Researcher

IHRM is the term used to refer to the instance where an organization's human resource management (HRM) entails managing employees in more than one nation (Ngo, Turban, Law, & Lui, 1998). Michael Armstrong (2006) defined IHRM as "the process of employing, developing and rewarding people in international or global organizations. It involves the worldwide management of people, not just the management of expatriates". A broader definition is used by Schuler and his colleagues who defined strategic IHRM as "human resource management issues, functions, policies and practices that result from the strategic activities of multinational enterprises and that impact on the international concerns and goals of those enterprises" (Schuler, Dowling, & De Cieri, 1993).

IHRM is concerned with the way in which organizations that operate across national borders manage their employees, and increasingly the term is applied to all their employees and not just those who are working internationally (Sparrow, Brewster, & Harris, 2004). Dickmann and his colleagues argued that International HRM (IHRM) has to examine

the way in which international organizations manage their human resources in different national contexts (Dickmann, Brewster, & Sparrow, 2008). Recently, Briscoe et al. (2012) defined the field of IHRM as the study and application of all human resource management activities as they impact the process of managing human resources in enterprises in the global environment.

### 2.3 Issues in IHRM

Discussion about IHRM covers a wide range of topics, De Cieri and Dowling (1999) identified three broad strands in the field of IHRM: (1) HRM in MNCs, which focus on the HR management in international companies, (2) Cross-cultural management (CCM), which deals with the impact of cultural differences on management practices, and (3) Comparative human resource management, which compares HRM systems and practice at both organizational and national levels. Very similar to previous research, Morley and Collins (2004) pinpointed three key research themes in IHRM. The first is the debate concerning the extent to which MNCs' "foreign affiliates (or subsidiaries) act and behave as local firms versus the extent to which their practices resemble those of the parent corporation or some other global standard". The second is the extent to which management practices are converging or diverging across nation states. The last is the increasing interest in international and comparative studies of HRM in a broadening range of countries.

## 3. IHRM Issues

### 3.1 IHRM Approach (Standardization vs. Localization)

One of the basic frameworks in the HRM approach applied by MNCs was introduced by Doz, Bartlett and Prahalad (1981) in an article entitled "Global competitive pressures versus host country demands: managing tension in multinational corporations". Global competitive pressures mean that company needs to coordinate its operations, both at the headquarters of its country of origin and in its overseas subsidiaries, to fully reaping the benefits of scale and scope. On the other hand, MNC is composed of a set of functions, divisions, or organizational units that operate in their respective local environments and must be sufficiently differentiated to respond to the demands of these local areas. Furthermore, Doz and Prahalad (1986) argued that responding to a variety of national demands while maintaining a clear and consistent strategy was the single biggest problem facing MNCs. Bartlett and Ghoshal (1989) identified the need for organizations to maintain a "dynamic balance" between globalization (implementing globally standard practices) and localization (adapting practices to account for the host environment) if they are to become truly trans-national.

In recent years, a body of research evidence has attempted to illuminate this debate. One critical choice faced by IHRM practitioners is whether and when an organization should adapt its human resource policies and practices to the local context (localization) or maintains the parent company's approach (globalization) (Grossman & Schoenfeldt, 2001). Indeed, regarding the issue of balancing the need for global integration and local adoption, (Chung, Bozkurt, & Sparrow, 2012) provide evidence on the need for balance between localization and globalization, based on their research on two Korean MNC's which had been transforming their HR function from a multi-domestic state to a transnational state where they can be more globally integrated and simultaneously, more locally responsive.

The global integration-local responsiveness framework has also been used in the study of European MNCs. Particularly important is the extensive database of HR practices gathered since the late 1980s by the Cranfield network on European human resource management-CRANET (Vanhala, Kaarelsom, & Alas, 2006). IHRM policies and practices are influenced by the company's structure and strategy (Ngo et al., 1998) and its institutional and cultural environments (Sparrow et al., 2004). There are two main elements that influence how MNCs manage globalization and localization issues, which are extra-organizational and intra-organizational factors. Extra-organizational factors are related with the cultural and institutional framework (Lengnick-Hall & Lengnick-Hall, 2006) and (Björkman & Lervik, 2007)). On the other hand, Chung and his colleagues highlight the significance of the role of intra-organizational factors: i.e. actor-related factors, relational factors, and procedural factors (Chung et al., 2012).

### 3.2 IHRM Comparative Study

Another concern in IHRM studies is comparative HRM (CHRM) that involves the comparison of HR systems and practices across nations and regions around the world (Keating & Thompson, 2004). Telkom has experienced this issue since it expanded its business to many different countries. Comparative human resource management is about understanding and explaining what differences exist between countries in the way that human resources are managed (Brewster, 2006). Some approaches that were used include the ethnocentric approach (Brewster, Tregaskis, Hegewisch, & Mayne, 1996), the geocentric approach (Touron, 2008), the polycentric approach (Clarck, Ebster-Grosz, & Mallory, 1997), and the process-oriented framework (Hiltrop & Sparrow, 1995).

Despite the limitations of survey methods and methodological constraints, the Cranet network's survey has provided large-scale empirical data since 1990 (Dewettinck & Remue, 2010). They have contributed significantly both to the description and understanding of developments in HRM practice in a constantly increasing number of countries and to the theoretical developments in CHRM. Most studies in CHRM were conducted to explore IHRM in Europe. Hence, there is lack of studies in other regions such as Asia, Australia, and Africa.

#### **4. Gaining Global Competitiveness through International HR Practices**

##### **4.1 Recruiting and Sourcing Global Employee**

Recruitment is a vital function of human resource management, which can be defined as the process of searching the right talent and stimulating the employees to apply for jobs in the organization. There are two sources in which a company can get employees who are globally ready: external recruitment or develop internally. Some companies prefer to develop their employees by providing necessary trainings and then assign them with international assignments in their overseas subsidiary. Other companies choose to recruit from external areas, whether from professional labor market or hijack employees from their competitors. Alternatively, recruiting can also be conducted by global employment agencies, commercial recruitment agencies, or specialized consultancies.

Sourcing is the use of one or more strategies to relate talent to organizational vacancies. It may use different sorts of advertisements, using appropriate media, such as newspapers, specialized recruitment media, window advertisements, job centers, job fair, or the Internet. There is a growing trend in using the internet as a sourcing method (Sinha & Thaly, 2013). The online recruitment market size is estimated to be US \$ billion globally (Brewster, Sparrow, Vernon, & Houldsworth, 2011). Social networking sites, such as Facebook and Twitter, allow individuals to post and share personal information, which has led many US employers to use social networking sites to screen job applicants (Withiam, 2011). As an IT based company, Telkom should be more familiar with this kind of recruitment tools, especially for Assessment Center unit.

Next issue on choosing employee for international subsidiaries is whether they are from local nationals or expatriates (nationals of the parent company or third-country nationals). Armstrong argue that there are some advantages of employing local nations such as familiar with local markets and community, speak the local language, and can contribute for a long period (Armstrong, 2006). Thus, for a long term business operation, local nationals will play important roles in the success of overseas subsidiary. However, expatriates will be required if there is lack of experience and expertise of local nationals. When a company needs to enter the market immediately, they may use expatriates instead of local nationals. For example, when starting to open new business in overseas, TELKOM, mostly used expatriates from home country (Indonesia) instead of employing local nationals.

##### **4.2 Training and Development**

Training and development plays important role since human resource is one of the most critical source of competitive advantage. Well skilled global employees will determine the success of a company, especially one that operates in global business. Once a company expanded business internationally, there will be a greater challenge for its Training and Development function because it involves multiple subsidiaries and partnership in other countries, developing global strategy, and assignment number of employees to international positions. It has to deal with local culture, local language, local laws and other local contents.

Tarique and Calligiri (1995) in Armstrong (2006) proposed that the following steps should be taken to design a training program for expatriates and local nationals:

- Identify the type of global assignment, e.g. technical, functional, tactical, developmental or strategic/executive.
- Conduct a cross-cultural training needs analysis covering organizational analysis and requirements, assignment analysis of key tasks and individual analysis of skills.
- Establish training goals and measures.
- Develop the program – the content should cover both general and specific cultural orientation; a variety of methods should be used.
- Evaluate training given.

Another issue in MNC's training and development is how to develop global leaders, since leaders will translate company's mission into actions, take decision in critical condition, and energize people to achieve highest performance. One aspect that differentiates global leadership development with traditional leadership development is the development of a global mindset, the ability to influence individuals, groups, organizations, and systems that are unlike the leader's (Javidan & Walker, 2013). This global perspective includes sensitivity to multiple cultures and their differences, work experience in

more than one country, and knowledge about how and willingness to seek customers, financial resources and supplies, technology, innovations, and employees throughout the world (Armstrong, 2006). For example, to develop its global leader, TELKOM uses Thunderbird Global Mindset Inventory that consists of Intellectual Capital, Psychological Capital, and Social Capital.

Cerdin and Brewster (2014) argued that talent management and expatriation are two significantly overlapping but separate areas of research and that bringing the two together has significant and useful implications for both research and practice. They provide framework of global talent management as a combination of high-potential development and global careers development as explained in Figure 2. The concept of global talent management captures the combination of the talent segmentation approach of talent management and the broader human resource management policies that contribute to the management of all talented employees. Global talent management is centered on the development of employees, and it includes both high-potentials development and global careers development. Global career development policies should be developed and integrated with Telkom global leadership development.



*Figure 2. Global Talent Management Framework*

Source: (Cerdin & Brewster, 2014)

Supporting the argument of the important of integrating expatriate management and talent management, Collings also pinpoints the important of the integration of global mobility and global talent management that can contribute to the success of the MNE (Collings, 2014). Global mobility represents an important element of the global staffing system of the contemporary MNE. It can be tools as part of leadership development, succession planning, and position filling.

#### 4.3 Repatriation Policies

International assignment is generally challenging, exiting, and full of exposure not only for expatriates but also for their family. They have to deal with a new situation that sometimes totally different with what they experienced before. As representatives of parent company, expatriates will be assigned a challenging job and targets. Therefore, the company will provide good facilities, compensation, and benefits. The compensation practices of most MNCs reward their international assignees quite well, the international assignee and family typically live quite well in the foreign location. In contrast, after they have finished their assignment and returned to their home country, their careers are often overlooked. Some expatriates are assigned a similar position with the one that they left a couple years ago. This kind of mishandling of returning expatriates means that a good deal of critical knowledge is lost to the organization (Brewster et al., 2011).

Integrated career planning needs to be developed prior to their assignment, during their assignment, and when they return to their home country. Re-entry policies should be designed to minimize the problems that can arise when expatriates return to their parent company after an overseas assignment. They want to be assured that they will be given a position that is appropriate to their qualifications, and they will be concerned about their careers. Brewster and his colleagues provided examples of best practice in this area include: pre-departure career discussions, a named contact person at the home-country organization, a mentor at the host location, re-entry counselling, family repatriation programmes, employee debriefings, and succession planning.

## 5. Conclusion

Since the globalization now becomes a reality, a company should exploit its business opportunity by expanding its business globally. Thus, the readiness of its human resources management that suit the managing employees in different countries become more important. The effectiveness of human resource management policies and practices across national boundaries has become a key strategy to achieve a competitive advantage in the global markets. A multinational company should concern and develop its IHRM policies and practices that enable the company to win in global business.

International Human Resource Management terms referring to the instance where an organization's human resource management (HRM) entails managing employees in more than one nation is one of the most disciplines that grow rapidly in recent decades. It is because of the growing need of business activities that require international studies and supported by many scholars who conduct research on this field. Many researches attempt to bridge the lack of integration between the theory and practices.

There are three main issues in IHRM field that should become the concern of a company in its intention of doing business globally. First is HRM in MNCs, which focuses on the HR management in international companies. The next issue is Cross-cultural management (CCM), which deals with the impact of cultural differences on management practices. The last issue is about comparative human resource management, which compares HRM systems and practices at both organizational and national level.

Company should implement and maintain global best practices on its human resources function. In recruiting global employees, there is a need to balance between local nationals and expatriates. The internet and social networking as one of sourcing strategies is widely used, providing effective and efficient sourcing methods. In the training and development, the integration of talent management and expatriate management in global career development will have significant and useful implications. Global mindset is a key aspect that should be developed in the global leader development program. Integrated career planning will be required to minimize the problems that can arise when expatriates return to their parent company after an overseas assignment.

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## How Does Culinary Local Franchise Achieve the Global Competitiveness?

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### Abstract

The purpose of this study is to examine business strategies established by local franchise to achieve a global competitive advantage. Since the franchise become the easiest way to start a business, it is necessary to formulate strategies in running business processes according to the vision, mission and organizational culture of the franchisor company. This research is descriptive research that describes the theory of strategy then analyze with the existing conditions of the example company. An example of company is chosen by judgmental sampling technique, and that is Es Teler 77 – the local franchise that has developed 180 outlets across Indonesia and abroad. This research uses SWOT analysis. This research found that: (1) Es Teler 77 retains the initial fee and the management fee which are supported by Good Corporate Governance procedures to reduce activities that require government bureaucracy, (2) to overcome the competition, Es Teler 77 establishes both of distribution and kitchen centre, and (3) to overcome the low position of the substitution services, Es Teler 77 takes advantage of advances in technology to establish beneficial cooperation with suppliers, for example: to build business networks through coordination based business partnership that aims to increase the added value of products. This research concludes that business strategy which becomes the key success of Es Teler 77 franchise is a strategy that maximizes the internal strength possessed to counter threats from the environment. These technical strategies could be learned and implemented by developing Small and Medium Enterprises (SMEs) to achieve global competitiveness.

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### 1. Introduction

Nowadays, franchising is one of the easiest ways to start a business. Franchising is defined as a long-term, continuing business relationship wherein for consideration, the franchisor grants to the franchise a licensed right, subject to agreed requirements and restrictions, to conduct business utilising the trade and/or service marks of the franchisor and provides to the franchisee advice and assistance in organising, merchandising, and managing the business conducted to the licensee [1]. The company granting these rights is deemed the franchisor, the receiver of these rights the franchisee, and the right is defined as the franchise. The franchiser owns a trademark or brand, which he (or she) agrees to allow the franchisee to use for a fee (often an original purchase price plus a percentage of sales). The franchiser provides the franchisee with assistance (financial, choice of site, and so on) in setting up their operation, and then maintains continuing control over various aspects of the franchisee's business; for example, via the supply of products, discussion of their marketing plans and/or centralized staff training [2].

The franchising arrangement may be viewed as an agency relationship in which the franchisor (principal) is reliant upon franchisees (agents) to undertake actions on their behalf [3]. Franchising organizations differ from other business, based on

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three important points [4] are:

1. Geographic dispersal of organizations units
2. Replication across units
3. Joint ownership

Franchisors typically develop product or service ideas and offer the ideas to franchisees for marketing. In return, franchisees pay initial fees and royalties to franchisors. Franchisors formulate overall business strategies and expect franchisees to function as integral parts of a system by implementing the strategies. However, franchise may enjoy relative freedom in recruiting personnel, managing routine operations and running local marketing programs [5]. In previous research [6], there are two key generally used to explain franchising: (1) resource scarcity, and (2) agency theory.

In Indonesia, the franchise Franchising is defined as constituted by Government Regulation No. 16, 1997, the date June 18, 1997 and supported by the Minister of Trade Regulation No. 12 / M-DAG / PER / 3/2006 Section 1 Paragraph 1, of the rules and procedures for the issuance of certificate of registration of the franchise. In the sense of purpose and procedures specified in Government Regulation on the franchise above, it can be explained that the franchise in Indonesia:

1. There is a clear legal bond between the franchisor with the franchisee.
2. There is a process of exchange between the rights and privileges granted by the franchisor with a sum of money and other requirements as a condition of the agreement.
3. Recipients must meet the requirements of a franchise that has been approved in the bond law.
4. Similarly, the franchisor must provide the support and training of its human resource.

According to Waralaba & Lisensi Indonesia (WALI) and the Ministry of Commerce data, franchise companies (franchisors) who has had a Franchise Registration Certificate (STPW) until 13<sup>th</sup> December 2013, as many as 125 companies. In Indonesia, the number of foreign franchisor as much as 60% and the local franchisor is only 2.4%. Bases on the type of business, franchise business areas of food/beverage is 49.6%; retail field is 24%; education is 20.8%; repair services is 6.4%; hotels is 1.8%; and real estate is 0.8% [6]. According to the Ministry of Commerce in 2012, foreign franchise business grew by 6.25%, while the local franchise of 11.7%. In 2013, foreign franchise business grew by 8% and 14% for the local franchise [7].

The revenue of franchise in Indonesia reached Rp.110 trillion in 2012 and reached Rp.114 trillion in 2013 [8]. Foreign and local franchise competition is very tight between 2013 and 2014. There are 300 foreign franchise brands that currently suppress local franchise. Desirable that they foreign franchise into Indonesia since the year 2013 was a special start medium scale investments [9]. In 2013, has many franchise from Japan, Malaysia and Korea were opened brand stores like Yoshinoya, 7 Eleven, Lawson, Bonchon Chicken, Family Mart, Old Town White Coffee and etc. [10].

Intense competition from foreign franchise led to the growth of the local franchise weakened, which only grew by 2% in early 2014, indicating that Indonesia only as a market, instead of producing the franchise only. According to the Director General of Domestic Trade Ministry of Commerce, Srie Agustini, the difficulty is the lack of local franchise growing role is the government factor [9] as well as the consistency factor of less than the franchise players in order to prepare for a potential business franchise. They do not ready to determine how the local franchise business form and business strategy to compete [6].

Chandler mentioned that the strategy is long-term goals of an enterprise, as well as the utilization and allocation of all resources necessary to achieve these goals [11]. Andrews & Chaffe revealed the strategy is to force the stakeholders, such as stakeholders, debt holders, managers, employees, customers, communities, government and so on, that may directly or indirectly receive benefits or the costs incurred by all actions taken by the company [12]. Strategy is a very important tool to achieve competitive advantage [11]. Good understanding of the concepts and strategies of other concepts related, largely determine the success of the strategy. These concepts include:

1. **Distinctive Competence**, which means that the company struggle harder to perform the activities better than competitors. Day and Wensley (1988) identified as: (1) labor and expertise, (2) the ability of resources.
2. **Competitive Advantage**, which means that the company develop specific activities to be more superior compared to its competitors. Competitive advantage due to the choice of the company strategy to seize market opportunities.

There are three strategies to gain a competitive advantage, which are: (1) cost leadership, (2) differentiation, and (3) focus. In principle, the strategy can be grouped according to three types of strategies:

1. **Management strategies**, including strategies that can be performed by management with strategy development orientation the macro for example, product development strategies, pricing strategies, acquisition strategies, market development strategies, financial strategies and so on.
2. **Investment strategy**, which is an investment-oriented activities. For example, if the company wants to make an aggressive growth strategy, or trying to hold market penetration, survival strategies, the strategy of rebuilding a new division or divestiture strategies and so on.
3. **Business strategy**, which is often referred to as a functional business strategy because this strategy oriented to the functions of management activities, such as marketing strategy, production or operational strategy, distribution strategy,

organizational strategy, and strategies related to finance. This strategy is more operationally functional as it will be directly implemented by functions-management functions that exist underneath.

However, according to the Indonesian Retailers Association and the Indonesian Franchise Association, in the middle of the competition of foreign and local franchises, there are several local franchise excel, grow and have been expanding into overseas markets (going international), one of them is Es Teler 77. Es Teler 77 has been franchised since 1987 and currently has 180 outlets throughout Indonesia. Es Teler 77 outlets have also opened in Singapore, Malaysia, Melbourne (Australia) and New Delhi, India [13].

The success of Es Teler 77 entry into the foreign market has not much to examine, especially how to run a business strategy over the years and adapted to the franchise business system naturally. Therefore, the principal purpose of this study is to describe the business strategy that established by Es Teler 77 as a local franchise in integrating its business in culinary industry. The ultimate goal of this study is to present a point of few of the future business strategy that can be manifested in Small and Medium Enterprises (SMEs) which run the franchise in order to achieve global competitiveness.

## 2. Method

This research is the descriptive research that explains the theory of business strategy and collaborates with the specified object. An object in this study is determined in accordance with the purpose of research with judgmental sampling method so that the set Es Teler 77 - a local franchise with 180 outlets cross Indonesia. Here is the Framework of Thinking on this research.

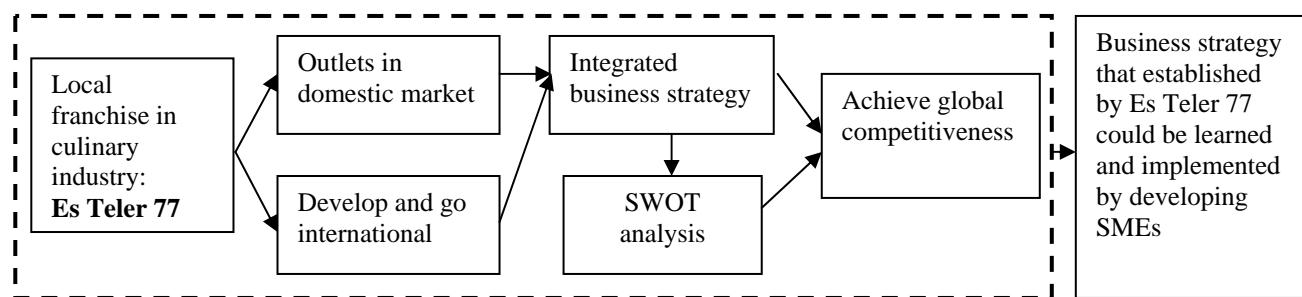


Fig 3. Framework of Thinking

The data used in this study is a secondary data obtained from various literature sources such as journals, books, newspapers and business magazines as well as information on the official web of the objects. In doing analysis, this research will start in conducting an environment (both external and internal) analysis of Es Teler 77. This environment factors related to the account in the management of business activities.

Glueck [14] revealed that the environment is factors that are beyond the reach of the company which can state opportunities or threats to the company. These factors consist of:

1. Macro environment: politics, economics, social and culture, and technology.
2. Industry environment (Porter's Five Forces) consist of: rivalry among existing firms, threat of new entrants, threat of substitute products or services, bargaining power of buyers and bargaining power of suppliers.

The internal environment includes the resources, capabilities and competencies that can be used to establish market positions. Internal analysis aims to determine the capabilities and competences in the company based on the condition of the company, so that the level of competitiveness of enterprises can be determined. According to Ansof, the simplest way to perform an internal analysis is by analyzing the functional. Expertise and resources of the company can be set to the appropriate competence profile business functions such as marketing, finance, operations, human resources and R & D [15].

The next will be an analysis of the functional strategies is the key to the success of the company Es Teler 7 by using SWOT analysis is to identify the various factors systematically to formulate the strategy of company. SWOT analysis are used widely in the field of business. They provide a means of analyzing policy choices as well as evaluating programs and initiatives. SWOT analysis generally consider strengths and weakness as being specific to the individual, group or policy under evaluation [16].

SWOT analysis is an efficient way to organize thinking, assess status and develop an action plan to move to the next level [17]. This analysis is based on the logic that maximizes strength and opportunities, but at the same time can minimize the weakness and threats. Strategic decision-making process is always associated with the development of the mission, objectives, strategies and policies of the company. Thus strategic planning (strategic plan) must analyze the company's strategic factors (strengths, weaknesses, opportunities and threats) in the conditions that exist today. This is called the Situational Analysis [18].

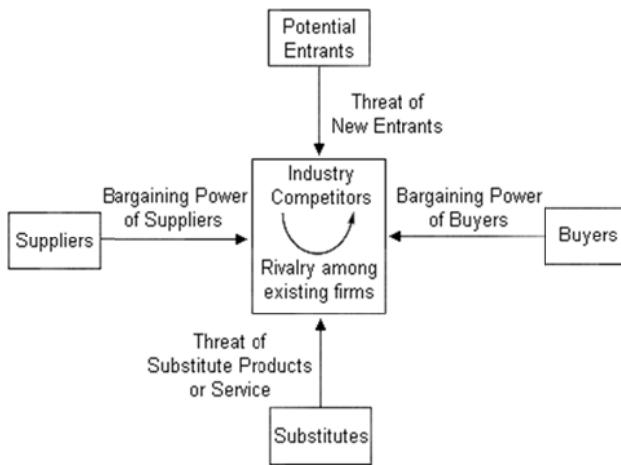


Fig 1. Porter's Five Forces [16]

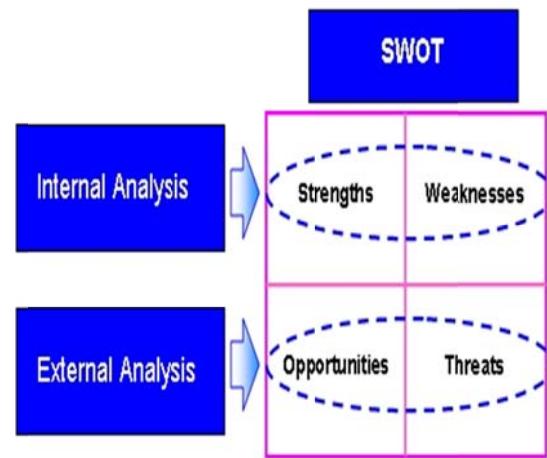


Fig 2. SWOT Analysis [16]

After completing both of environment and SWOT analysis, the final results regards analysis of business strategies Es Teler 77 can be learned and implemented by the Small and Medium Enterprises (SMEs) in Indonesia.

### 3. Results and discussions

#### 3.1. Franchise: Es Teler 77

History of Es Teler 77 starts since 1981 by Muniarti Widjaja who won the culinary competition in Jakarta. This culinary business is a family business that is handled directly by Muniari Widjaja, Trisno Budijanto (husband), Yenny Setia Widjaja (child) and Sukyanto Nugroho (son) which was established beginning in July 7, 1982 with the initial location was in the courtyard Duta Merlin mall in Jakarta. Es Teler 77 serving food and drinks popular Indonesian snacks with the concept of fast food. In 1987, Es Teler 77 began a franchise with partners in Solo for the first time. In addition, the business concept was designed to follow the lifestyle trends and hereinafter establishment into CV. Es Teler 77 toughest obstacle faced by the owner in 1994 was discrimination from managers and owners of the plaza and the building management who prefer foreign brands over local businesses. Thus the stronger the commitment of the owner to use the Es Teler 77 franchise system to expand the business network. Now, Es Teler 77 has become a big company with the name of PT. Top Food Indonesia, which holds the master franchise Es Teler 77 [19].

Since November 2000, Es Teler 77 was awarded the Enterprise 50 Award from Adersen Counsulting and SWA business magazine. Currently, this franchise has been named as a Top Franchise ASEAN and The Best in Franchise Support and Indonesia Franchisor of the Year since 2009, the magazine Franchise Info Indonesian and Indonesian Franchise Association. This success is evidenced by the successful open 180 outlets across Indonesia and employs two thousand employees ([bisnis.news.viva.co.id](http://bisnis.news.viva.co.id). Retrieved on August 2, 2014). Es Partners Teler 77 currently reached 200 partners so that no one has been named as Life Time Achievement Award 2012 in the Indonesia Franchise Conference 2013 [19].

**Vision :** Making partners production and distribution of high quality, robust, reliable and trustworthy in serving whole activities efforts of Es Teler 77 branches in Indonesia and overseas.

**Missions :**

1. Providing quality products and goods, sufficient, timely and competitive prices.
2. Provide satisfactory distribution service.
3. Supporting business development Es Teler 77

#### 3.2. External and Internal Environment Analysis

Business competition is now indicated by the presence of rapid technological development, short product life cycle, and more intense global competition. Conditions of competition are forcing organizations to look for new ways to achieve a competitive advantage because of its competitive advantage in its current state is very dependent on the efficiency and

productivity across functional areas within the organization. To be responsive to customer needs and market demand, the company needs a strategy prompt delivery and high quality products.

### a. Macro Environment Analysis

Table 1. Macro Analysis

No.	Dimensions	Analysis of dimensions
1.	<b>Politics</b>	<ul style="list-style-type: none"> <li>1. In Outlook 2011 to 2015 by the Economist Intellegence Unit explained that in the medium term, the political situation in Indonesia can be said to be stable.</li> <li>2. Law No. 34 of 2000 on Regional Taxes and Regional Rentribution is still exist in order to improve the ability of local provinces' finance. The rate of definite is valid for specified City Tax with local regulation, but should not be higher than the maximum rate stated in the Act and no double taxation.</li> <li>3. Ministry of Trade Regulation No. 53 of 2012 on the Implementation of Franchise, which is one of the rules that govern the requirements to start a franchise business activity after running for 5 years as well as limit the number of outlets to be opened by the business owner.</li> <li>4. Tax reform the government and to the detriment of long bureaucratic entrepreneurs in terms of time and cost.</li> </ul>
2.	<b>Economics</b>	<ul style="list-style-type: none"> <li>1. Inflation end of July 2014 is 4.53% [20] that affect the economic growth is not a big problem because it is still under control.</li> <li>2. Reference interest rate (BI rate) is still maintained at 7.50% as of 14<sup>th</sup> August 2014 [20]. Indonesia's economic expansion is due to the large boost industrial production and export growth significantly after the global crisis that occurred.</li> <li>3. The growth of Indonesian economy grew significantly compared to the other countries. 5.6% economic growth for next year is a growth rate that is realistic and conservative.</li> <li>4. In the industry that run to the franchise system, according to data from the Ministry of Commerce in 2012, foreign franchise business grew by 6.25%, while the local franchise of 11.7%. In 2013, foreign franchise business grew by 8% and 14% local franchise.</li> <li>5. Preparation for the ASEAN Economic Community in 2015, it is estimated that a foreign franchisor will be free to develop its business in Indonesia.</li> </ul>
3.	<b>Social and Culture</b>	<ul style="list-style-type: none"> <li>1. Changes in lifestyle Indonesian people in general are changing of the fast-food culinary. Since the year 2013, an increase of fast food consumers accounted for 63% of total urban households in Indonesia.</li> <li>2. Although the classy location such as plazas and malls, the taste of Indonesian people are still prefer to traditional food with specific spices. So the number of franchises increased yet unique in as much as a number of shopping centers.</li> </ul>
4.	<b>Technology</b>	<ul style="list-style-type: none"> <li>1. The development of marketing technology is higher such as online promotion. Technological advances can provide consumers the opportunity to see the presentation given by the provider before deciding to purchase, through the official web developed company.</li> <li>2. The development of technology for the organization, making easier for taking decisions in the company. Enterprise resource planning (ERP) for example, which setting to facilitate the stakeholders to take strategic and operational decisions.</li> <li>3. Advances in technology support companies to develop cooperation in order to improve added value on products or services rendered. One example is the Member Card of Es Teler Flazz 77 for multi-functional.</li> </ul>

## b. Industry Environment Analysis

Table 2. Porter's Five Forces Analysis

No.	Dimensions	Analysis of dimensions
1.	<b>Rivalry among existing firms</b>	<ul style="list-style-type: none"> <li>1. The number of competitors is very much at the same level, with the condition of competing with foreign and local franchises, especially in the culinary business. Growth in the number of competitors continues to increase from year to year. Foreign franchise grew by 7% and the local franchise grow up to 3% by 2013 [21].</li> <li>2. The growth of the franchise industry culinary increased to 50% which consists of food and beverages with a variety of product innovation. Business growth is sustained by economic growth [19].</li> </ul>
2.	<b>Threat of new entrants</b>	<ul style="list-style-type: none"> <li>1. Economies of scale to start the culinary franchise named the large economic scale because it requires a lot of funds. Initial capital and franchise fees affect profit franchise business tenants. Period to hold the franchise rights must be extended, including the cost of the location. Franchise fee must also be paid to the franchisor annually with a turnover of 12.5%.</li> </ul>

Table 2. Porter's Five Forces Analysis (continue)

No.	Dimensions	Analysis of dimensions
2.	<b>Threat of new entrants</b>	<ul style="list-style-type: none"> <li>2. Consumer loyalty Es Teler 77 very strong and continues to increase over time as the company providing innovation menu, product quality and comfort. This suggests that to develop the franchise, consumer loyalty and effort needed to maintain it in order not to switch and choice another competitor.</li> </ul>
3.	<b>Threat of substitute product or service</b>	<ul style="list-style-type: none"> <li>1. The number of substitute service for traditional culinary offerings are numerous and easily found at various locations. However, when compared to product quality and comfort, Es Teler 77 is still a calculation and not many restaurants that offer services resemble Es Teler 77.</li> </ul>
4.	<b>Bargaining power of buyers</b>	<ul style="list-style-type: none"> <li>1. Number of important buyers who choose Es Teler 77 very much, especially for traditional foods consumer, so that they have low bargaining power.</li> <li>2. Contributions consumer against a very large increase in the number of outlets. Increasing the number of outlets in major cities across Indonesia continues. This is due to consumer demand. Even planned to open 30 new outlets across Indonesia with an investment of 1 billion / outlets and 5 in India and 2 in Malaysia [18]. In general, the low bargaining power of consumers to service fast food and beverages classy cafe.</li> </ul>
5.	<b>Bargaining power of suppliers</b>	<ul style="list-style-type: none"> <li>1. The number of suppliers of raw materials that meet the needs of Es Teler 77 has become pretty much an ongoing partner. The company partners meet the standards set by Es Teler 77 to become a raw material quality food and beverage products.</li> <li>2. Availability substitute suppliers of raw materials to meet the needs of very much but Es Teler 77 consistently make the selection of supplier selection. Es Teler 77 bargaining power is strong enough because not all suppliers can supply the raw materials.</li> </ul>

### c. Internal Environment Analysis

Table 3. Internal Analysis

No.	Dimensions	Analysis of dimensions
1.	<b>Marketing</b>	<ul style="list-style-type: none"> <li>1. Reputation brand equity owned Es Teler 77 has become famous and Top of Mind as the best standard franchise in the culinary industry in Indonesia.</li> <li>2. Geographical scope for extensive promotional activities and are at strategic locations, such as malls and luxury in the downtown plaza, offices and business centers.</li> <li>3. The growth of the market is described by a local franchise growth is slowing while the foreign franchise growth is very rapid and the more numbers in the domestic market.</li> <li>4. High price for products.</li> </ul>
2.	<b>Operation</b>	<ul style="list-style-type: none"> <li>1. Supply of raw materials from selected suppliers with raw materials centralized planning system (decentralization) for certain items that require the best standard control.</li> <li>2. Operational efficiency is done by establishing: (1) the distribution center and (2) a central kitchen. Distribution center providing material needs with the best quality standards and store and send all the materials to outlets throughout Indonesia. While the central kitchen duty to process materials that needed food and beverage outlets by Es Teler 77, are scheduled to be sent to all outlets.</li> <li>3. Product quality Es Teler 77 accompanied by differentiation favored by consumers, which despite being sold was ice teller, but the package in such a way become the cafe drinks, instead drink a cheap way. In addition, the advantages of traditional menus Es Teler 77 are various.</li> </ul>
3.	<b>Human Resource</b>	<ul style="list-style-type: none"> <li>1. Skilled and experienced employees who are supported by the availability of training and self-development center in Tower Top Food.</li> <li>2. The number of employees is approximately 20,000 people throughout Indonesia. Total number of employees is very helpful in carrying out business activities in an integrated manner.</li> <li>3. Refineries employees focused on Development and Training Center is located in the Tower Top Food. The training center is to be the first among a national brand franchise.</li> <li>4. The training given to the employees who will be in charge at home country and abroad with a comprehensive learning facility. The training material was composed of environmental adaptasi way, communication and leadership.</li> </ul>
4.	<b>Organizational</b>	<ul style="list-style-type: none"> <li>1. Development of a futuristic vision and mission of the business conditions. Es Teler 77 doing business accompanied the vision and mission as well as to consider the ability of a partner in the franchise.</li> <li>2. Culture of organizations today is professionals though at its inception is a family company founded by husband and wife, and son-in-law.</li> <li>3. Es Teler 77 runs with a strong franchise system, consisting of: (1) initial fee and (2) the management fee. The company also continued to build structured operational teams.</li> </ul>

### 3.3. SWOT Analysis

Table 4. SWOT Analysis

	<b>Strengths (S):</b>	<b>Weakness (W):</b>
	<ul style="list-style-type: none"> <li>1. Reputation of Es Teler 77 brand equity has become famous and Top of Mind.</li> <li>2. Geographical scope for extensive promotional activities and the strategic locations.</li> <li>3. Large and growing market share.</li> <li>4. It has well distribution centers and (2) the central kitchen in the franchise system.</li> <li>5. Quality products that differentiated in Es Teler 77 menu offers.</li> <li>6. Es Teler 77 runs a strong franchise system, consisting of: (1) initial fee and (2) the management fee.</li> <li>7. Consumer loyalty of Es Teler 77 very strong and continues to rise time by time.</li> </ul>	<ul style="list-style-type: none"> <li>1. The price offered by Es Teler 77 relatively expensive, although with the best product quality and comfort for consumers.</li> <li>2. Less than meets the needs of employees in accordance with the standards, especially employees who are sent to work on overseas outlets (professionalism in work).</li> <li>3. Center training and personal development in the Top Food Tower training for employees requires a long time.</li> <li>4. Availability replacement suppliers to meet the raw material needs much.</li> <li>5. Still not maximize information technology in marketing the product.</li> </ul>
<b>Opportunities (O):</b>	<b>Strategi SO:</b>	<b>Strategi WO:</b>
<ul style="list-style-type: none"> <li>1. Law No. 34 of 2000 on Regional Taxes and Regional Rentibusi in order to improve the ability of local finance.</li> <li>2. Changes in people's lifestyles are increasingly fond of the Indonesian culinary concept fast.</li> <li>3. Taste of Indonesian people in general is still fond of traditional food.</li> <li>4. The development of marketing technology such as the online promotion.</li> <li>5. The development of technology for the organization so as to facilitate decision-making in the company.</li> <li>6. Advances in technology support companies to develop cooperation.</li> <li>7. An economy of scale to start culinary franchise requires a lot of funds.</li> </ul>	<ul style="list-style-type: none"> <li>1. Improving the quality of services Es Teler 77 join with others to increase the added value. For example, the banking payment system. The service is Flazz Es Teler 77, a member card that in 2 months time of its release, has reached 20,000 cards in all outlets. This innovation can be enhanced by cooperating with other services that support the business activities of Es Teler 77.</li> <li>2. Es Teler 77 can make a booking via the online innovation in the form of application for the gadget users.</li> </ul>	<ul style="list-style-type: none"> <li>1. Improve employee refineries focused on Development and Training Center is located in the Tower Top Food. The training center is to be the first among a national brand franchise.</li> <li>2. In order to cover the high prices of the products offered, the Es Teler 77 can develop a franchise-based business-oriented e-commerce value-added, and strategies are published to the public.</li> <li>3. Conduct regular visits to each outlet to determine the appropriate implementation of standard work procedures.</li> </ul>
<b>Threats (T):</b>	<b>Strategi ST:</b>	<b>Strategi WT:</b>
<ul style="list-style-type: none"> <li>1. Tax reform the government and to the detriment of long bureaucratic entrepreneurs in terms of time and cost.</li> <li>2. Ministry of Trade Regulation No. 53 of 2012 on the Implementation of Franchising.</li> <li>3. The interest rate increases.</li> <li>4. The number of competitors is very much on my level.</li> <li>5. Number of services substitute for traditional culinary offerings are numerous and easy to find</li> </ul>	<ul style="list-style-type: none"> <li>1. Maintain the initial fee and the management fee which is supported by good corporate Governance thereby reducing the activity that requires the government bureaucracy.</li> <li>2. To overcome the competition, Es Teler 77 can improve the quality of the supply chain from upstream to downstream by increasing integration both distribution centers and central kitchen. Distribution center providing material needs with the best quality standards and store and send all the materials to outlets throughout Indonesia. While the central kitchen duty to process materials that needed food and beverage outlets, and then sent to all outlets.</li> <li>3. To overcome the low position of the substitution services, Es Teler 77 can take advantage of advances in technology to establish close cooperation with suppliers, ie to build business networks through coordination based business partnership that aims to increase the added value.</li> </ul>	<ul style="list-style-type: none"> <li>1. To overcome the shortcomings that are owned by companies, especially concerning human resources, Es Teler 77 can develop a learning network, which aims to improve the knowledge and capability in running the business.</li> <li>2. To overcome the expensive price, then Es Teler 77 can perform supplier selection to selectively reduce operating costs.</li> </ul>

### *3.4. Central Kitchen and Distribution Centre of Es Teller 77*

One of the preferred strategies Es Teler 77 in enhancing the competitive advantage is the existence of a central kitchen along with its distribution center to meet the needs of high quality raw materials. Facilities in the central kitchen used to make food ingredients and beverages outlets required by Es Teler 77 distribution centers are used to store and send all the raw materials to outlets 77 Ice Teler throughout Indonesia. With these facilities Es Teler 77 can provide the materials needs with the best quality standards. Central kitchen and distribution center in West Jakarta first established in 1997 and has just moved to a new location in Serpong, Tangerang with better facilities. Strategies distribution center and central kitchen are rarely owned by another local franchise, taking costs and supply chain network strategy. This is the key to success in competing Es Teler 77, which technically: (1) handles both whole raw food materials and ingredients for daily cross for all outlets in Indonesia although the franchise system, (2) there is a distribution center to support the supply chain and integrates with kitchen centers to develop innovative products, (3) Decides centralize by maintaining few of various suppliers and; (4) integrates with developing partners to provide transportation services. Both of these centers can also be learned and implemented by local franchise and other small-scale medium to compete globally.



Fig 4. Kitchen Center of Es Teler 77.

## **4. Conclusion**

This study concludes that the primary business strategy is done by Indonesian local franchise, the example Es Teler 77, to achieve a competitive advantage globally is owned maximize internal strength to reduce the threats of macro and industry. Strategies include: (1) retain the initial fee and the management fee which is supported by good corporate Governance thus reducing the activities that require the government bureaucracy, (2) To overcome the competition, Es Teler 77 improves the quality of the supply chain from upstream to downstream by increasing the integration both of distribution and kitchen center, and (3) to overcome the low position of the substitution services, Es Teler 77 takes advantage of advances in technology to establish close cooperation with suppliers, ie to build business networks through coordination based business partnership that aims to increase the value plus.

For distribution centers and central kitchen, this strategy can be learned and implemented by the developing Small and Medium Enterprises (SMEs) with the aim to control the quality of raw materials, strictly selecting suppliers and increase the added value of an integrated business.

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## Indonesian Employees' Writing Skills, Linguistic Intelligence, and Critical Thinking Levels

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### Abstract

Former studies have shown that the ability to write should be supported by high reasoning capability called critical thinking. Separately, previous studies also show that the ability to write must be accompanied by proficiency in the language called linguistic intelligence. This paper presents research into Indonesian employees' writing skills and its relationship with critical thinking and linguistics intelligence level. The method used is descriptive quantitative by taking a sample of 137 people who contributed in a global competitiveness test called Global Talent Program. The finding shows there is a significant relationship between the employees' writing skills, linguistic intelligence and critical thinking levels. The results of the study are expected to motivate each individual in a learning organization to sharpen his/her critical thinking skills and linguistic intelligence so as to improve one's performance in communicating his/her writing in order to be recognized internationally.

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**Keywords:** Global competitiveness; writing skill; linguistic intelligence; critical thinking; performance

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### 1. Introduction

A number of studies on the relationship between writing skills and the level of linguistic intelligence as well as writing skills and the level of critical writing have been widely conducted. This can be seen in the reviewing papers of Ahmadian and Hosseini [1], Khodabakhsh et al [2], Tsai & Lin [3], Fahim and Anshori [4], Harkla [5], Idrus and Abdullah [6], Iskifoglu [7]. This shows that the interest in studying the relationship among writing skills, linguistic intelligence and critical thinking is very high. The majority studies above took the sample of students [8-14]. However, a similar research with the employees taken as the sample is still rarely found.

In business field, globalization has caused a more competitive working market to occur that significantly influences the quality of employees. Companies are currently operating in a significantly competitive environment [6]. Prabhakar cited in Idrus [6] states that in selecting new employees, the companies manage to hire the right employees with the right skills. A study shows that 75% of the long term successful working depends on the *soft skill* and only 25% of the success may rely on the technical knowledge. Therefore, individuals who have the ability to communicate effectively and have the capability of performing required tasks are significantly required. Communication ability is one of the most required skills from certain individuals, required particularly by the employers. Zedeck&Goldstein cited in Idrus [6].

English has been widely accepted as the mostly used language in the world since it functions as the main means of global communication [15]. In business field, English as the international language has become the language of *de facto*.

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Therefore, in challenging the global competition, every business people must be able to communicate well using English [15].

In order to be able to communicate well, one's must comprehend the four basic skills of languages comprising listening, reading, speaking, and writing. Furneaux cited in Ahmadian & Hosseini [1] declared that writing is essentially a social act, a means of communication, and according Tsai and Lin [3] writing has always been considered a complicated and multifaceted task especially when it comes to writing in a second or foreign language. Yet for English as a foreign language learners, writing is essential language reinforcing skill [2]

Writing skills are prominent in life, yet many scientists, practitioners, and business people in Indonesia do not master the skill. Fahim & Anshori [4] states that the low writing skills of the Indonesian people, including lecturers, practitioners, business people, and college students, are a reality that Indonesians are not used to writing their ideas productively.

After observing the issue at PT. Telkom Indonesia, as one of the biggest state owned companies in Indonesia, several problems relating to the employees' writing skills was discovered. The problems identified are: (1) employees' low interest towards the writing activities, (2) employees' lack ability in developing an idea or thoughts in writing, and (3) employees' lack ability in organizing the meaningful ideas. These conditions are uncovered through the observation on the examination results of the employees who are going to participate in the *Global Talent Program*. This program is a specified task for PT. Telkom employees who are talented in order to be made into great people aiming to win the competition and achieve business objectives through international assignation and certification experience.

Related to the statement above, Leki cited in Harklau [5], specifies that it is vitally important to understand foreign language writing development and its own right and to consider all the traits that affect writing and empower it. Recently, the importance of writing has been realized much better, unfortunately it is still seen less common than other skills to be measured and evaluated. In fact writing is one of the productive skills along with speaking; it is among the important skills and there are a lot of cognitive and mental factors that may affect writing ability [1]. Furthermore, in speaking, paralinguistic means, such as gestures, nodding, etc. can be used to make speakers get the intended meaning clearly, whereas writing is purely based on linguistics [8].

As the name implies, linguistic intelligence is directly related to language abilities, including writing [1]. One's ability to express ideas or thoughts is also influenced by the linguistic intelligence. Linguistic intelligence is the ability owned by individuals involving one's intuition towards the spoken and written language, ability to learn language, and ability to use the language in order to achieve particular goals [16]. Based on the explanation, the writer assumes that linguistic intelligence relates closely with the English learning; one of them is the writing skills. According to Gardner in Sharifi [14], writing activity is one of the activities mastered by individuals with certain linguistic intelligence.

Besides linguistic intelligence, the ability to think critically is a determining factor for the successful in writing since it shows the logical, clear, and firm idea of organization. As stated by Elbow cited in Khodabakhsh [2], One of the applications for critical thinking in the world of education is writing. The ability to think critically can be acknowledged or measured through various forms of activities such as speaking and writing [11].

As such, the major concerns of this paper are to determine the degree of correlation among the Indonesian employees' writing performance, linguistic intelligence and critical thinking levels. The aim is to highlight the necessity of taking individual differences into consideration in writing skills. If it turns out that this intelligence and critical thinking have any positive relationship with employees' writing ability, there would be a new trend to help the employees improve and develop their writing skills.

## 2. Method

The object of this research is the ability of PT. Telkom Indonesia TBK employees in writing using foreign language, the level of their critical thinking, and their linguistic intelligences. The selection of research object and subject was based on the consideration that Global Talent Program demands employee selection based on their language skills; writing skills in particular. Based on the data in 2013 from Telkom Corporate University, as one of the Global Talent executives, there were 420 employees participating in the selection of the program. The samples in this research, after being selectively calculated using Slovin formula with the margin of error of 7%, were 137 persons of the total population participating. Sampling technique was performed accidentally. The technique is said as *non-probability sampling* technique which determines the sample based on a spontaneous factor. Spontaneous means that any sample meeting the characteristics is voluntarily willing to be the respondents.

### 2.1 Research Method

This research was causality. Data analysis technique used regression analysis aiming at discovering the impact of a particular variable over the others. Every regression analysis shall automatically be followed by correlation analysis. However, the correlation analysis may not be continued with the regression analysis.

## 2.2 Tools

One's ability to express ideas or thoughts is also influenced by the level of linguistic intelligence [10]. Linguistic intelligence is the ability owned by individuals involving one's intuition towards the spoken and written language, ability to learn language, and ability to use the language in order to achieve particular goals [16]. The characteristics of linguistic intelligence comprise: the passion of writing creatively at house, composing fictitious story, telling jokes and fairytale, having strong mind in memorizing names, dates, or small things, enjoying reading books in the spare times, spelling out words fast and easily, enjoying funny rhymes and word games, enjoying crossword puzzle or playing games such as scrabble or anagram, enjoying to listening spoken words (story, radio program, reading books, etc.), having extensive vocabularies for particular age group, and having excellences at school lessons involving the activities of reading or writing [18].

Thinking critically is a process of making use the ability to think effectively that it may assist one to make, evaluate, and decide on what to believe and what to do. One premier tool for surveying the dispositional aspects of critical thinking is The California Critical Thinking Disposition Inventory (CCTDI) [7]. The CCTDI is specifically designed to measure the disposition to engage problems and make decisions using critical thinking [17]. The CCTDI measures seven attributes that influence an individual's capacity to learn and to apply critical thinking skills effectively: the disposition toward truth-seeking or bias, toward open-mindedness or intolerance, toward anticipating possible consequences or being heedless of them, toward proceeding in a systematic or unsystematic way, toward being confident in the powers of reasoning or mistrustful of thinking, toward being inquisitive or resistant to learning, and toward mature and nuanced judgment or toward rigid simplistic thinking. Thinking critically is a process of making use the ability to think effectively that it may assist someone to make, evaluate, and decide on what to believe and what to do.

## 3. Results & Discussion

### 3.1 Research Results

The results of the research and data analysis are intended to test the specified hypothesis. The technique used in the testing was multiple linear regression statistics. The analysis is intended to discover the relations among the writing ability using English, the level of critical thinking, and the linguistic intelligence; are they positively or negatively related. In addition, it is also intended to predict the score of dependent variable if the score of independent variable undergoes decreasing or increasing. The data used in this research were scaled as interval or ratio.

The data was collected through questionnaire and test provided. The data was then illustrated in tables and graphs. The analyzed data exhibits the result is shown in Table 1:

Table 1. Validity Test Results for *Critical Thinking* Variable

Item	Score	Information
1	0.392	Valid
2	0.392	Valid

Information : r-table with N = 136 and the significance level of 95% is 0.1416

From the test results illustrated in table 1 and 2, all items are said to be valid. Validity and reliability tests are not performed on the writing skills since it serves as fixed measure and is used globally to assess one's English ability.

#### *Reliability Test*

The result of reliability test is illustrated in the table 2:

Table 2. The Result of Variable Reliability Test

No	Variable	Alpha Cronbach Score
1	Multiple Intelligence	0.860
2	Critical Thinking	0.563

The table above illustrates that the score of  $\alpha = 0.903 > 0.5$  so that it shows that the question items are reliable.

#### *The Analysis of Multiple Linear Regressions*

The steps taken in this analysis were; first, interpreting the determinant coefficient, second, testing the F statistic, and third, testing the partial regression using T testing. The output of SPSS for interpreting the determinant coefficient is shown in the table 3:

Table 3. The Result of Multiple Linear Regressions

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.602 <sup>a</sup>	.362	.352	.92461	
a. Predictors: (Constant), MTRTY, LING_INT					

The table shows that *adjusted R<sup>2</sup>* = 0.362, it indicates that 36.2% of writing skill variation can be explained from two variables of *linguistic intelligence* and *critical thinking*, whereas the rest of 63.8% can be explained by others causes outside the model.

Table 4. The Result of F Statistic Testing

ANOVA <sup>b</sup>					
Model		Sum of Squares	Df	Mean Square	F
1	Regression	64.765	2	32.382	37.731
	Residual	114.145	133	.858	
	Total	178.910	135		
a. Predictors: (Constant), MTRTY, LING_INT					
b. Dependent Variable: WRT_SKLL					

Based on the Anova table on the F test, the score of F is 37.731 with 0 probabilities. Since the probability is smaller than 0.05, it can be concluded that the coefficient of regression of the independent variable was not equal to zero or that both independent variables simultaneously affected the dependent variable (*writing skills*). It also means that the score of the determinant coefficient *R<sup>2</sup>* is not equal to zero, or significant. The output of SPSS display for the significance testing of individual parameters is shown in table 5:

Table 5. The Result of Significance Test of Individual Parameter

Model	Coefficients <sup>a</sup>			Standardized Coefficients		
	B	Unstandardized Coefficients	Std. Error	Beta	T	Sig.
1	(Constant)	1.886	.365		5.172	.000
	LING_INT	.766	.095	.562	8.042	.000
	MTRTY	.271	.126	.151	2.156	.033
a. Dependent Variable: WRT_SKLL						

To interpret the coefficient of the independent variable parameter, *unstandardized coefficients* were used. Of the four independent variables included in the model, all variable are significant at  $\alpha = 5\%$ ; it can be seen from the variable probability, which is under 0.05. Eventually, it can be concluded that *writing skills* is affected by the *linguistic intelligence* and *critical thinking*; with the following mathematical equation:

$$Y = 1.886 + 0.766x_1 + 0.271x_2 \quad (1)$$

The above mathematical equation shows that:

1. The positive constant coefficient indicates that with the absence of the independent variable, the score of writing skill is still positive.
2. The positive regression coefficients  $x_1$  (*linguistic intelligence*) and  $x_2$  (*critical thinking*) indicate that whenever the linguistic intelligence and critical thinking undergo increases, the score of writing skill tends to improve.

### 3.2 Results and Discussion

Based on the data analysis, there are relations among the level of critical thinking, linguistic intelligence, and the writing ability of the employees of the Indonesia's biggest state owned company. From the correlation coefficient of 0.362, it shows that among the critical thinking levels, linguistic intelligence, and writing ability using English, the correlation is

quite significant. This means that the relation among the critical thinking level, linguistic intelligence, and writing ability are positively related. This also means that if the employee's critical thinking ability and linguistic intelligence are high, the writing ability tends to improve. On the contrary, if the employee's critical thinking ability and linguistic intelligence are low, the writing skills tend to come down.

The discussions of the research results for each variable are described as follows: One's ability to write in his or her mother's or foreign language can be used as a benchmark for assessing his or her language competence. One who can write properly and correctly shall have a better language competence. It can be seen from the fact that one must firstly master the three skills; listening, speaking, and reading before mastering writing skills. In other words, writing skills can be said as the most complex skill.

The data of English writing of PT. Telkom employees are the primary data collected from the writing test of IELTS; one of many requirements to participate in Global Talent program. The IELTS (*International English Language Testing System*) is a globally acknowledged test intended to test one's ability in using English. The test comprises four language skills; listening, reading, speaking, and writing. The writing test takes 60 minutes. The participant works on 2 given tasks. In order to get through this test, English is used for various purposes to show one's ability in adjusting the writing style for the different topics and context. Sentence structure, vocabulary, grammar use, and style shall be scored. After completing the series test, the participants shall be scored and be given the following "*band score*".

The writing test in IELTS for the employees is turned into Y variable and the average score of 4.5 is gained with the lowest score of 4 and the highest score of 8.

Table 6. The Category and Percentage of the Writing Ability of the Employees of PT. Telkom in IELTS

No.	Number of Respondents	Category	Score	Percentage
1	0	Real users	9	0%
2	4	Very good users	8	3.45%
3	33	Good users	7	24.05 %
4	30	Competent users	6,5	45 %
5	32		6	
6	12	Simple users	5,5	17.28%
7	2		5	
8	13	Limited users	4,5	10.22%
9	12		4	
7	0	Very Limited users	3,5	0%
8	0		3	
9	0	Intermittent users	2	0%
Total	137	User with no language skills	1	0%
				100%

Based on the analysis of the research data provided in the table, it can be acknowledged that most of the employees of PT. Telkom participating in the selection for Global Talent Program have good writing ability in English. It is indicated by the findings that 3.45% of the employees are the *very good* users of English, 24.05% are the *good* users, 45% are the *competent* users, 17.28% are the *simple* users, and 10.22% are the *Limited* users.

Based on the explanation, the writer assumes that linguistic intelligence relates closely with the English learning, and one of them involves writing skill. According to Gardner [16], writing activity is an activity mastered by those who have linguistic intelligence. The characteristics of linguistic intelligence comprise; the passion of writing creatively at house, composing fictitious story, telling jokes and fairytale, having strong mind in memorizing names, dates, or small things, enjoying reading books in the spare times, spelling out words fast and easily, enjoying funny rhymes and word games, enjoying crossword puzzle or playing games such as scrabble or anagram, enjoying to listening spoken words (story, radio program, reading books, etc.), having extensive vocabularies for particular age group, and having excellences at school lessons involving the activities of reading or writing. Furthermore, Amstrong mentioned that one with higher linguistic intelligence may think through words, love the activities of reading, writing, telling story, and playing word games.

From the results, it can be summarized that the level of linguistic intelligence of the employees of PT. Telkom participating in the Global Talent Program is divided into three groups; high, middle, and low. The percentages of each category are 42.21 for those with high linguistic intelligence, 47.11% for the middle, and 11.68% for the low.

The employees with low linguistic intelligence may have a higher level of other multiple intelligences. The employees with high linguistic intelligence may have higher levels of other multiple intelligences. The theory of multiple intelligences is a promising and important improvement. This theory sees that one's intelligence is complex and varied. In other words, every individual may have more than one kind of intelligences. Howard Gardner states that

there are eight kinds of intelligence that may be owned by every individual; they are verbal-linguistic; logic-mathematic; visual-spatial; kinesthetic; musical; interpersonal; and naturalist.

Thinking critically is a process of making use of the ability to think effectively that it may assist one to make, evaluate, and decide on what to believe and what to do. On the contrary, thinking creatively is a process of thinking to express new relations, to see things from new perspective and to form new combination from two or more concepts that have been mastered previously. From definitions above, it is clear that the ability to think critically and creatively is mostly required to overcome particular problems.

Based on the primary data, the tendency to think critically that is scored based on CCTDI score, the respondents are classified into *strong, positive, ambivalent, and negative* for the total score and the forming characteristic score for the tendency of thinking critically (*truth-seeking, open-mindedness, analyticity, systematic arrangement, confidence, inquisitiveness, maturity of judgment*). No respondents with the total score of having tendency to think critically are included in the negative category.

Based on the data calculation, the employee's tendency to think critically is assessed from seven characteristics: the *strong* category, the highest score was obtained on the *maturity of judgment* characteristic; the positive category, the highest was obtained on the characteristics of *systematically, inquisitiveness, analytically*; followed by *open-mindedness*, and *confidence in reasoning*. The ambivalent category, the highest was obtained on the *truth-seeking* characteristic. As stated earlier, no negative category was discovered for the employees' level of critical thinking. Based on the research result, it can be said that *maturity of judgment* is the most influential characteristic on the employees' ability to write in English. The characteristics of *systematically, inquisitiveness, analytically, open-mindedness*, and *confidence in reasoning* show influences, yet they are not significant. The *truth-seeking* characteristic, though influential, has a significant value.

#### 4. Conclusion

Based on the data analysis of this research, it can be summarized that most of PT. Telkom employees, participating in the selection for Global Talent Program and becoming the respondents in this research, have good English writing skills. It can be indicated from the findings that 3.45% of the employees are included in the *very good* users of English, 24.05% are in the *good* users, 45% are included in the *competent* users, 17.28% are in the *simple* users, and 10.22% are in the *limited* users.

The tendency of PT. Telkom employees to think critically, participating in the selection for Global Talent Program and becoming the respondents in this research, is scored based on CCTDI score. In addition, it is also classified into the categories of *strong, positive, ambivalent, and negative* for the total score and the forming characteristic score of critical thinking (*truth-seeking, open-mindedness, analyticity, systematic arrangement, confidence, inquisitiveness, maturity of judgment*). From the score, it can be summarized that 14.02 % respondents are included in the strong category for their thinking level, 73.26% having the tendency to think critically are included in the positive category, and the other 12.72% are included in the ambivalent category. No respondents with the total score of having tendency to think critically are included in the negative category.

The linguistic intelligence of PT. Telkom employees, participating in the selection for Global Talent Program and becoming the respondents in this research, is divided into three groups; high, middle, and low.

There are correlations in the writing skills of PT. Telkom employees with their linguistic intelligence and their critical thinking. From the statistical data analysis using the *Analysis of Multiple Linear Regressions*, the score of *adjusted R<sup>2</sup>* is obtained. It indicates that 36.2% of the *writing skill* variations can be explained by the variations of the two variables of *linguistic intelligence* and *critical thinking*, whereas the rest of 63.8% can be explained by other causes not included in the model. The regression coefficient of x<sub>1</sub> (*linguistic intelligence*) and x<sub>2</sub> (*critical thinking*) are scored positive; thus, if the *linguistic intelligence* and *critical thinking* increase, the score for the *writing skill* tends to rise.

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## The ISCLO Conference 2014

# Influence Analysis of Return on Assets (ROA), Return on Equity (ROE) and Earnings Per Share (EPS) Stock Return Against Telecom Operator Company Listing In Indonesia Stock Exchange (IDX) Period 2008-2012

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### Abstract

In 2010 there were about ten known cellular operators in Indonesia, which put Indonesia as the country with the highest number of mobile operators in the world. Therefore, the objective of this studies was to find out how big the influence of ROA, ROE and EPS on stock return of telecommunication operator's company that was listed in IDX during the period of 2008-2012, partial and simultaneous.

The research method used was descriptive verification method by collecting secondary data from five annual reports of telecommunication operator's company. The sampling method used in this study was<sup>1</sup> a non-probability sampling with purposive sampling technique determination. The method of data analysis used in this study was a panel data regression, using random effect models. Hypothesis testing was performed using t-test (partial), F test (simultaneous) and the coefficient of determination using Eviews 6 as a data processing program.

Based on the results, it can be found that in the partial test only ROA has a significant effect, while ROE and EPS do not have a significant effect on the company's stock return. In the simultaneous test ROA, ROE and EPS do not have a significant effect on the company's stock return. Based on the coefficient of determination, the Adjusted-R square is 13, 60% which means ROA, ROE and EPS gave an influence of 13, 60%, while the rest 86, 40% was influenced by other variables outside of the model of this research.

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**Keywords:** *Return on Asset, Return on Equity, Earning Per Share, Stock Return.*

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### 1. Introduction

Expectations of investors or funders of the embedded investment in companies is an acceptable level of return (refund), the highest possible with a certain level of risk. Investors can view the performance of the company's stock price levels that have been recorded in the Indonesia Stock Exchange (IDX). To measure the performance of a company, one of the calculations can be done by using the ratio of profitability.

Profitability ratios used in this study is the return on assets (ROA), Return on Equity (ROE) and Earnings per Share (EPS), and the stock return is used as one measure of the rate of return obtained by investors, as it relates to stock prices and dividends that would be received [1]. In 2010 there were about ten known cellular operators in Indonesia. From the large

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number of the mobile operators to date in Indonesia, Indonesia is a country with the highest number of telecom operators in the world.

As a result of intense competition among the telecommunication operator companies, the acquisition of net profit for each company each year can be seen. The following is a table of data, the development of net profit gained by five firms of telecom operator listed on the Indonesia Stock Exchange (IDX) of Indonesia during the period of 2008 to 2012.

**Table 1 Development of Telecommunications Operator Company Net Income  
Period 2008-2012 (Billion Rupiah) [2]**

COMPANY NAME	2008	2009	2010	2011	2012
<b>PT. Bakrie Telecom Tbk</b>	136,8	98,4	10	-782,7	-3.138
<b>PT. Indosat Tbk</b>	1.878	1.498	647,2	835	375,1
<b>PT. Smartfren Telecom Tbk</b>	-1.008	-724.396	-1.401	-2.400	-1.563
<b>PT. Telekomunikasi Indonesia Tbk</b>	10.619	11.332	11.537	15.537	10.965
<b>PT. XL Axiata Tbk</b>	-15	1.709	2.891	2.830	2.744
<b>The Average Score</b>	<b>2,332.1</b>	<b>2,782.6</b>	<b>2,736.8</b>	<b>3,214.6</b>	<b>1,876.6</b>

One of the things that causes the company to earn a net profit decline was the development of a type of telecommunication network services provided by each company. Not all companies provide the same network. Some results of studies examining the influence of the Debt to Equity Ratio (DER) on stock returns showed different results from each other such as Natarsyah research results [3], while the results of the study by Santoso [4], Liestyowati [5] showed the ratio of Debt to Equity Ratio (DER) and no significant negative effect on stock returns.

The object of this research used only telecommunication operators that are consistently listed on the Stock Exchange during the period of 2008-2012, and then five sample companies were selected:

- a) PT. Bakrie Telecom Tbk
- b) PT. Indosat Tbk
- c) PT. Smartfren Telecom Tbk
- d) PT. Telekomunikasi Indonesia Tbk
- e) PT. XL Axiata Tbk

Telecommunication market in Indonesia is still great and still has plenty of room to grow to become even greater. Similarly, investors who will invest in telecommunication companies will find it more difficult to determine which telecommunication operator to invest their capital on. Prediction of Ability of Financial Ratios on Share Price [6] as a capital market activity is concerned with the public offering and trading of securities, public companies relating to the issuance of securities, as well as institutions and professions related to the effect. Capital market is the party that organizes and provides a system and means to bring or buy and sell offers Securities to other parties with the purpose of trade effects between them [7].

The movement of the stock exchange is determined according to the law of supply and demand, or bargaining power. More and more people are buying the stock, and then the price of the stock will increase. When there are more and more people who want to sell the stock, the price of the stock will go down [8-9]. Shares are intangible pieces of paper which explained that the paper's owner is the owner of the company that issued the securities.

The first problem is the phenomenon of the gap; as the variable Earnings per Share (EPS) of the company is high, more investors are willing to buy the stock, causing the stock price to be high [9]. Yet, in fact there are several companies whose EPS decline but the prices of their shares rise. A larger ROE means the optimal use of equity capital of a company to generate profits and increase profits, meaning the occurrence of progressive growth. Empirically, the greater the profit, the greater the investor's interest in investing the funds to own the stock.

Return is the rate of profit of capital investment from the results that one obtained. The purpose of the investor to invest is to maximize the return on investment without forgetting the risk factors encountered [8-9-10]. Return used in this study is the realization of the return or the occurring return (realized return), the return that an investor has acquired in the past (the actual return) and is calculated based on historical data. Return is important because it is used as one measurement

of the performance of the company.

Financial ratios are used to compare the risks and the "return" of different companies in addition to assisngt investors and creditors in making investment decisions and credits. There are five types of financial ratios, namely [10]:

- a) Leverage ratio, which shows how to use the company's debt.
- b) Liquidity ratio, which measures the company's ability to meet obligations maturity.
- c) Efficiency ratio, which measures how effectively the company manages its activities.
- d) Profitability ratio, which measures the company's ability to generate profits.
- e) Market-Value ratio, which shows how the company was rated by investors in the capital market.

Profitability ratios can provide information on the financial performance of the company. This ratio measures the overall effectiveness of management addressed by large or small levels of profit earned in relation to sales and investment. The better profitability ratio means the better the ability of the high gain company [8-10].

**a) *Return On Asset (ROA)***

This ratio measures the company's ability to generate net income under a certain asset level [8]. The profitability of a company can be measured by connecting income or profits derived from activities of the company with a wealth of goods or assets used to generate the profits. The larger the value of ROA, the better the performance of the company, because the rate of return (return) increases. In other words, increasing ROA will increase stock returns [6-8].

**b) *Return On Equity (ROE)***

Also known as ROE return on equity. This ratio measures the company's ability to generate earnings based on share capital [6-8]. The analysis of ROE for investors is very important, because through the analysis the advantages to be obtained can be identified. For investors, higher ROE will show smaller investment risk, and vice versa lower ROE shows higher investment risk.

**c) *Earnings Per Share (EPS)***

EPS, or earnings per share is a measurement of the ability of the company in generating profits per share for its owner [4-6-8-9]. The value of EPS demonstrates the ability of the companies in the high-paying larger dividends to investors.

## 2. Methodology

The method used is descriptive verification [6-8-13]. Verification method is a research that aims to understand the relationship between two or more variables [5-7]. This study uses secondary data from annual reports of telecommunications operator listed in BEI for the 2008-2012 period. The data used in this study is panel data, which is the combination of cross section and time series data. Cross section data are data collected simultaneously in the same period, while the time series data is data that is collected by a series of time [8-9]. The population in this study is to telecommunication carriers throughout the company listings on IDX period 2008-2012.

### 2.1. Data Panel Regression

It is a regression using panel data. The advantage of panel data is the incorporation of time series and cross section data which are able to provide more data so as to produce a bigger degree of freedom and that can overcome the problems that arise when there is a removal of variables (omitted variable) [6-8] The shape of the structure of the regression model panel data can be seen in the following 3 formula:

$$Y = \alpha + \beta_1 X_1 it + \beta_2 X_2 it + \dots + \beta_n X_n it + e \quad [6-8]$$

Three methods were used to estimate panel data regression models, among others [6-8] are:

**a) *Common Effect***

$$Y_{it} = \alpha_0 + \beta_1 X_{1, it} + e_{it} \quad [6-8]$$

**b) *Fixed Effect***

$$Y_{it} = \alpha_0 + \beta_1 X_{it} + \beta_2 d_{1,1} + \beta_3 d_{2,1} + \beta_4 d_{3,1} + e_{it} \quad [6-8]$$

**c) *Random Effect***

$$Y_{it} = \beta_0 + \beta_1 X_{it} + v_{it} \quad [6-8]$$

Estimation of panel data models can be selected at the top of the most appropriate for estimating panel data regression. Once it can be tested to determine which model is appropriate for use in this study. Two tests were used, among others, the Chow test that is used to select between the methods common effect and fixed effect. Second, the Hausman test that is used to choose between fixed effect and random effect that best estimate panel data regression. Two trials were used in the analysis of panel data; chow test and Hausman test [6-8].

## 2.2. Hypothesis Testing

Partial Significance test (t test) is used to show far the influence of the independent variables in explaining the variation individually while the dependent variable uses Simultaneous Significant Test (Test F), indicating whether all independent variables included in the model have jointly influence the dependent variable [6-9].

## 2.3. Coefficient of Determination

Analysis of the coefficient of determination is used to see how much the independent variable (X) affects the dependent variable (Y), expressed as a percentage [13]. After two previous tests of the likelihood ratio test (yielding a common effect model) and the Hausman test (generating random effect model), and then elected as a random effect model of the exact model used in the regression equation panel data in this study. Based on the random effect model, the value of panel data regression equation can be seen as follows:

$$\text{Return Stock} = 0.405561 + 0.46078 \text{ ROA} - 0.000728 \text{ ROE} - 0.001313 \text{ EPS} + v_{it}$$

- a) The value of the intercept coefficient is equal to 0.405561, which means that if the variable ROA, ROE and EPS increase, the level of the stock returns telecommunication operator listed on the Stock Exchange for the period of 2008-2012 will increase by 40.5561%.
- b) Coefficient Return on Assets (ROA)/(X<sub>1</sub>) is equal to 0.46078 and has a positive influence. This suggests that any increase in ROA of one percent (assuming other variables constant) will result in company stock return telecom operators to increase by 46.078%.
- c) Coefficient Return on Equity (ROE)/(X<sub>2</sub>) is equal to -0.000728 and has a negative influence. This shows that every one percent increase in ROE (assuming other variables constant) will result in stock returns of telecommunication operator to decrease by 0.0728%.
- d) Coefficient Earning per Share (EPS)/(X<sub>3</sub>) is equal to -0.001313 and has a negative influence. This suggests that any increase of EPS by one percent (assuming other variables constant) will result in stock returns of the telecommunication operator to decrease by 0.1313%.

## 3. Results and discussion

### 3.1. Effect of ROA as One Independent Variable Stock Return Against Company

Based on the results of the t test (partial) and the coefficient, ROA has a significant effect on the real level of five percent and also has a positive relationship to the stock return with the rate of influence of 46.078%.

ROA is a ratio that shows the relationship between income or profits derived from the principal activities of the company and the assets used to generate profits. The greater the value of the company resulting ROA, the better; it will make the rate of return (return) increase. The higher the ratio, the better the state of the company. It certainly can make the attractiveness of the company to increase in the eyes of investors.

### 3.2. Effect of ROE as One Independent Variable Stock Return Against Company

Based on the results of the t test (partial) and the coefficient, ROE has no significant effect on the real level of five per cent on stock returns and the magnitude of the effect of -0.0728%.

This means that with a high ROE rate the company has the opportunity to produce high profits and would also affect the rate of return (return) to be obtained by the shareholders of the telecommunication operator companies. ROE shows how the company uses its resources to generate profits on equity (capital).

### 3.3. Effect of EPS as One Independent Variable Stock Return Against Company

Based on the results of the t test (partial) and the coefficient, variable EPS has no significant effect on the real level of the five per cent on stock returns; the magnitude of the effect is -0.1313%.

Increasing the value of EPS will allow it to be followed also by the increase in the company's stock price. This happens because the movement of the stock price is affected by income per share, and earnings per share of income are affected by the company itself. By knowing the EPS for each company, the investors will obtain information relating to a company's stock price so that it can be taken into consideration in choosing a company that will be a place to invest.

### 3.4. Effect of ROA, ROE and EPS Against Company Stock Return

Based on the results of the F test (simultaneous), simultaneously or jointly, independent variables ROA, ROE and EPS show no significant effect on stock returns, i.e. the value of Prob (F-statistic) of 0.111266 is greater than the value of the degree of freedom which is 0, 05. This suggests that the three of them did not affect the ratio of the level of stock return of the telecommunication operator listed on the Stock Exchange during the period of 2008-2012. In the financial statement fluctuations in each year can be seen; when it is performed and done will, it will increase the market price of the stock and is influenced by internal and external factors, such as government regulation and tariff determination and political influence during this period. The magnitude of the effect of the three independent variables (ROA, ROE, EPS) on stock returns is 13.5968%.

When the values of return on assets, return on equity, and earnings per share can affect the high level of stock return, opportunities are also expected to be high. However, the results of the data processing, show that the values of ROA, ROE and EPS were even higher and gave no significant effect on the value of the company stock returns. This can occur because the magnitude of the effect of the two variables (ROE, EPS) based on the results of the data processing shows a minus value of (-0.0728% and -0.1313%). The minus value contained in the two independent variables appeared to have an influence contrary to existing theories. Thus, the two variables do not provide a significant impact on the stock returns.

## 4. Conclusion and Recommendations

### a) Conclusion

- 1) Partially (t test), only ROA has a significant effect on stock returns of the telecommunication operators listed on the Stock Exchange during the period of 2008-2012. This is indicated by the value of  $2.584850 > t\text{-table } 2.080$ , in accordance with the provisions of the decision making of  $H_0$  rejected. The other two independent variables, namely ROE and EPS, have no significant effect on stock returns of the telecommunication operators listed on the Stock Exchange during the period of 2008-2012. On the other hand, the magnitude of the effect of ROA on stock returns is 46.078%.
- 2) Simultaneously (F test) or together, these three independent variables, namely ROA, ROE and EPS do not have a significant effect on the stock returns of the telecommunication operators listed on the Stock Exchange during the period of 2008-2012. It is shown from the calculated F value which is  $2.258912 < F\text{-table } 3.07$ , in accordance with the provisions of the decision making of  $H_0$  accepted. The magnitude of the influence of these three free variables (ROA, ROE, EPS) on stock returns is 13.5968%.

### b) Recommendations

Based on the conclusions that the authors have pointed out earlier, the suggestion that the author can give is:

- 1) Theoretical Suggestion  
Further research is expected to expand the scope of the research, especially adding or using variable ratios such as liquidity ratios, solvency and activity. Thus, to obtain a clearer and more concrete picture of the ratios, which can affect stock returns based on the characteristics of each telecommunication operator?
- 2) Practical Advice
  - For investors who have invested in companies in the Indonesian telecom operators listed on the Stock Exchange, the monitoring over the development of these three variables (ROA, ROE, EPS) covered in this research should be continued; these three variables are ones that can describe the performance of corporate finance in general. The entire telecommunication operators which are the object of this study have a great opportunity to continue to grow in the future. Exception applies only to the company that does not have a sustainable way to innovate in terms of quality of service. That is because this telecommunication industry

will continue to grow in the future, and will never stop. Investors can determine the right time to make a decision to buy, sell or hold shares that they currently have. But investors are also advised not to focus only on ROA and EPS alone the two variables based on the research results do not leave a good influence on stock returns of the telecommunication operator.

- For potential investors who will invest in the telecommunication operator, preferably in analyzing the value of the stock return/rate of return to be earned, the profitability ratios such as ROA, ROE and EPS are not the only focus to study. Other factors such as macro or micro economics, inflation and other environmental conditions outside should also be considered. Also, other research variables that can be used in analyzing stock returns should be added in order to obtain a clearer picture of the rate of return when investing in a company.

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## Learning Organizations Applications in Private Higher Education (A Case Study at STIE STAN Indonesia Mandiri Bandung)

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### Abstract

This paper reviews several theories of learning organization, including criticisms, and takes a practical application approach at STIE STAN Indonesia Mandiri.

The objective of this paper is to map the many facets of organizational learning into an integrative and parsimonious conceptual framework that can help researchers and practitioners identify, study, and introduce organizational learning to organizations, especially in higher education and to understand the compatibility between Peter Senge's Learning Organizations Theory and Anthony DiBella's Learning Organizations Theory and its implementation at STIE STAN Indonesia Mandiri Bandung. The research type is qualitative descriptive with a method of case study.

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Keywords: Learning Organizations, Private Higher Education, Peter Senge's Learning Organizations Theory, Anthony DiBella's Learning Organizations Theory.

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### 1. Introduction

The era of knowledge and technology community facing men ahead of the 21<sup>st</sup> century has brought a tendency for people to experience a life of rapid changes, which will affect the changes in the characteristics of the work environment. Organization as a form of life in the society is also changing. Organizations were initially static with a traditional management paradigm, expected to be ready to make a change towards a new management that is characterized by the presence of vision, employee training and development in order to empower employees and work teams. Now the static organization has turned into a dynamic organization. Organizations that have a dynamic attitude means that the organization is always adjusting to the changes that occur.

Organizational changes because organizations always face numerous challenges. Challenges arise as a result of environmental changes. The constantly changing environment forces individuals and organizations to follow these changes. To exist in an environment of challenge and uncertainty, organizations need to be "changed" or "adapted" to be able to stay afloat. Environmental changes are also demanding more flexible and responsive organization (responsiveness) to the changing environment. Organizational flexibility requires an inside teamwork. The changing environmental conditions spawned competitions in it, and this competition emerges in order to select organizations that can follow the flow of the change.

Static organizations could not adapt themselves to a changing environment and did not win the competition in the environment and would eventually cause the organization to die. The advantages of an organization in the face of intense competition are highly dependent on the individuals within the organization, those who have speed, ability, responsiveness, agility, learning ability and competence. They are employees' knowledge, skills, and abilities associated with the job (Senge, 1994). The manager of the organization has to think how to build and maintain a sustainable competitive advantage

over the competition. Rapidly changing environment requires every organization to quickly respond and adapt to changes, and the emergence of this change is not to be resisted or opposed, but to be managed.

A change in the natural environment by an organization requires the organization to make adjustments. Adjustment becomes a necessity. The ability of governmental organizations to address the challenges of the current and future becomes one of the forces that must be owned by the organization. To make it happen, organizations need a concrete concept as a means to conquer changes, one of which is the Learning Organization. Pitts (1996) argues that the competitive advantage of an organization can be built and maintained through strategies to manage changes, i.e. to build a Learning Organization.

Peter Senge defines a learning organization as an organization where people expand its capacity. People are nurtured and developed so that they are free to contribute to the company's aspirations. In a learning organization, the learning process is highly dependent on the individuals who are in the organization, because they are the perpetrators of the organizational learning. As Senge (1990: 7) stated "organizations only learn through individuals WHO learn". Learning does not guarantee the individuals who conducted the organizational learning, but without the individual learning organizational, learning will not occur. However, the learning organization is not only individuals who have continued to learn but the organization also must continue to learn. As with humans, the organization must continue to learn.

Organizations need to continuously learn so that they can adapt to changes. Charles Darwin said, "it is not the strongest who are able to live long, but the most adaptive," i.e. they are always adapting to various changes (Kasali, R., 2007). Alvin Toffler said "The illiterate of the 21th century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn". Stupidity in the 21st century as it is today is no longer caused by illiteracy alone, but by people who do not want to learn, do not want to waste any knowledge that they believe and do not want to relearn what they have learned previously.

Learning organization is performed by STIE STAN Indonesia Mandiri, Bandung in response to the changing environment. STIE STAN Indonesia Mandiri is a private college that has four programs, namely S1 and D3 Accounting, Tax Management D3, and S1 Management. Along the way, STIE STAN Indonesia Mandiri increasingly understand the importance of learning organization in college. Therefore, in this paper the authors want to see the application of learning organization at STIE STAN Indonesia Mandiri.

## **2. Peter Senge's Theory**

He says that "...organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together." (Senge 1990)

As mentioned earlier, he defines the core of learning organization work based on five "learning disciplines". To expand on them, in Senge's words they are:

### **Personal Mastery**

Learning to expand our personal capacity to create the results we most desire, and creating an organizational environment which encourages all its members to develop themselves toward the goals and purposes they choose.

### **Mental Models**

Reflecting upon, continually clarifying, and improving our internal pictures of the world, and seeing how they shape our actions and decisions.

### **Shared Vision**

Building a sense of commitment in a group, by developing shared images of the future we seek to create, and the principles and guiding practices by which we hope to get there.

### **Team Learning**

Transforming conversational and collective thinking skills, so that groups of people can reliably develop intelligence and ability greater than the sum of individual members' talents.

### Systems Thinking

A way of thinking about, and a language for describing and understanding, the forces and the interrelationships that shape the behavior of systems. This discipline helps us to see how to change systems more effectively, and to act more in tune with the larger processes of the natural and economic world.

(Senge, Roberts et al. 1994)

Below there is a model that can explain the relationship between environmental changes, including globalization with strategies that should be undertaken by the company in its organization and management.

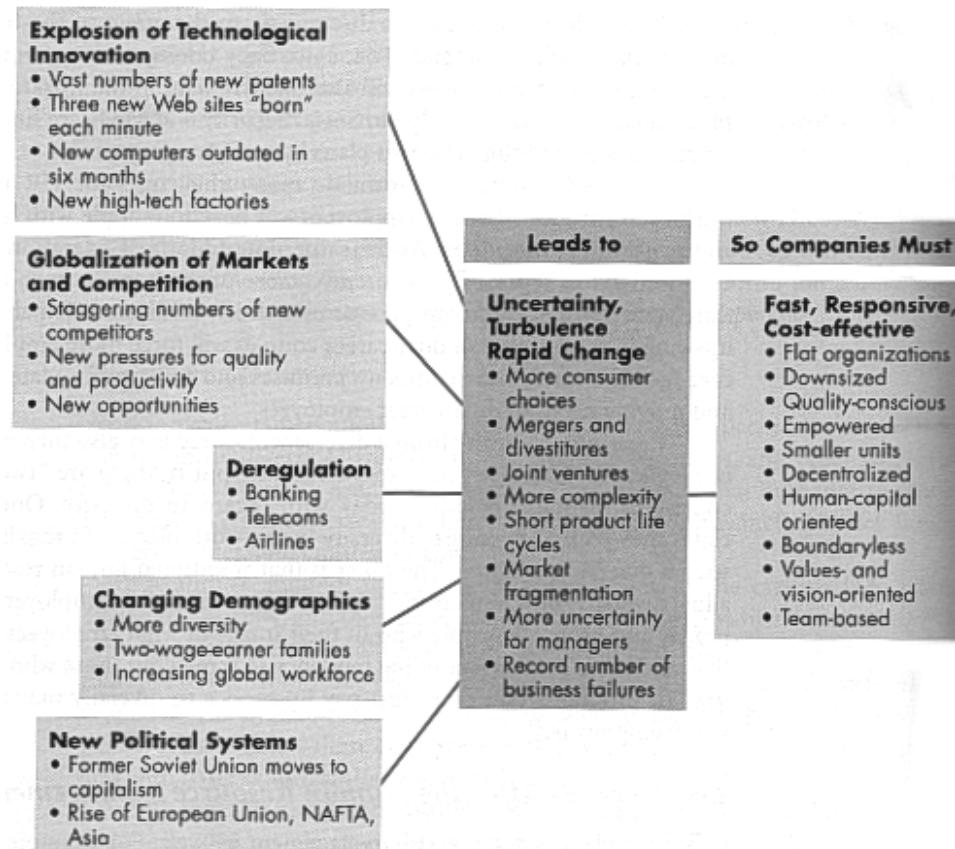


Figure 1 Relationship between Environmental Changes (Senge, 1994)

### 3. Anthony DiBella Theory

DiBella defines organizational learning as “the capacity (or processes) within an organization to maintain or improve performances based on experience. This activity involves knowledge acquisition (the development or creation of skills, insights, relationships), knowledge sharing (the dissemination to others of what has been acquired by some), and knowledge utilization (integration of the learning so that it is assimilated, broadly available, and can also be generalized to new situations.)” (DiBella, Nevis et al. 1996)

DiBella's work in *How Organizations Learn* (DiBella and Nevis 1998) overviews the Learning Organization literature of that time and classifies the writing into three categories: the normative, the developmental and the capability perspectives. In the normative perspective, the “learning organization presumes that learning as a collective activity only takes place under certain conditions or circumstances...The role of organizational leaders is to create the conditions essential for learning to take place” (DiBella 1995) Senge’s model fits this category. In the developmental perspective, the learning organization is a stage in the development of a maturing organization or in parallel, the development phase of the organization determines its learning styles and characters. The third perspective, capability, identifies that organizations develop and learn as they mature or by strategic choices, and that “all organizations have embedded learning processes.”

Rather than ascribing to perspectives one or two, DiBella and his colleagues believe that all organizations have learning capabilities. These seven areas are labeled “learning orientations” and each runs on a continuum of opposites. For example, the knowledge source may be internal or external. These seven orientations and their descriptors are:

#### Seven Learning Orientations

Orientation	Spectrum	Description
<b>KNOWLEDGE SOURCE</b>	Internal/External	Where does the organization get information from? Primarily from the inside or outside world?
<b>CONTENT-PROCESS FOCUS</b>	Content/Process	Which is more important: the content of the information, or the process of doing it?
<b>KNOWLEDGE RESERVE</b>	Personal/Public	Where is information stored? Is it accessible to all, or in the heads of individuals?
<b>DISSEMINATION MODE</b>	Formal/Informal	How is information given out in the organization? Through informal conversations, or in official meetings or written communication?
<b>LEARNING SCOPE</b>	Incremental/Transformative	When learning occurs, are the changes little by little or dramatic ones?
<b>VALUE-CHAIN FOCUS</b>	Design-Make/Market-Deliver	Is the focus more on how something is created and made, or promoted to the customer?
<b>LEARNING FOCUS</b>	Individual/Group	Is intentional learning geared toward individuals, or groups?

**Figure 2, Adapted from Marrapodi, 2003**

These orientations are facilitated by ten factors called Facilitating Factors. These factors enhance certain orientations, and increase the likelihood of the organization functioning as a learning organization. (Adapted from Marrapodi, 2003.)

#### Facilitating Factors

Facilitating Factor	Description
<b>SCANNING IMPERATIVE</b>	Gathering of information on best practices and conditions outside of the organization
<b>PERFORMANCE GAP</b>	Shared perception in the organization between the current and desired performance
<b>CONCERN FOR MEASUREMENT</b>	Desire to measure key factors and discussion about the statistics
<b>ORGANIZATIONAL CURIOSITY</b>	Interest in creative ideas and technology, with support for experimentation
<b>CLIMATE OF OPENNESS</b>	Sharing of lessons learned, open communication about all areas at all levels
<b>CONTINUOUS EDUCATION</b>	Commitment to quality resources for learning
<b>OPERATIONAL VARIETY</b>	Valuing different methods; appreciation of diversity
<b>MULTIPLE ADVOCATES</b>	New ideas can be advanced by anyone in the organization; multiple champions for learning exist throughout
<b>INVOLVED LEADERSHIP</b>	Management is personally involved in the learning and perpetuation of the learning organization
<b>SYSTEMS PERSPECTIVE</b>	Recognition of interdependence among organizational units and groups; awareness of the time delay between actions and their outcomes

**Figure 3, adapted from Marrapodi (2003)**

In the analysis process utilizing DiBella’s methods, the organization determines its current status and desired status using the learning orientations and facilitating factors. There is an interrelationship between the ten facilitating factors and the seven orientations, and focusing on specific factors can help an organization become a better learning organization. (Marrapodi, 2003)

#### 4. Methodology

The sample in this study is the faculty and staff of STIE STAN Indonesia Mandiri amounting to 50 people. They were given a questionnaire containing questions regarding the implementation of the Learning Organization at STIE STAN

that was based on the theory of Peter Senge and Anthony DiBella. The questionnaire is open-ended. Processing data using qualitative analysis is deemed appropriate in this research, according to research conducted in the Jean Marrapodi in 2003.

## **5. Learning Organizations Applications at STIE STAN Indonesia Mandiri Bandung using Peter Senge's Theory and Anthony DiBella Applications Tools**

I choose to experiment with two of the assessment tools for learning organizations found in the literature. The first, theory from Peter Senge (1994) was used in five settings. The second tool was from Anthony DiBella (2001) who used two measurements. Each of these experiences will be discussed

### **5.1. Using Peter Senge's Theory**

Just like humans who need to keep learning, colleges such as STAN Indonesia Mandiri also has a few reasons why you want to go ahead and need to learn, among other things:

#### **1. Synergy among Members**

In carrying out its activities, the company is required to have a synergy between the parts to one another, in order to achieve organizational goals. How it works at STIE STAN Indonesia Mandiri is to communicate and coordinate between divisions. Each section at STIE STAN Indonesia Mandiri has its own functions and responsibilities. In order for the parts to be able to achieve organizational goals, the system maintains communications and collaborations between divisions. For example, at STIE STAN Indonesia Mandiri, the academic staff and students should have a good synergy in order to produce quality output and to certainly benefit the organization.

#### **2. Intense Business Competition**

Competition in today's business activity becomes more intense, and organizations are required to conduct a learning organization and make changes according to environmental conditions. STIE STAN Indonesia Mandiri is an organization engaged in a very dynamic education. The presence of competitors leads to competition, hence STIE STAN Indonesia Mandiri is a learning organization.

#### **3. Bright Talents**

STIE STAN IM has many employees that are capable of more (bright) talents with so much knowledge to be shared with others. Knowledge possessed by many existing bright talents will be much more useful if distributed to others within the organization, and therefore the knowledge is also a knowledge of the organization, not just a single individual knowledge.

#### **4. Rapid Changes**

Due to the rapid changes that occur, STIE STAN IM always makes changes and is sensitive to changes in the business environment.

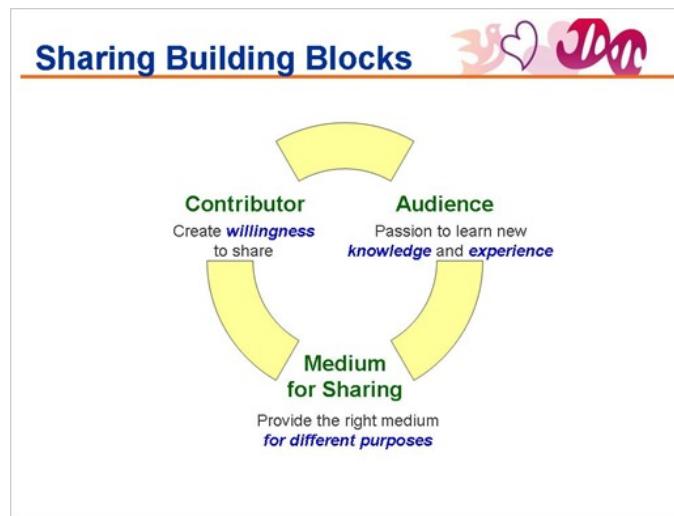
#### **5. Anticipate Future & Uncertainty**

STIE STAN Indonesia Mandiri learns and anticipates future changes and uncertainty. If STIE STAN IM does not provide the learning organization, it does not have a provision to face the future state as it cannot be predicted. By doing so STIE STAN IM learning organization can determine how it should act against the conditions that occur in the future.

### **5.2 Application of Learning Organization in STIE STAN Indonesia Mandiri**

1. In carrying out its learning organization, STIE STAN IM establishes three main pillars, namely:
2. Contributors: any person who is identified at once to be willing to give knowledge to others. At STIE STAN IM, the Chairman and the lecturers act as contributors.
3. Audiences: without the audience certainly no one will be the listener in a learning process. In this case the audience is the entire employees in the organization. The role of the organization is to create enthusiasm, desire, and encouragement for them to actively continue to want to learn new knowledge and experience. Media sharing: contributors and media to meet audience needs. The role of institutions is as the facilitators in providing the right medium for the ongoing learning.

Figure 4 Three Pillars of the learning organizations STIE STAN IM



Source: <http://www.muhammadnoer.com>

### Learning Program of STIE STAN Indonesia Mandiri in a Learning Organization

The learning programs established at STIE STAN Indonesia Mandiri for supporting the learning organization are:

#### 1. Knowledge Sharing

- Knowledge Club

It is a talk show where practitioners, reviewers, or senior managers share a lot of things, ranging from a special expertise, technical and non-technical knowledge, personal experience and various other things to be a learning for all employees who listen.

- Retrospect

It is a process of doing a flashback or retrospection for what has been done in the past. The topics primarily covered programs and institutions that happened to fail. If successful, it will be a record for the future generations to even greater success in the future. Meanwhile, everyone who failed to learn the lessons can therefore learn from the failures to avoid it in the future. Retrospect was done through talk shows and then the results were summarized in a document-style learning with a discussion of business articles as a valuable document for the next generation in the institution.

- Enterprise Award

It is an activity such as race, where employees are challenged to create a small team, which should provide inputs or new projects for the institution, and the project provides benefits for the institutions, both financial and non-financial.

#### 2. Informal Sharing

- SOLAR (Share of Learning and Results)

That program is so designed that anyone can provide sharing of knowledge and experiences, especially related jobs or support person to work better. In addition to utilizing internal contributors of institutions, guest speakers are also occasionally invited.

- GLAD (Learning and Development Group)

It is the process of sharing of lecturers who have higher positions to junior lecturers about the world of work, personal experiences, as well as tips in meeting challenges in work and personal life.

- Book Club

It is a program designed to get employees who are fond of reading to share with other employees the lessons and knowledge gained from books he had read.

#### 3. Online Sharing

- Online Library

STIE STAN Indonesia Mandiri has a library with a considerable collection of books and that can easily be lent to the entire academic community of STIE STAN Indonesia Mandiri after filling certain forms online. In addition, there are also a lot of e-book which can be easily downloaded.

#### **4. Other Sources**

- Books
- Journals

The fifth discipline of learning organization found in the STIE STAN IM can be seen in programs run by STIE STAN-IM. For example, the discipline of personal skills (Personal Mastery) in which a person tends to act and continually expand his or her capabilities. Any individual's presence will contribute to the organization in accordance with the expertise that can be incorporated through linkages with other individuals within the organization; it can be seen in the program of knowledge sharing and informal sharing run by STIE STAN-IM. While in principle the mental models is an individual within the academic community, organizations are required to produce a way of thinking or mindset that is open minded. It will ease the process of decision-making through discussion and loss of optimal mental block that inhibits the organization. This principle is visible in some programs where knowledge SOLAR club or academic community engaged in sharing information in it must open their minds to absorb sciences given. The next discipline is shared vision, in which the programs are executed in a learning organization applying solely the achievement of a shared vision. Further discipline is team learning, where existing programs are shown to build a team learning club as knowledge and also the Enterprise Award which requires the presence of the team. The next discipline is thinking system, where the thinking system should be built in the organization that wishes to build a learning organization because the thinking system is about the ability to analyze and integrate the disciplines of learning organization, though it may not be able to translate it into a discipline-discipline action (activity) organization that looks wider than the programs that run.

With a series of programs the learning organization gradually began to evolve. It is originally introduced to the academic community with a variety of learning activities and then grows when the academic community use on a regular basis. Learning activities were eventually accepted and understood as a common need.

From the explanation above, the most important thing done in running a learning organization is to build a culture of learning. There are several keys to success that guide STIE STAN-IM in building a culture of learning:

- Learning should be fun and make people feel engaged (engaging)
- Provide a variety of learning media to accommodate the learning needs of a diverse academic community
- Ensure resources for learning available and easily accessible by anyone
- Communicate with interesting learning activities and "provocative"
- Leaders set the example by facilitating simultaneously engaged in learning activities
- Create learning activities as ways of working institutions
- Learning should be a requirement and the personal responsibility of each individual to develop one's self.

#### **5.3 The Organizational Learning Profile (OLP) by Anthony DiBella**

The first attempt to use the Organizational Learning Profile (OLP) was done by the author as part of a needs assessment for STIE STAN Indonesia Mandiri, Bandung. This provided familiarity with the concepts that were measured and allowed initial experience prior to using the tool with a group. The second experience was conducted with the training department and involved all of the members of the team, scoring an assessment individually, compiling the results and discussing the results and desired ideal. According to DiBella, the learning actually occurs during this discussion phase of gap analysis of where the organization perceives itself, and where it would like to be, and then develops a plan to achieve the desired levels.

The OLP tool examines seven sources of information within the organization and how it is utilized. Each dimension is given opposite points on a continuum, and the rater determines where on the spectrum each area falls within the organization. The secondary examination looks at factors that enhance learning, looking for the degree of evidence that the particular factor is functional within the organization.

**Figure 5 STIE STAN Indonesia Mandiri's Organizational Learning Profile**

**Learning Orientations**

			MOSTLY	MORE	EVEN	MORE	MOSTLY	
1	Knowledge Source	<b>Internal</b>			X			<b>External</b>
2	Content-Process Focus	<b>Content</b>		X				<b>Process</b>
3	Knowledge Reserve	<b>Personal</b>			X			<b>Public</b>
4	Dissemination mode	<b>Formal</b>	X					<b>Informal</b>
5	Learning Scope	<b>Incremental</b>				X		<b>Transformative</b>
6	Value-chain focus	<b>Design-Make</b>			X			<b>Market-Deliver</b>
7	Learning Focus	<b>Individual</b>		X				<b>Group</b>

**Facilitating Factors**

		Little evidence to support this factor		Some Evidence to support this factor			Extensive evidence to support this factor	
		1	2	3	4	5	6	7
1	Scanning Imperative			X				
2	Performance Gap			X				
3	Concern for Measurement		X					
4	Organizational Curiosity			X				
5	Climate of openness				X			
6	Continuous Education						X	
7	Operational Variety				X			
8	Multiple Advocates		X					
9	Involved leadership						X	
10	Systems Perspective				X			

In looking at the learning orientations of the STIE STAN Indonesia Mandiri program, information is heavily content-based, originating from internal and external sources. There is a balanced knowledge reserve, with the primary information being focused on the individual, with transformative results. As a higher education, it would be expected that faith would be personal and life changing. The dissemination of the information comes from learning and teaching with some degrees of personal study during the week.

As to the facilitating factors, the institution is totally unaware of the performance gap between where they are and where they could be. The lecturer and the students are two of the few who realize the need for economic education and literacy programs. The reading skills of the students and many of the lecturer is quite poor, and the needs assessment the OLP was part of clearly demonstrated that. The institutions has been highly self-sufficient. However, there is a very high level of leadership involvement and openness to new ideas within the congregation. As a higher education, we will not change our central focus on education, but we are willing to look at the ways we do things and are interested in continuing improvement. In a survey given to the congregation, members wanted to “grow in their faith” and consider themselves fairly knowledgeable about the economic education.

## 6. Conclusion, Limitations, and Future Research

Applying learning organization in an organization is not without obstacles. Many obstacles arise that may hinder the successful implementation of the learning organization. Therefore, to establish a learning organization within an organization requires a strong desire as well as the willingness of the owner to invest the profits in the form of an organizational system development, growth of individuals in the organization and by making the focus of business organization not solely profit-oriented. In addition, the most important thing in creating a learning organization is sharing. Willingness to share is the nature of the learning organization; sharing successful and unsuccessful experiences, sharing of information and knowledge, have to animate each individual within the organization. And it must also be remembered that an organization can be said to have a learning organization when the application of the knowledge gained can be transferred to all elements of the organization and when there has been a change in the organizational behavior.

The concept of learning organization is not only to respond to the changing environment that requires organizations to continue to learn, but also to bring benefit. Learning organization should be made by the organization in Indonesia because, in fact, there have been very few of both private and government organizations that have made learning organizations. When viewed from the benefits, a lot have been derived and this has been proven by what STIE STAN IM learning organization has conducted in the organization.

The limitation of this research was that it consisted of only one sample, which may made the results bias. Therefore, the results of this study cannot be generalized. Larger samples from all over Indonesia will be obviously increase the level of the reliability and generalization.

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## The Effect of Telkom's Leadership Development Program Stages to Employees' Behavior Changes

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### Abstract

Actualizing the Center of Excellence, Telkom Corporate University initiated the Leadership Development program to create great leaders and global standard human resources to improve the company performance. The main purpose of this paper is to ensure that the leadership development program stages designed and implemented by Telkom Corporate University could affect employees' performance and behavior changes. Did participants who followed a tiered program shows employee performance and behavior change better than participants who was only involved partially? In this paper the author focused on the impact measurement of employee behavior change based on Supervisor Perception. The data used in this analysis are data from graduates leadership development program consisting of the Suspim Reguler, Global Talent Program (GTP) and Suspim International between 2013 - 2014. The method of analysis used in this study is comparative data. By using a supervisor perception survey of the graduates from the leadership development programs, the author showed that the stages of the leadership development program affected employees' behavior change.

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*Keywords:* Leadership Development, Global Leader, Employee Behavior, Leadership Capability, Supervisor Perception.

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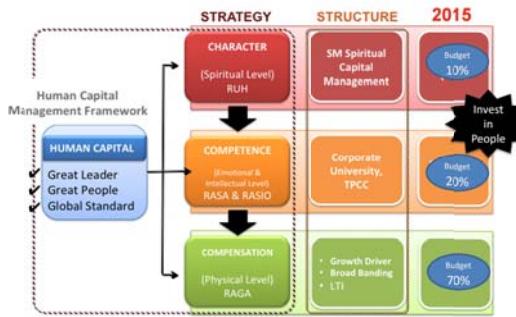
### 1. Introduction

Leadership development has now become a popular topic in research and practice. Leadership is a relationship between leaders, followers, and the context. Likewise, leadership development is contextual and the approaches and sources of learning used for leadership development provide a learning opportunity unique to that specific program [1].

In addition, demand for globalization within ASEAN Economic Community by the end of 2015 will cause goods, people, services and investments in ASEAN countries to flow freely. Observing the current condition, the combination between the needs in practice and current popular topics in research, the need for leadership development in Telkom has become important and especially for Telkom's CEO.

"The first thing that must be considered by the leader, is the last thing that will be bequeathed to the next generation and the best legacy of a leader is to create a better leader than him/herself and creating superior human resources." The statement was delivered by the CEO of Telkom Group on CEO Message 2 at the beginning of his leadership period. In line with this, the directors of Telkom Indonesia had determined 10 strategic programs for Telkom, first and foremost is the Invest in People Program. 'Invest in People' became the program of all directorates, especially in Human Capital Management (HCM). Director of HCM in running the Invest in People Program, appointed Telkom Corporate University as a Centre of Excellence for the development of the employees of Telkom Group. The main functions of Telkom Corporate University as a Centre of Excellence is to create Great Leaders, Great People with the Global Standard, as shown in the Human Capital Management Framework below.

Fig. 1 Human Capital Management Framework



The concern is how to create Great leaders, Great People with Global Standard in short period of time (2013-2015). Based on the requirements and needs of Telkom leaders who can anticipate globalization, particularly the imposition of the Asean Economic Community in 2015, since the year 2012 Telkom has prepared their employees' competence with leadership development through Global Talent Program (GTP). Conger and Riggio [2] presented a comprehensive work on the best practices of leadership behavior for developing the next generation of leaders. The authors note that one of the requirements in global leadership is the ability to lead diverse organizations across multiple levels and in the midst of great uncertainty.

Leadership development in Telkom was designed in stages. The first stage is Regular Leadership Program (*SuspimReguler*), then followed by GTP; and last came the International Leadership Program. Finally, the result of Leadership Development Program will be used for the data in the Telkom Group's Talent Management.

In practice, the stages of the program does not fit with the stages as planned, because not all of the best participants in Suspim Reguler could take GTP and not all of the best participants in GTP can take International Leadership Course; while the requirement is only for the best participants of Suspim Reguler to join GTP, and the best participants of GTP can take International Leadership Program (TICC). This situation may impact the result of the leadership development program. The purpose of this paper is to examine how staging in leadership development in Telkom, made during this time, could affect the employees' performance and behavior change. In Telkom, employee performance is measured by using Individual Working Performance (NKI), however for the new participants who finished the program in the middle of this year, the score of NKI can not be used to measure individual performance. Moreover as employees' individual performance data in Telkom are gathered from harmonizing the process of Unit Performance Value, using it as an individual performance measurement could be biased. Therefore, the impact of leadership development is examined by surveying supervisors' perception of employees' behaviors post program.

Fig. 2 Telkom Group Leadership Development Framework



In order to measure the change in employee behaviors, the author used a global leadership capability of the underlying competencies that employees should possess as a leader of Telkom Group, which is set in PR.206.05 / r.01 / HK200 / COP-J2000000 / 2014

The initial hypothesis is that participants of International Leadership Program who had followed Suspim Regular and GTP would influence employee behavior change better than those who have not followed the GTP and Suspim Regular.

$$EB = \int (SR + G + T)$$

Hypothesis :

$$EB1 (SR+G+T) > EB2(T+G-SR) > EB3(T-G+SR) > EB4 (T-G-SR) \quad (1)$$

Noted :

- EB1 (employee behavior) 1, participants of TICC who had attended GTP and passed *SuspimReguler* (SR)
- EB2 (employee behavior) 2, participants of TICC who had attended GTP but had not passed *Suspim Reguler* yet
- EB3 (employee behavior) 3, participants of TICC who had not attended GTP but had passed *Suspim Reguler*
- EB4 (employee behavior) 4, participants of TICC who had not attended either GTP or *Suspim* Reguler.

## 2. Research Objective

The purpose of this research is to ensure that the Leadership Development Program should be tiered from Suspim Regular, GTP and to Suspim International as it provides better employee behavior change.

## 3. Theoretical Background

In conducting this study, the author used the literature and references from DDI to study the impact of leadership development program. According to DDI's *Global Leadership Forecast* studies (2009, 2011), which surveyed more than 12,000 leaders in thousands of organizations worldwide, developing talent remains a top priority [3]. Organizations spend billions implementing development programs, in many cases without proof that their investments (in both time and money) are worthwhile. To obtain and retain the budgets for high-quality development programs, HR departments must be able to prove the value of their initiatives to stakeholders in the organization. DDI's *Global Leadership Forecast* (2011) found that 88 percent of organizations were more successful in delivering high-quality talent management initiatives when executives championed and proactively supported the programs, compared to only 19 percent that were successful without executive involvement. Furthermore, Bersin (2009) reported that although 8 in 10 organizations measure their employees' satisfaction with leadership development programs, less than 1 in 10 measured the impact that leadership development has on the organization. The key to gaining executive support and funding for high-quality development programs is to show the impact of the programs on the business.

Based on this DDI research, effective measurement would not only demonstrate the value of leadership development programs, but it would also identify opportunities to refine and improve the initiatives to increase results.

The other two measurement areas refer to the results the organization expects from the program. Outcome refers to changes in organizational talent (e.g., attitudes, behavior, performance), and Impact refers to changes in the business (e.g., financial results, business objectives, customer satisfaction and retention).

Research on global leadership gained more importance as global business activities flourished first with multinational corporations, and later with transnational and global organizations, joint ventures, partnerships, and strategic alliances [6]. Measurement used by DDI in evaluating Leadership Development Program includes Focus, Process, Outcomes and Impact.

FOCUS—How do we know the program is targeting the right skills?

PROCESS—How do we know the program is being implemented well, setting up leaders for success? It is important to measure the program's implementation to ensure the appropriate steps are taken to maximize results. Even the best-laid plans and programs will fail if organizational support is lacking or manager accountability is not embedded in the system.

Outcomes—How do we know the program has improved talent? Improvement in talent is the primary goal of any development program and the first indicator in determining a program's success. Talent outcomes, such as behavior changes and work group productivity improvements, are critical for demonstrating a program's impact on the business.

Impact—Has the program affected the business? If we can show improvements in talent, we might be able to draw the line between talent outcomes and business impact. Business metrics must be tied back to the development program to credibly show bottom-line impact.

Internal perception of leadership. Internal perception can be measured in two ways. First, if you're using 360 leadership assessments, you can maintain an aggregate score of a single "overall effectiveness" question, or run a report that aggregates the average score for all questions. Second, you can pull questions out of your annual employee survey pertaining to leadership and look for year over year improvement. You can also compare your leaders to other companies if you're using questions provided by a third party vendor, such as Gallop or the Leadership Practices Inventory (Great Leadership: 7 Ways to Measure the Impact of Leadership Development [7].

Global leaders, according to Mendenhall et al. (2008), are individuals who effect significant positive change in organizations by building communities through the development of trust and the arrangements of organizational structures; and processes in a context involving multiple cross-boundary stakeholders, multiple sources of external cross-country boundary authority, and multiple cultures under conditions of temporal, geographical and cultural complexity [5]. Morrison (2000) noted that for a company to become global, its leaders must develop global competencies that go beyond the familiarity of the home country. Globalization is all about overcoming national differences and embracing the best practices from around the world. Something more than a global model that can be applied throughout the world, a model that transcends and integrates national schemes and becomes an essential tool for hiring, training and retaining the leaders of

tomorrow [8].

Excellent Global Leaders demonstrate their leadership substance by acting as responsible stewards of human and natural resources who promote concurrent economic, social, biological, and ecological development [9]. This leadership substance is aligned with their responsibility to the community and environment. According to Petrick (1999), Global leadership skills and reputational capital assets are key intangible resources that executives need to leverage for sustainable competitive advantage [9].

Konyu-fogel (2011) in his study found that having a global mindset significantly affects leadership behavior. The study also confirms that having a global mindset does not require adapting to any given culture. Rather, the study suggests that global mindset is a framework that consists of a conceptual shift of the leader that allows the processing of complex environmental stimuli to operate effectively in a dynamic, global environment [4].

Based on the references above, basically there are two kind of measurements. First, outcome measurement related to changes in attitudes, behaviour and performance. Second, impact measurement related to changes in business like financial performance, customer satisfaction and so on. Measuring can be done both on External data and on Internal Perception, using 360 leadership assessment.

#### **4. Telkom Leadership Development Program**

Telkom had established Telkom Group Leadership Development System Policy PR 206.05/r.01/HK200/COP-J2000000/2014 that guaranteed the availability of internationally standardized and global-ready leadership. To realize that objective, Telkom Group needs to develop global leadership with high competitiveness in a global situation. Global leadership development was implemented in an integrated and harmonious manner with the company's target achievement, referring to Telkom Group's leadership architecture, company's philosophy of "Always The Best" and global mindset perspective. Global Leadership Capability Development consists of:

- a. *Suspim* Reguler
- b. Global Talent Program, and
- c. *Suspim* International

Global Leadership Capability Development was conducted with 3 pillars: Training Program, Coaching & Mentoring, and Assignment Program.

##### **Global Talent Program**

Global Talent Program is the program of CorpU in creating unique resourcesas Telkom's Comparative Advantage, called Comparative Strategy. Global Talent Program involves assigning talents abroad, in order to achieve Global Ready Certification. The program was initiated by Telkom and Telkom Group to process and promote internal talents to be future Great Leader with global exposure.

The objectives of Global Talent Program are:

1. Developing global talents that are credible, able and certified on technical competences, entrepreneur, functional and leadership to perform and to finish international assignment in well manner.
2. Able to develop networking and partnership with companies related to Telkom's businesses in host countries, to champion Telkom's strategic initiative.
3. Talents are able to apply most updated ideas and best practices and innovative thinking in accordance with innovation of Telkom's core value of collaborative innovation and win-win partnership.
4. Perform and represent Indonesia and Telkom's business interest in professional manner in host countries.
5. Talents are able to finish job assignment during the program, being an exemplary for their peers and colleagues.
6. Talent can be a role model.

Job assignments of GTP participants in different countries go through stages, depend on the learning process depth in the business creation.

##### **Telkom International Capability Center**

Telkom International Capability Centre (TICC) is formed to prepare Telkomers to be "*global ready*". One of its programs to build that competence is the new leadership course called "*Suspim Internasional*" (International leadership course) where instructors and students have to employ English, and combined with employees of Singtel who had committed to send its employees to study in CorpU Telkom.

Some Professor, Associate Professor and Expert from world-famous Universities and Education Institutions, become academic partners of Telkom CorpU. Those Academic partners are INSEAD - the best Business School in the World, Melbourne Business School (MBS), a part of Melbourne University Australia; Thunderbird School of Global Management, National University of Singapore (NUS) and Orange Capability Building. TICC CorpU also partnered with Telkom University (Tel-U) and School of Business and Management (SBM) of Bandung Technology Institute. Both are among the most well-reputed education institution in Indonesia. The advantage of each partners are:

- INSEAD, the best Business School (MBA) in Europe where business leaders across the world studied. In supporting the development of Top 50, INSEAD will provide 7 of its best professor in several campuses in France, Abu Dhabi and Singapore that had become Telkom's international expansion target.
- MBS (Melbourne Business School), is the best business school (MBA) in Australia. MBS placed 3rd rank as Top MBA Global 200 Business School and 1st in Australian Universities 2013.
- NUS (National University of Singapore), without doubt is the best University in ASEAN.
- Thunderbird, the best international business school based in Arizona, Phoenix, USA. Thunderbird ranked 1st in International Full Time MBA by US News & World Report 2014 version.
- Orange, famous for its competence in developing people who start business or expand their business in new areas.

Susipim International is conducted with the objectives of preparing the capability of leaders in executing business mission in international market setting. The difference between Susipim Reguler and Susipim International is that one is conducted domestically while the other is conducted abroad according to the international partner campus. In any case, both domestically and abroad, the language being used is English. The subject delivery methodology applied is *heavy case study*, the syllabus is based on GMI. Action Learning Project (ALP) in the program is directly coached by Project Sponsor and Coach from Partner on line, referring to the framework below:

Fig. 3 International Leadership Learning Journey



Specific goals and hope of the Susipim International are as follows:

- A strategic leader, open their mindset globally and form their perspective about potential business by enhancing global insight and gain new growth opportunity further.
- To provide a comprehensive basic description of all main areas in a global business environment.
- To accelerate Top 10 and Top 50 Telkomers' leadership competence improvement.
- To encourage collaboration between strategic functions in Telkom Group, creating a strong inter-companies network.
- To develop future global leader not only for TelkomGroup but also for Indonesia.
- To build solidity between future Telkom Group leaders in order to accelerate business in a smart manner.

Based on the company's policy, Global Leadership Capability consist of:

- a. Leadership Practices that include terdiri dari Mega Thinking, Leader as Father dan Energize People, Corporate Strategy, Business Strategy and Functional Strategy.
- b. Competences as attributed in Global Mindset.

Those competences are as follows:

Fig. 4 Global Leadership Capability

No.	Competencies
1	Achievement Orientation
2	Action Management
3	Adaptability
4	Analytical Thinking
5	Building Partnership
6	Business Acumen
7	Communication
8	Continuous Improvement
9	Decision Making
10	Developing Great Leader
11	Leadership Of Change
12	Fairness to Subordinate
13	Networking
14	Organizational Awareness
15	Leadership Of Endurance
16	Risk Taking
17	Societal Need Orientation
18	Spirit of Giving
19	Spirit of Loving
20	Team Work
21	Visionary Thinking

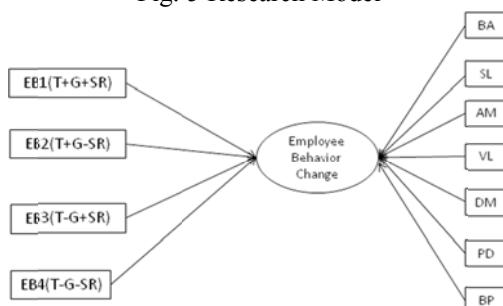
These competences then employed as the basis in developing a questionnaire about supervisors' perception on impact Leadership Development Program attended by their subordinates.

## 5. Research Model, Methods and Measurements

Based on Global Leadership Capability that state in PR 206.05/r.01/HK200/COP-J2000000/2014, variable on Employee behavior contains; Business Acumen (BA), Action Management (AM), Spirit of Living (SL), People Development (PD), Visionary Thinking & Leadership of Change (VL), Decision Making (DM), Building Partnership (BP).

Model applied in this research is as follows:

Fig. 5 Research Model



Research method used is Comparative research, which is the act of comparing two or more things with a view to discovering something about one or all of the things being compared (Wikipedia).

Comparative research is to analyze superior's perception on the behaviours of TICC graduates who had attended Suspim regular and GTP, compared to the behaviours of Suspim International graduates who partially attended leadership development program, either the SuspimRegular or GTP only.

The research instrument used is a questionnaire consisting of 44 statements, as follows:

Table 1 Questionnaire structure

Variable	Number of Statement
Independent Leadership Development Program : - TICC+Suspim Reguler+GTP (EB1(SR+G+T)) - TICC+GTP (EB2(T+G-SR)) - TICC+Suspim Reguler (EB3(T-G-SR))	

Variable		Number of Statement
	- TICC (EB4(T-G-SR))	
Dependent	Supervisor Perception :	
	- Business Acumen (BA)	4
	- Spirit of Loving (SL)	5
	- Action Management (AM)	8
	- Visionary Thinking & Leadership of Change (VL)	6
	- Decision Making (DM)	4
	- People Development (PD)	7
	- Building Partnership (BP)	10

Using discrete measurement scale with a score of 1 to 7, with a score of 1 reflecting disagreement with the statement, while a score of 7 reflecting conformity with the statement.

In this research each variable has the same weight so that the indicator assessment is to calculate the average score of all the variables studied. The more the average is closer to the value of 7 the more the higher the change in behaviours.

The target of this research is 400 participants of Suspim International in 2014, while the population taken were only participants' data of Suspim International (TICC) until June 2014, 127 participants

Determination of the number of respondents in the study conducted by Slovin Sampling methods:

$$n = \frac{N}{1 + N(\epsilon)^2} \quad ce \quad (2)$$

Based on the calculation method of the sample with Slovin, the number of samples is 96 with an error rate of 5%. However, the number of questionnaires collected was 34 questionnaires, so that respondents to this study amounted to 34 respondents.

## 6. Data Analysis and Discussion

### a. Questionnaire Reliability Test Result

Prior to using the questionnaire as research measurement tool, the author conducted a reliability test through alfa Cronbach. The reliability test is a statistical test applied to determine the reliability of a set of question items in measuring a variable. The test was using Alpha Cronbach test. The formula is as follow:

$$\alpha = \left( \frac{K}{K - 1} \right) \left( \frac{s_r^2 - \sum s_i^2}{s_x^2} \right) \quad (3)$$

If alpha value > 0,7 then it has sufficient reliability, while alpha > 0.80 suggested that the whole items are reliable and the whole test is internally consistent with a strong reliability.

Reliability test performed with SPSS ver.20 software. The result of alpha Cronbach test is as follows:

**Table 2 Reliability Test**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.991	.991	44

Based on the result, it can be said that the questionnaire is a very reliable research measurement tool.

### b. Result of Questionnaire Data Processing

Questionnaire Data processing of the research based on data gathered from 34 people, including:

**Table 3 Number of Respondent**

Respondent category	Number of respondent
EB 1 (T + G + SR)	6
EB 2 (T + G - SR)	12
EB 3 (T - G + SR)	13
EB 4 (T - G - SR)	3

Compare Means Analysis result:

**Table 4 Compare Means Supervisor Perception :**

Leadership Program	Mean	N	Std. Deviation
EB 3 (T - G + SR)	5,337662	7	1,0028175
EB 2 (T + G - SR)	5,891608	13	0,8266166
EB 4 (T - G - SR)	6,495455	5	0,3403025
EB 1 (T + G + SR)	6,005051	9	0,6522745
Total	5,896390	34	0,8201726

The result of Compare Means above indicated that Suspim International participants who had not attended either Suspim Reguler and GTP (EB4) had the highest perception value of (6,495).

Based on Compare Mean Leadership Development Program on each Supervisor Perception Variables; these are Business Acumen, Action Management, Visionary Thinking, Spirit of Loving, Decision Making, People Development and Building Partnership, the result is as follows:

**Table 5 Compare Means Variable (1/2)**

Leadership Program	Business Acumen	Spirit of Loving	Action Management	Visionary Thinking
EB3(T-G+SR)	Mean	5,67	5,89	5,56
	N	9	9	9
	Std. Deviation	1,00	1,17	1,01
EB2(T+G-SR)	Mean	5,83	5,92	5,75
	N	12	12	12
	Std. Deviation	,835	,900	,754
EB4(T-G-SR)	Mean	6,00	6,67	6,00
	N	3	3	3
	Std. Deviation	0,00	0,58	0,00
EB1(T+G+SR)	Mean	6,00	6,10	6,00
	N	10	10	10
	Std. Deviation	,471	,738	,667
Total	Mean	5,85	6,03	5,79
	N	34	34	34
	Std. Deviation	,744	,904	,770

**Table 5 Compare Means Variable (2/2)**

Leadership Program	Decision Making	People Development	Building Partnership
EB3(T-G+SR)	Mean	5,44	5,44
	N	9	9
	Std. Deviation	1,13	1,42
EB2(T+G-SR)	Mean	5,75	6,00
	N	12	12
	Std. Deviation	,965	1,044
EB4(T-G-SR)	Mean	6,00	6,00
	N	3	3
	Std. Deviation	0,00	0,00
EB1(T+G+SR)	Mean	6,00	6,00
	N	10	10
	Std. Deviation	,667	,667
Total	Mean	5,76	5,85
	N	34	34
	Std. Deviation	,890	1,019
			,844

It can be explained in equation below:

$$\text{EB4(T - G - SR)} > \text{EB1(T + G + SR)} > \text{EB2(T + G - SR)} > \text{EB3(T - G + SR)} \quad (4)$$

The survey showed a uniqueness since Suspim International participants who had not attended both Suspim Regular and Global Talent Program (EB4) get a higher supervisors' perception value. Author presumed that it is because those participants (EB4) are top talent, so logically are well-perceived by their supervisors. To get a better result, then author excluded EB4 data from the analysis. The result is as follow:

**Table 6  
Compare Means**

Persepsi Atasan :

Leadership Program	Mean	N	Std. Deviation
EB 3 (T - G + SR)	5,268182	5	1,1965213
EB 2 (T + G - SR)	5,867424	12	0,8585558
EB 1 (T + G + SR)	6,022727	10	0,6175058
Total	5,813973	27	0,8599257

After the exclusion of EB4 data, it is showed that:

$$\text{EB 1 (T + G + SR)} > \text{EB 2 (T + G - SR)} > \text{EB 3 (T - G + SR)} \quad (5)$$

The equation above suggested that Suspim International participants who had attended Suspim Regular and GTP (EB1) get a higher supervisors' perception value compared to those who had attended Suspim Regular but not GTP (EB2). Suspim International participants who had not attended Suspim Regular but attended GTP (EB2) get a higher supervisors' perception value compared to participants who had not attended Suspim Regular and GTP either (EB3).

## 7. Data Analysis and Discussion

### Conclusion

Based on the result, author concluded that participants who attended Leadership Development Program stages from Suspim

Regular, Global Talent Program, and Suspim International (TICC), get the highest perception compared to those who had attended either Suspim Regular or Global Talent Program (GTP) only.

### **Recommendation**

- a. Requirements to attend Leadership Development Program should be conducted in stages start with Suspim Reguler, Global Talent Program, Suspim International.
- b. Supervisors' perception survey should be conducted on every participants before and after they finished every leadership development program: Suspim Reguler, Global Talent Program and Suspim Internasional.
- c. Participants attendance in leadership development program should be based on supervisors' recommendation.
- d. Using 360 degrees assessment for further research.

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## The Influence of Co-creation Experience on Customer Satisfaction

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### Abstract

This study aimed to analyse how much co-creation experience influences customer satisfaction with Sunsilk Co-creation as the object of the research. The population is Sunsilk Co-creation users in Bandung region with 100 people as sample. The result shows that the factors which have significant influence in customer satisfactions are co-creation through transaction and price experience in co-creation. The co-creation experience has a significant influence of 25% on customer satisfaction simultaneously. Therefore, the recommendations that can be given in this study are to increase customers' involvement in product creation and also to maximize a horizontal two-way communications between company and customers.

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*Keywords:* Co-creation Experience; Innovation; Customer Satisfaction; Product Creation

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### 1. Introduction

Marketing today is transforming from the old to the new marketing order or called "New World Marketing Order". There are two things produced by the value-based marketing approach. First, the company or the brand owners do not only provide satisfaction or profitability as the target, but also have compassion and sustainability. Second, this kind of marketing approach will be able to create a holistic way for marketers to connect with consumers that can be accepted in the mind, heart, and soul of the consumers, as stated by Kotler, Kartajaya, and Setiawan [1].

This study is conducted with an object of a retail product that is included in low involvement products. The reason why we choose the low involvement product is that in the status quo of the co-creation method in the product creation, this involvement is usually used to create customization details for high involvement product like gadget, technology, or vehicle. The method of Sunsilk Co-creation is a differentiation of common kind of co-creation product that we believe worth to study. The purpose of this study is to analyse how much co-creation experience influences customer satisfaction with Sunsilk Co-creation as the object of the research. Since Sjodin and Kristensson [2] explain that the determination of customers' satisfaction towards the company depends on whether the consumers get the opportunity to participate in the production or not.

To initiate the study, we have conducted a pilot study by interviewing 10 consumers of Sunsilk Co-Creation. The questions are "whether the consumers are satisfied after using Sunsilk Co-Creation?" The result is: 7 out of 10 consumers are not satisfied with the product because the product causes hair loss, dry hair, or branched hair while the purpose of the product is for hair treatment. Moreover, those unsatisfied customers plan not to use Sunsilk Co-Creation any longer and change to other hair treatment product. Hence, there are indications of gap between the result and the value of co-creation

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that is originally designed to facilitate companies to understand consumers' needs. . Singh and Srivatava [3] show that measuring customer satisfaction can give indications of company's success in providing product to the market.

Prahalad and Ramaswamy [4] explain that co-creation is a form of market or business strategy that emphasizes on the running generation and realization that have mutual value between companies and consumers. Co-creation looks at the market as a forum for companies and consumers who actively share, combine, and update the resources and capabilities of each other to create a value through new forms of interaction, service mechanisms, and learning. This method differs from the traditional methods, active companies - passive consumer happening in the past. The dimensions of choice should be included in the customer-company interaction in co-creation experience. There are four dimensions as follows:

1. Co-creation Across Multiple Channel

The choice of channels for consumers and companies are fundamentally shaping the co-creation experience. Co-creation can involve both virtual and physical environments. The numbers of channel (multiple channels) provide many gates to experience. Consumers want the freedom of choice to interact with the company through various gates of experience. The range of the channels is crucial for the consumer experience.

2. Co-creation Through Options

Consumer choice relates to the availability and affordability. Consumers want to define options by reflecting their views on the value. Therefore, companies should provide a choice based on experience (experience-centric) reflecting the desires of consumers.

3. Co-creation Through Transaction

Transactions between the company and customers are the traditional basis for value extraction. Transactions include logistics, information, channels, and associated cost and effort on both sides. For company, transactional efficiency leads to cost reduction and to the creation of value, whereas for customers, the ease of transaction and openness lead to trust which then leads to a satisfying experience. Consumers want to interact and transact in a way and style they want. They want the speed, ease, comfort, security, and access to experience. Consumers may just appreciate the price drop when companies downsize, but the price cutting could not prevent the company from losing the quality of customers' experience.

4. The Price Experience Relationship in Co-creation

Consumers associate choices with how they are willing to pay for experience. They want the price of this experience in a balanced manner.

Kartajaya [5] explains that co-creation in the era of New Wave Marketing is a form where companies provide maximum opportunity for consumer to actively participate in developing new products. That means that the product is a collaborative creation between company and customers. Prahalad and Ramaswamy believe if the company has been running a good process of co-creation, the value of the product will be better than the products produced through methods in the era legacy. Schmitt describes [6] that customer experience management (CEM) is a strategic process that governs the overall consumer experience with the product or the company. Customer experience management is a management concept that is focused on the consumer, who is also a process-oriented to achieve satisfaction. That means co-creation experience is also a form of customer experience. Dobrota, Nikodijevic, and Mihailovic [7] have proved that customer experiences have significant and determinant influence to customer satisfaction.

Gustafsson, Kristensson, and Witell explain [8] that customer co-creation can be combined with product innovation so that the future product is in line with what customer need, because co-creation is about communicating with customer so that the company understands the customer. The study by Dong, Evans, and Zou [9] when customer involves in the service recovery process, they have a tendency to embrace higher role clarity, perceive more value in co-creation, have intention to co-create value in the future, and the most important thing is that they have the feeling of satisfaction towards the services. This kind of idea can also be implemented in the creation of a product. Kotler and Keller [10] describe that satisfaction is a feeling of pleasure or disappointment of a person which is a result of comparison between performances of the product with customer expectations for the product. One thing that can be analyzed to determine whether or not the customer is satisfied is by analyzing whether or not the customer wants to do a repetitive buying for the same product in the future. Moreover, the object that we use in this study is low involvement products that customers need daily. Cengiz [11] found that the acknowledgement of customers' expectation leads to customer loyalty and profit at the end of the day. The measurement of customer satisfaction, the company not only can determine customer's knowledge but also determine the competitor in the market.

## 2. Method

### 2.1. Research design

To determine the effect of co-creation experience on customer satisfaction, this study uses quantitative methods with the questionnaires. Quantitative research can provide exact numbers and percentages towards the problems. Sugiyono [13] explains that quantitative research is concrete/empiric, objective, measurable, rational, and systematic. The research data is in a form of numbers and statistical analysis. That is why we believe that a quantitative method is appropriate to this study because it provides objective result and can be proved by number and statistical analysis..

The questionnaire consists of questions that encompass the dependent and independent variables which are co-creation experience and customer satisfaction. It has 17 questions, and those questions have passed the validity and reliability test. The scale that is used in this study is ordinal scale. Suharsaputra [14] explains that ordinal scale is a measurement scale arranged in sequence from the lowest value to the highest value based on a particular characteristic. However the order (ranking) with the other does not have the same distance. The instrument scale that is used in this study is Likert scale, to measure the attitudes, opinions, and perception of a person or group of people on an occurring phenomenon. The variables to be measured are translated into indicator variable, and then they are used as a starting point to develop instrument items which can be a statement or a question. Likert scale has gradations from very positive to very negative.

Muhidin & Abdurahman [15] explains that the first thing to be done in path analysis is to describe the causal relationships between variables of causes and effects in a form of diagrammatic variable structure. In addition, its shape is determined by the theoretical propositions derived from particular framework. In this study the diagram is visualized by path model. Independent variable is a variable that can affect other variables. Dependent variable is the variable that is affected by the independent variable. In this study the independent variable is the co-creation experience with the dimensions of choice as its approach. The dependent variable in this study is the customer satisfaction, as stated by Tika [16].

To determine the effect of co-creation experience on consumer satisfaction with the approach of choice dimensions in the Sunsilk Co-creation, path analysis will be used (path analysis). Sandjojo [17] explains that path analysis is a research method mainly used to test the strength of the direct and indirect relationships among different variables. This is in line with one of the research goals, which is to determine the causal relationship. In path analysis, the variables analyzed are divided into two groups, namely exogenous and endogenous variables. In this study, the exogenous variables are co-creation across multiple channels (X1), co-creation through option (X2), co-creation through transaction (X3), the price experience in co-creation (X4), while the endogenous variable is customer satisfaction. Field research is conducted by going directly to the field. The survey is done by spreading questionnaires to respondents. According to Sugiyono [13] questionnaire is a data collection technique that is done by giving a set of questions or written statements the respondent to answer. Data collection is carried out in the shopping places in Bandung.

### 2.2. Sample

According to Sarwono [18], the numbers of sample in path analysis are at least 100. The characteristic of respondent is shown in table 1.

Table 1. Characteristic of respondent

Characteristic	%
Gender	
Women	80%
Men	20%
Age: 20-30 years old	65%
Duration of Product Usage: Less than a year	65%

80% of the respondents are women and the 20% are men. Each gender has different needs of hair care products. Most respondents' age ranges from 20-30 years old, 65% of 100 people. Most of the respondents use the products for less than 1 year with the percentage of 65%. The duration of the product usage shows us that the respondents consistently use the

product in the long term or not. With the assumption that consumers are satisfied with the quality or performance of the product, the consumer will re-purchase and continue using these products until the long term. The different levels of duration of use can give an idea regarding the level of consumer satisfaction, whether the consumers make repeating purchases or not.

### 3. Results and discussion

#### 3.1. Response towards co-creation experience and customer satisfaction

Dimensions of the co-creation experience are commonly referred to as the dimensions of choice by Prahalad and Ramaswamy [4] consisting of co-creation through multiple channel, co-creation through option, co-creation through transaction, and price experience in co-creation. The result towards co-creation experience and customer satisfaction is presented in table 2.

Table 2. Response towards co-creation experience and customer satisfaction

aVariable(s)	%	Category
Co-creation Experience		
Co-creation Across Multiple Channels	59.13%	Low
Co-creation Through Option	72.38%	High
Co-creation Through Transaction	76.38%	High
The Price Experience in Co-creation	69.75%	High
Customer Satisfaction	63.25%	High

Response towards co-creation through multiple channels is low with the percentage of 59.13% indicating that there are lacks of channels for respondents to express their opinions, criticism, and suggestions or input for the development of innovative products that meet the consumers' wishes, so they feel less involved in the product creation. Although the collaboration with the endorsers already meet the perceived value of co-creation experience, but it would be better if the company has direct two-way communication with the consumers. The results of the questionnaire responses also prove that the two-way interaction through social media such as Facebook and Twitter are minimal Nevertheless, in today's horizontal era it is an effective and easiest way to use social media to establish two-way communications with customers. The responses towards co-creation through option is high with the percentage of 72.38% which enables us to know the product options for customers' various needs with proper price are available.

Responses towards co-creation through transaction is high with the percentage of 76.38% which means that the products are easy to get and are available in the nearest store. This ease of access to the product visualizes how the company tries to simplify the effort that customer has to give to get the product. Responses towards price experience in co-creation is high with the percentage of 69.75% which indicates the correlation between the prices that customer has to pay and the benefits that customer get. The response of this variable is high. It means that the respondents believe that the price they paid is appropriate to the benefit they obtain and they are also willing to pay the price that had been set. Responses towards customer satisfaction is high with the percentage of 63.25%. The indicators of customer satisfaction are expectations and performance of products in reality or perceived benefit of the product that the customers get. To determine whether or not the customer is satisfied about a product, Kotler and Keller [10], state that it can be done by comparing the expectation with the benefit consumers get or the performance of the product.

However, the results above show customers' response only on the co-creation experience and customer satisfaction without relating it to each other and how significant the influences are. The relation and influence will be explained later in this study. This study finds that other variables influencing customer satisfaction that is not discussed in this study have more percentage, and therefore it will be explained later in this study.

### 3.2. Path analysis

After the simultaneous and partial test were conducted, it can be concluded that the variable of co-creation across multiple channels (X1) and co-creation through option (X2) are not qualified to get modelled as path model, therefore those variables are no longer eligible to be included in the calculation. The remaining variables are: co-creation through transaction (X3) and price experience in co-creation (X4) that will be calculated to determine its influence towards customer satisfaction (Y).

Table 3. R square result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.500 <sup>a</sup>	0.25	0.227	3.15926

The result of simultaneous test is that the coefficient of determination is 0.250, it can be interpreted that 25% of customers satisfaction are simultaneously influenced by the co-creation experience. As for other factors that are not discussed in this study but have influences on customer satisfaction is 75%. To know the significance of the influence we conduct an F test and the result is presented in table 4, the ANOVA table.

Table 4. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	296.497	2	148.248	14.645	.000 <sup>b</sup>
1	Residual	981.903	97	10.123		
	Total	1278.4	99			

The result of the F test shows us with the significance  $\alpha$  rate of 5%, the  $F_{\text{count}}$  is greater than the  $F_{\text{table}}$  ( $14.645 > 3.09$ ). This means that there is significant influence simultaneously between co-creation through transaction and price experience in co-creation towards customer satisfaction. To define how much each variable influencing the customer satisfaction, we conduct a partial test. The result is presented in table 5 of coefficient result.

Table 5. Coefficient result

Model		Unstandardized Coefficients		Standardized Coefficients		T	Sig.
		B	Std. Error	Beta			
	(Constant)	10.034	1.517			6.615	0
1	X3	0.614	0.278	0.251		2.209	0.03
	X4	0.482	0.194	0.283		2.488	0.015

The result of partial test shows co-creation through transaction (X3) with the  $t_{\text{count}}$  of 2.209 and price experience in co-creation (X4) with the  $t_{\text{count}}$  of 2.488. Since those variables have greater  $t_{\text{count}}$  than  $t_{\text{table}}$  of 1.98, this means that the variables mentioned have the significant influence towards co-creation experience. The correlation between X3, X4, and Y can be visualized by the path model in figure 1.

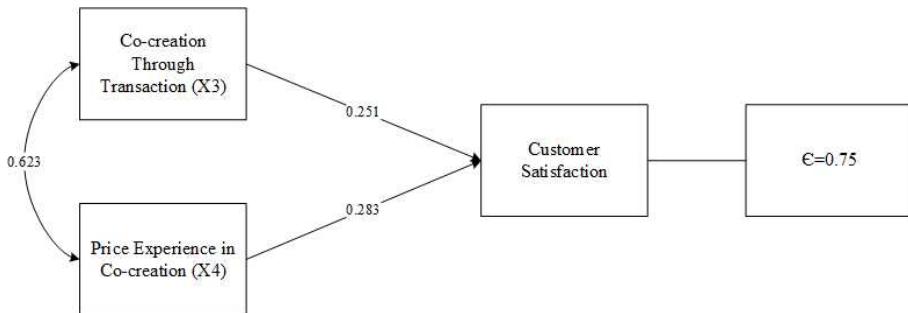


Fig. 1. Path model of correlation between variables

After trimming the method conducted, it shows that the variables that have significant influence either directly or indirectly to customer satisfaction are the variables of co-creation through transaction and the price in co-creation experience. Direct influence for co-creation through transaction (X3) on customer satisfaction is 6.3%, while the indirect effect through (X4) is 4.4%. The direct effect of price experience in co-creation (X4) on customer satisfaction is 8%, while indirect effect through X3 is 17.5%. The calculation of the influence is presented in table 5.

Table 5. Direct and indirect influence of co-creation experience on customer satisfaction

	Direct	Indirect	Total Influence
Co-creation Through Transaction (X3)	$\rho_{yx3} \times \rho_{yx3}$ $= 0,251 \times 0,251$ $= 0,063 = 6,3\%$	Through X4 $\rho_{yx3} \times \rho_{yx4} \times R_{x3x4}$ $= 0,251 \times 0,283 \times 0,623$ $= 0,044 = 4,4\%$	$= 6,3\% + 4,4\% = 10,7\%$
Price Experience in Co-creation (X4)	$\rho_{yx4} \times \rho_{yx4}$ $= 0,283 \times 0,283$ $= 0,08 = 8\%$	Through X3 $\rho_{yx4} \times \rho_{yx3} \times R_{x4x3}$ $= 0,283 \times 0,251 \times 0,623$ $= 0,044 = 4,4\%$	$= 8\% + 4,4\% = 12,4\%$

### 3.3 Contribution to literature

In this study we have found the influencing factors and should be maximized in order to obtain value added to a product. Therefore, two important values should be integrated in the marketing literature, customer satisfaction and customer participation in product creation. By establishing the relevance of co-creation experience in customer satisfaction, we have established a basis for future research.

This study has determined several things that cause the lack of effective co-creation experience towards customer satisfaction. How is the role of a company that should have more intense two-way communications with customers so that the customers will feel more engaged in the manufacture of the product, and how the product can meet the needs and desires of consumers to maximize customer satisfaction with the product? Not only limited to product availability and price as we know that in the era of new wave marketing now, everything is horizontal especially in the terms of marketing. This research uses dimensions of choice in co-creation as its approach by Prahald and Ramaswamy [4]. These dimensions serve as independent variables that give influence to customer satisfaction.

The focus of this study is to investigate and determine whether or not co-creation experience has significant influence towards customer satisfaction. In this study we use dimensions of choice as independent variables that give influence as the approach. Future research should explore other potential approaches of co-creation experience that might have more significant influences toward customer satisfaction. This study is limited to retail products which are low involvement goods. Future research should also study co-creation on high involvement goods like technology or vehicle that can provide maximum customization that might maximize co-creation experience as well.

#### 4. Conclusion

The purpose of this study is to analyse the influence of co-creation experience on customer satisfaction using retail product as the object of research, Sunsilk Co-creation, thus the theoretical and experimental studies are conducted in this research. Quantitative method is used in this study with questionnaires as the media of data collection, path analysis and statistical formulation are used to process the data.

Based on the data processing, it is found that the co-creation experience variables that have significant influence towards customer satisfaction are co-creation through transaction and price experience in co-creation. The tests found that 25% of customer satisfaction are simultaneously influenced by co-creation experience and the other 75% are influenced by other factors that are not discussed in this study.

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## The Influence of E-SERVQUAL on Customer Satisfaction

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### Abstract

This study aimed to determine the influence of E-SERVQUAL on Customer Satisfaction, with Mobile Phone Account of CIMB Niaga as the object of analysis. The analysis of this study focused on the dimensions of E-SERVQUAL consisting of Efficiency, System Availability, Fulfilment, Privacy, Responsiveness, and Contact. The method used in this study was Path Analysis. The results of this research were that E-SERVQUAL of Mobile Phone Account gave significant influences on Customer Satisfaction simultaneously, and only Efficiency, Privacy, and Contact gave significant influences on customer satisfaction partially.

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**Keywords:** E-SERVQUAL; Customer Satisfaction; CIMB Niaga; Path Analysis.

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### 1. Introduction

In business, getting a stable income is a must in order to survive in market, which means that a company should have a way to maintain a continuous purchasing conducted by their customer. A customer who buys a product continuously is a happy customer, and the same goes for bank customer. According to Navaratnaseelan [1], maintaining high quality services in a commercial bank will result excellent customer satisfaction, and low quality services will lead to a decline in customer satisfaction, which also may result the loss of the customers.

According to Kotler [2], turbulence happens in current market, based on the following elements: Changing Technology, Globalization, Deregulation, Privatization, Customer Empowerment, Customization, Heightened Competition, Industry Convergence, Retail Transformation, and Disintermediation. In order to survive in current market, companies (including CIMB Niaga) should involve those elements in their services. One of the elements that cannot be separated is changing technology. Technology exists among society, and it has become daily needs. Therefore, to develop a technology-based innovation is a suitable way to empower companies in order to make certain of their existence in current market. In this case, PT CIMB Niaga Tbk launched a new service innovation: mobile phone account that enables customer to do many transactions only by their mobile phone number. To determine whether this innovation is enough to boost or just merely maintain their customer's expectation, a certain research must be done. In this research, we conducted a research regarding the influence of electronic service quality on customer's satisfaction (A Case Study of Mobile Phone Account of CIMB Niaga)

According to Kotler [2], customer satisfaction is a result that felt by customers who experiences the product's performance that met their expectations. Customers will feel satisfy if their expectation is fulfilled, and they will feel delightful if the performances of product exceed their expectations. A satisfied customer tends to keep being loyal in a longer period; purchase more; and be insensitive in the change of price, and their words give a benefit for the company. According to Eguna [3], a firm's success and growth are dependent, at least in part, on the extent to which it could integrate the firm's knowledge about the customers' needs, wants, preferences, and so on with the firm's own intellectual, creative capacity and skills. Consequently, a comparative advantage is secured through an intelligent identification and satisfaction of customer needs that are better and sooner than its competitors, and sustenance of customer satisfaction through better service quality. Therefore the theoretical framework to determine the level of customer satisfaction is: if a customer is known satisfied, then the company only needs to maintain its service quality; if a customer is known unsatisfied, then the company needs to improve its service quality. In a context of mobile phone account as electronic service quality (or known

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as E-SERVQUAL), the concept of e-service, according to Soledad [4], is a broad concept and there is no definition of the term that is generally accepted by all researchers since the function of electronic service is perceived differently depending on contained functions. However a complete definition of e-service should go beyond mere commercial transactions (e-commerce) to take into account all the key processes and interactions that are involved before, during, and after delivering the services. We believe that the key factors of mobile phone account's service quality are determined by the factors below, which are well known as E-Servqual's dimensions supported by Zeithaml [5]:

- a) Efficiency: the ability of a customer to access account, search for desired products and information that related to the desired products, and leave the account with minimum effort. Later it will be referred as  $X_1$
- b) Fulfillment: the actual company performance compared with the promised company performance through online and offline promotion. Later will be referred as  $X_2$
- c) System Availability: the technical functionality of the site. Whether it functions as it should be or not. Later will be referred as  $X_3$
- d) Privacy: the assurance and ability of the company to protect the customers' data integrity. Later will be referred as  $X_4$
- e) Responsive: the effectiveness of problems handling and restitution through the site. Later will be referred as  $X_5$
- f) Contact: availability of help through telephone or online representative. Later will be referred as  $X_6$

According to the explanations above, we were able to make the theoretical framework to be used in this research and to become the reference for systematic steps making the first level of discussion to be the basic of the next level of discussion. Figure 1 below is the theoretical framework of this research:

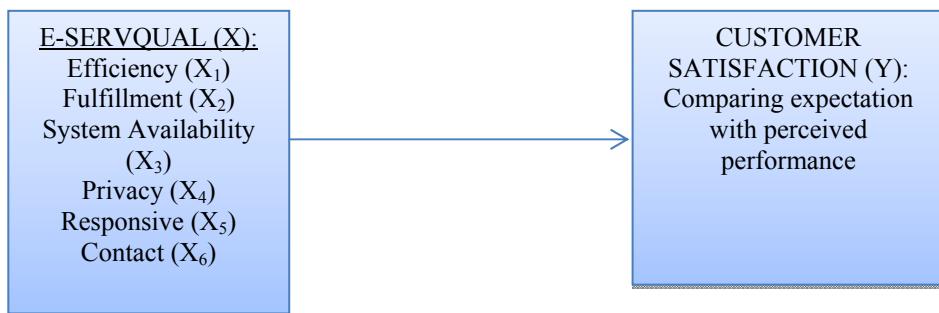


Fig 1. The theoretical framework.

## 2. Method

### 2.1. Population and Sample

The total population is the customers of CIMB Niaga who use mobile phone bill. According to Kontour [6], the representative of this population is called a sample. To set the number of respondents, Parasumanan [7] stated that the sample size of the population with an unlimited number can be decided by taking of at least four or five times the number of the studied sub variables. The sub variables in this study were seven. Therefore, the minimal number of respondents of this study was 35 respondents.

### 2.2. Research Design

The researchers used a quantitative research by using questioner and customers of CIMB Niaga's Mobile Phone Account as the respondents. Total obtained respondents were 101 persons. Based on figure 2 we were able to determine that samples consisted of 60% female and 40% male with the total of samples of 101 respondents, including 28% of the respondents who had used the CIMB Niaga's mobile phone account for less than one month, and 72% of the respondents who had used the CIMB Niaga's mobile phone account for one month and more. .

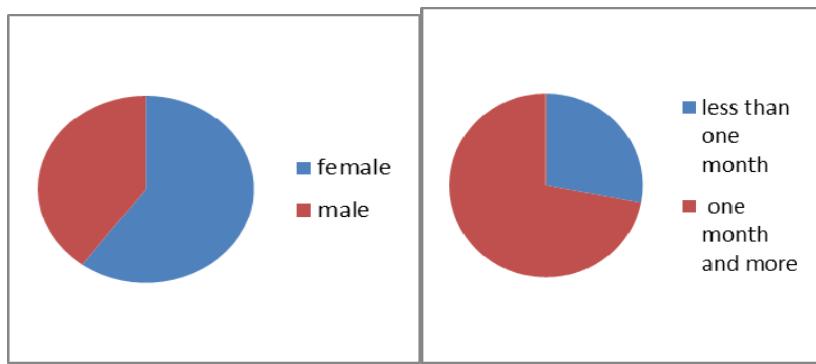


Fig 2. The respondents based on gender (left) and based on the length of usage (right).

### 2.3. Research Data

A research data is an amount of obtained scores from respondent's responses towards questions or statements regarding the operational variables, which are variable X (E-SERVQUAL) and variable Y (Customer's satisfaction). These variables were analyzed by using quantitative analysis, descriptive statistic and non – parametric statistic testing, which is path analysis. Suharsaputra [8] said that the path analysis is used to describe the relationship between the variables of both conceptual and statistical. The obtained respondent data through the questionnaire were analyzed descriptively. Other data obtained from literature would be used as the secondary data to complete and support the primary data.

## 3. results and discussions

### 3.1. Response towards E-SERVQUAL and customer satisfaction

The response of respondents towards E-SERVQUAL and the customer satisfaction can be seen in the table 1 below:

Table 1: Response towards E-SERVQUAL and customer satisfaction		
Variable(s)	%	Categorized as
<b>E-SERVQUAL</b>	<b>73,96%</b>	<b>High</b>
Details	Efficiency ( $X_1$ )	78,59%
	Fulfillment ( $X_2$ )	64,73
	System Availability ( $X_3$ )	77,23%
	Privacy ( $X_4$ )	78,22%
	Responsive ( $X_5$ )	72,65%
	Contact ( $X_6$ )	72,36%
<b>Customer Satisfaction</b>	<b>75,25%</b>	<b>High</b>

Based on the table above, the researchers can determine as follow:

- a) The response towards the efficiency of CIMB Niaga's Mobile Phone Account was high with the percentage of 78, 59%. According to Zeithaml [5], it means that the customers of CIMB Niaga experienced the easiness of using Mobile Phone account, because the display of the Mobile Phone Account enabled them to find what they needed, and they could log out with minimum effort.
- b) The response of respondents towards the fulfillment of Mobile Phone Account was categorized high with the percentage of 64.73%. Using zeithaml theory [5], we can interpret that the customers of CIMB Niaga's Mobile Phone Account felt satisfied enough, and perceived that the services of the product were quite the same as the promise. However, it should be underlined that the response towards the fulfillment was the lowest compared others.
- c) The percentage of system availability reached 77, 23% or was in the category of high. It can be interpreted the data as follows: according to the respondents, the system of Mobile Phone Account functioned as it should be.
- d) The response of the respondents towards the privacy of Mobile Phone Account was categorized high with the percentage of 78.22%. It can be interpreted that CIMB Niaga was able to give assurance, and protected the integrity of their customer's data.

- e) The response towards the responsiveness reached the category of high with the percentage of 72, 65%, and according to Zeithaml [5], the interpretation is that the customers felt that the company helped them quite well when a problem occurred.
- f) The response towards the contact was categorized high with the percentage of 72, 36% meaning that the customers found no difficulties in contacting the company, and responded quite well as defined by Zeithaml [5]. It can be concluded that the E-SERVQUAL of CIMB Niaga's Mobile Phone Account reached 73.88% or accounted as high for respondents
- g) The response towards the customer satisfaction was categorized high with the percentage of 75,25% meaning that customer was satisfied enough with this services because it complied with customer's need and expectation, and customer was willingly to recommend the services and had no intention to stop using the services, this theory was supported by Kotler [2].

### 3.2. The Path Analysis

#### 3.2.1. The Simultant Path Coefficient Testing

After being tested simultaneously and partially, the researchers came to a conclusion that 3 variables of Fulfillment ( $X_2$ ), System Availability ( $X_3$ ) and Responsiveness ( $X_5$ ) were not qualified to get modeled as the path model, therefore the mentioned variables were excluded from the calculation. The remaining variables: *Efficiency* ( $X_1$ ), *Privacy* ( $X_4$ ) and *Contact* ( $X_6$ ) were calculated to determine their influence towards the customer satisfaction (Y), then the results were as follows:

- a) The determination coefficient was 0,521 or 62,1%, which was interpreted that E-SERVQUAL influenced the customer satisfaction as much as 62,1%, while other factors that were not concern in this research influenced the customer satisfaction as much as 37,9%
- b) The researchers obtained  $F_{count}$  of variables was 52,692 while  $F_{table}$  was 2, 69. It can be concluded that  $F_{count} > F_{table}$ . The statement can be interpreted as: E-SERVQUAL gave a significant influence towards the customer satisfaction.

#### 3.2.2. The Partial Path Coefficient Testing

After being tested simultaneously, the individual testing was then performed again to see the significance of the effect of independent variables ( $X_1$ ,  $X_4$ , and  $X_6$ ) partially on the dependent variable (Y). It, then was tested by t-test

- a)  $X_1$  had  $t_{count}$  of 3,564 and  $t_{table}$  of 1, 98. By this the researchers can conclude that  $t_{count} > t_{table}$ , so the interpretation was that there was a significant influence between the efficiency and the customer satisfaction
- b)  $X_4$  had  $t_{count}$  of 5,865 and  $t_{table}$  of 1,98. By this the researchers can conclude that  $t_{count} > t_{table}$ , so the interpretation was that there was a significant influence between the privacy and the customer satisfaction
- c)  $X_6$  had  $t_{count}$  of 2,112 and  $t_{table}$  of 1, 98. By this the researchers can conclude that  $t_{count} > t_{table}$ , so the interpretation was that there was a significant influence between the contact and the customer satisfaction

#### 3.2.3. The Path Model

These variables with a significant effect had been simultaneously and partially obtained. It consisted of  $X_1$ ,  $X_4$ , and  $X_6$ . The making of path models and equation was plausible. The value of the correlation between variables eksodern was needed to be able to create the path models and equation. Here below is the analysis of the path model:

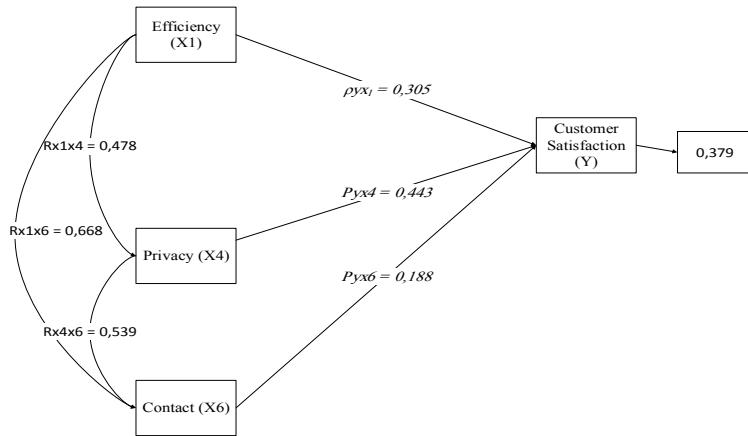


Fig 3. The Path Model of Efficiency, Privacy, and Contact on the Customer Satisfaction

The structural equation model is as follows:

$$Y = 0,305 X_1 + 0,443 X_4 + 0,188 X_6 \quad (1)$$

With residues derived from (1-coefficient determination) =  $(1 - 0,621) = 0,379$

Thus, the calculations can be done as follows:

Table 2: Results

The Influence of Variable	<i>Efficiency</i> ( $X_1$ )	<i>Privacy</i> ( $X_4$ )	<i>Contact</i> ( $X_6$ )
Through Variable			
<i>Efficiency</i> ( $X_1$ )	$\rho_{yx1}^2 = 0,305^2 = 0,093$	$\rho_{yx4}^2 = 0,443^2 = 0,1962$	$\rho_{yx1} r_{x1x6} \rho_{yx6} = 0,305 \times 0,668 \times 0,118 = 0,024$
<i>Privacy</i> ( $X_4$ )	$\rho_{yx1} r_{x1x4} \rho_{yx2} = 0,305 \times 0,478 \times 0,443 = 0,0645$	$\rho_{yx1} r_{x1x4} \rho_{yx2} = 0,443 \times 0,478 \times 0,305 = 0,0645$	$\rho_{yx6} r_{x4x6} \rho_{yx4} = 0,118 \times 0,539 \times 0,443 = 0,028$
<i>Contact</i> ( $X_6$ )	$\rho_{yx1} r_{x1x6} \rho_{yx6} = 0,305 \times 0,668 \times 0,118 = 0,024$	$\rho_{yx4} r_{x4x6} \rho_{yx6} = 0,443 \times 0,539 \times 0,118 = 0,028$	$\rho_{yx6}^2 = 0,118^2 = 0,0139$
Total Influence	$0,093 + 0,0645 + 0,024 = 0,1816$	$0,1962 + 0,0645 + 0,028 = 0,2887$	$0,0139 + 0,0240 + 0,028 = 0,0659$
<b>The total influence of e-Servqual on the customer satisfaction of CIMB Niaga</b>	<b><math>0,1816 + 0,2887 + 0,0659 = 0,5362</math></b>		

Thus, the researchers can conclude the total influence of the E-SERVQUAL consisting of efficiency, privacy, and contact variables on the customer satisfaction reached 53.62%

## 4. Conclusions

### 4.1. The Conclusions

E-SERVQUAL of mobile phone account in this study were divided into 6 sub-variables, namely Efficiency, Fulfillment, System Availability, Privacy, and Contact Responsive. The 6 sub-variables have been responded, and were categorized high. It can be concluded that the E-SERVQUAL of CIMB Niaga's Mobile Phone Account reaching 73.88% was accounted high by the respondents.

The customer satisfaction responded by the respondents in the distributed questionnaire reached the level of 75.25%, and it can be categorized high. It can be concluded that the customers satisfied with the service quality offered by the mobile phone account.

For the simultaneous test, it was noted that the coefficient determinant of trimming phase 3 resulted in this study was 0.621. This means that the E-SERVQUAL of mobile phone accounts had an influence on the customer satisfaction phones account as much as 62.1%, and 37.9% of it was influenced by other factors. The f-test was also performed to determine the simultaneous effect of variable X to variable y, which was obtained that the  $F_{count}$  was 52,962, and the  $F_{table}$  was 2.966. Thus it was concluded that if the  $F_{count} > F_{table}$ , there was a significant effect with the E-SERVQUAL on the customer satisfaction simultaneously.

Then the partial test was also conducted to determine the effect of independent variables on the dependent variable individually, which in this study the results were obtained from the 6 variable Xs: Efficiency ( $X_1$ ), Fulfillment ( $X_2$ ), System Availability ( $X_3$ ), Privacy ( $X_4$ ), Responsive ( $X_5$ ) and Contact ( $X_6$ ), only Efficiency ( $X_1$ ), Privacy ( $X_4$ ), and Contact ( $X_6$ ) that had a significant influence on the customer satisfaction (Y) with the  $t_{count}$  was 3,564, 5.865, and 2.112 respectively. 3 variables passed the T-test in which  $t_{count} > t_{table}$  with the  $t_{table}$  of 1.99. Thus it can be seen that the total influence of the E-SERVQUAL of CIMB Niaga's mobile phone account on the customer satisfaction through path models was 53.62%. The following is the explanation of each of these variables analysis:

- a. The customer of mobile phone account satisfaction was influenced by the efficiency of its service. It means that the customers were satisfied because they can efficiently use the mobile phone account
- b. The customer satisfaction was not influenced by the fulfillment of the promise of the mobile phone account's service. It means that the customers did not feel satisfied because they felt that the perceived performance of mobile phone account did not match what was promised
- c. The customer satisfaction was not influenced by the presence of mobile phone account. It means that the customers did not feel satisfied because they could not access the mobile phone account in every available CIMB Niaga machine (either Automatic Teller Machine or Cash Deposit Machine)
- d. The customer satisfaction was affected by the privacy of the service. It means that the customers were satisfied because they felt their privacy can be protected in the mobile phone account of CIMB Niaga
- e. The customer satisfaction was not affected by the responsiveness of service, which means that the customers were not satisfied because the CIMB Niaga's phone number account / CIMB Niaga was not responsive enough when there was a problem
- f. The customer satisfaction was influenced by the contact of service. It means that the customers were satisfied because they could call the contact number of CIMB Niaga and could solve the problem through the contact.

Through this study, it can be concluded that the E-SERVQUAL of mobile phone accounts had a significant influence on the customer satisfaction of CIMB Niaga.

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# The influence of market attractiveness and core competence on value creation and competitive advantage and its implication on business Performance (A study at Pay TV Industry in Indonesia)

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## Abstract

The average Indonesian watches 5.5 hours of TV a day. With a population of 242 million people and a Free-to-Air (FTA) TV penetration rate of 56%, that equates to 745 million hours of television watched each day. With such potential, it is no wonder that many companies are now attempting to get into the Pay TV market. Research firm Media Partner Asia has forecast in its study that the number of Indonesian pay-television subscribers will climb from 2.4 million in 2012 to 8.7 million by 2020, with penetration scaling up from 7 percent to 21 percent.

Key drivers of market growth, the study says, include macro trends built around higher disposable income and a rising middle class, with leading players continuing to invest significantly in sales, distribution and content. New entrants, in the meantime, will boost overall prospects.

This study aims to examine and analyze the effect of Market Attractiveness and the Core Competence on Value Creation and Competitive Advantage and its impact to Business Performance in the pay TV industry in Indonesia. The study using strategic management science approach with the census method in which all members of the population are as sample. Verification method is used to examine the relationship between variables.

The unit of analysis in this research is all Indonesian Pay TV business units totaling 19 business units. The unit of observation is the director and managers of each business unit. Hypothesis testing is performed by using statistical Partial Least Square (PLS).

The conclusion of the study shows that the market attractiveness affects business performance through value creation and competitive advantage. The appropriate value creation comes from the company ability to optimize its core competence and exploit market attractiveness. Value creation affects competitive advantage. The competitive advantage can be determined based on the company's ability to create value for customers and the competitive advantage has an impact on business performance.

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*Keywords:* Market Attractiveness, Core Competence, Value Creation, Competitive Advantage, and Business Performance

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## INTRODUCTION

In general, pay TV business in Indonesia has developed quite well driven by the entry of new players into this business. However, market penetration is still relatively small or less than 3%. The market which is large enough to encourage investors to enter into the pay TV business has made the pay TV business in Indonesia more attractive. Although Indonesia has a total of 62.5 million households in 2011, with a population of approximately 48 million televisions, the development

of pay TV industry in Indonesia is the slowest in Asia, only capable of penetrating to 3% of households, or about 1.3 million houses in various regions in 2010.

Indonesia had a total number of 62.5 million households in 2011, with a television population of approximately 48 million, while the potential market of pay TV subscribers in Indonesia reached approximately 12 million, or about 30% of the population of the television. The fact that there are more than 40 million television owners and the new untapped market of 2.5 percent can create new markets. There are a number of factors that make the sale of pay TV in Indonesia is still not excited, such as: the subscription rates issue which has not yet been attractive; and the support of local content providers which is still relatively weak. The content of pay TV is dominated by foreign investors. Nearly 50 percent of operating costs is spent on buying content. It greatly affects the cost of the subscription.

Based on the research results of Price Waterhouse Coopers (PWC), the growth of pay TV market in Indonesia is only around 2% per year, far below Vietnam, Malaysia, and even Pakistan. The lack of penetration of pay television services (pay TV) in Indonesia has made business opportunities in this sector quite large. Pay TV penetration in Indonesia is estimated to reach 5% -10%. The crucial thing in pay TV business is the people adoption rate which is still low. Today most of the people in Indonesia still rely on free-to-air services which are commonly used today.

Pay TV market penetration is only 3% per year, far below Malaysia 50%, India 79% and China 45%. However, the pay TV service providers continue to believe that market will grow to 7% by 2015, in line with economic growth and purchasing power. Ideally, pay TV subscribers is 30% of the total TV owners; in Indonesia the number of pay TV subscribers is only 2% of the total 40 million TV owners.

In order to accelerate market growth, the existing operators such as MNC Sky Vision, Telkomvision, and First Media and other, have come up with various strategies of product differentiation to target lower segments. Good education becomes crucial to support the migration of consumers to pay TV FTA. Innovation in the field of content is also crucial to encourage people to use a pay TV service. Local content is considered as one potential model of content.

The competition in pay TV is not only the content, but also the creation of value for the customer; the key is to wrap products according to the targeted customers segments. Space for innovation in pay TV is more limited than the telecommunications business. However, the moving level of customers (churn) in the pay TV is more difficult than telco because there is a device installation process which is not easy.

In conducting the business, pay TV company has several factors that may affect the business activities that may impact the company's performance either directly or indirectly. The inability of the company in the creation of value will result in the difficulty to get, to improve and to maintain the customers, which eventually will give negative impact to the company's operational and financial performance.

In the last five years, 5 pay TV companies have been recorded to have declared to cease its operations. With the huge market opportunity, bankruptcy becomes an interesting phenomenon to observe. There were at least four pay TV companies that stopped operating in 2012. The first was Globalvision which stopped operating in 2002. Globalvision officially ceased operations before promoting its subscription packages. The second was Astro Nusantara which stopped operating in 2008. It is due to unresolved internal conflict between Astro All Asia Networks and DirectVision as the owner of Astro Nusantara upon license and stocks possession issues. Third, was PentaVision which stopped operating in 2012. Like Globalvision, PentaVision stopped operating before launching the products officially.

Despite the slow market growth and collapse of four pay TV companies, there are huge enthusiasts for this kind of industry. There are currently at least 250 companies that apply for opening pay TV business in Indonesia.

Based on the above explanation, we intend to observe the influence of market attractiveness and the core competence on value creation and competitive advantage and its implications upon business performance of pay TV industry in Indonesia.

## 1. PROBLEM FORMULATION AND HYPOTHESES

Based on the identification of the problems above, the scope of variables to be studied consists of market attractiveness, core competence, value creation, competitive advantage and business performance. The object under study is a paid or subscription television industry located in Indonesia. The time of the study was scheduled in 2013.

Based on the formulation of the problem and research paradigms that have been described, the hypotheses of this study are as follows:

1. Market attractiveness and the core competence influence value creation either partially or simultaneously.

2. Market attractiveness and core competence influence competitive advantage.
3. Value creation influences competitive advantage.
4. Market attractiveness and core competence influences business performance through value creation and competitive advantage.

## **2. RESEARCH METHODOLOGY**

In this study, the researcher uses the census method in which all members of the population are as sample. Verification method is used to examine the relationship between variables, which is the influence of market attractiveness and the core competence on value creation and competitive advantage and their implications upon business performance of pay TV industry in Indonesia. By using the research method, a significant relationship between the variables studied to produce conclusions that will clarify the picture of the object under study, will be found.

The unit of analysis in this research is all business units totaling 19 business units of the company at the pay TV industry in Indonesia. Thus, this research is by census. The unit of observation is the directors and managers in the Pay TV companies. Each unit of analysis is represented by 3-5 respondents to avoid unwanted bias. The total number of units of observation is 61 people, which consists of 20 directors representing the top management, and 41 managers.

Data collected through surveys. The data required in this study is primary data collected through interviews with the management of pay TV in Indonesia to complement and strengthen secondary data. The research instrument uses questionnaire to collect primary data from managers and directors of pay TV. Observation is carried out to obtain more accurate information and to obtain other information which cannot be predicted in advance. Observations are made by examining, reviewing records or reports regarding market attractiveness, core competence, competitive advantage, value creation and business performance of the pay TV companies from different institutions related to the problems to be studied.

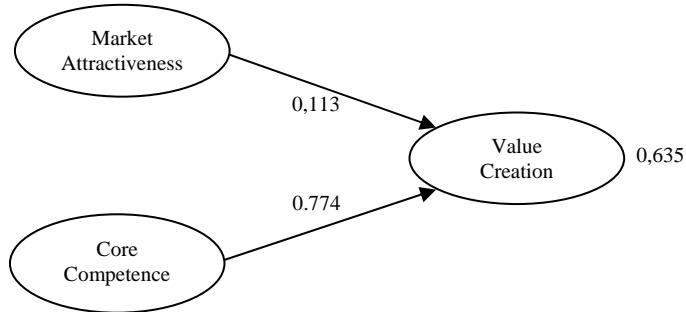
## **3. RESEARCH FINDINGS**

Verification analysis was designed to examine the influence of pay TV market attractiveness and the core competence on value creation and competitive advantage and their implications upon business performance by using multiple relationship model among variables, in which information is obtained simultaneously (Malhotra, 2004), so that the analysis techniques quantitatively uses structural equation modeling/SEM. Structural equation modeling (SEM) consists of two types namely covariance-based SEM is often called SEM (structural equation modeling) and variant-based SEM or a component that is often called PLS (partial least square). This statistical technique is used to verify the relationship among the research variable.

### **3.1 The influence of market attractiveness and core competence on value creation either partially or simultaneously. (Hypothesis 1)**

The relationship between Market Attractiveness and the value creation is 0.113; the T value obtained is 2.191, which is greater than 1.96, so that it was significant. The influence formed is  $0.113^2$  or 1.27%. The relationship between Core Competence and Value Creation is 0.774; the T value obtained is 20.647, which is greater than 1.96, so that it was significant. Influence formed is  $0.774^2$  or 59.9%.

The influence formed simultaneously by the Market Attractiveness and Core Competence on the Value Creation is 63.60%. The results of the above analysis prove that first hypothesis is accepted, that the market attractiveness and core competence influence value creation either partially or simultaneously.



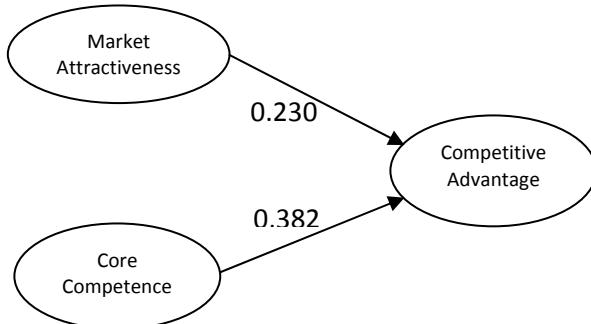
**Figure 1. The Influence of Market Attractiveness and Core Competence on Value Creation**

This is in line with the opinion of Cravens and Piercy (2009), which states that the market attractiveness can be measured by market growth rate projections and attractiveness assessments made by management, while Best (2000) argues that a more complete market attractiveness can be measured through market force, competitive intensity, and market access.

Companies must identify a suitable competence to create consumer value. Consumer value consists of benefits and cost. In this case Craven and Piercy (2009), emphasizes the management to be able to offer superior value to the consumer by using competence produce value match based on consumer needs (Ketchen, 2009; Knight, 1998 and Mooney, 2007).

### 3.2 The influence of Market Attractiveness and Core Competence on Competitive Advantage of Pay TV industry in Indonesia. (Hypothesis 2)

The relationship between market attractiveness and competitive Advantage is 0.230; the T value obtained is 4.341, which is greater than 1.96, so that it was significant. The influence formed is  $0.230^2$  or 7.36%. Relationship between core competence and competitive advantage is 0.382; the T value obtained is 6.077, which is greater than 1.96, so that it was significant. The influence formed is  $0.382^2$  or 14.60%.



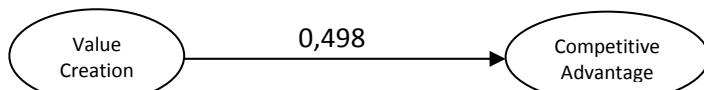
**Figure 2. The Influence of Market Attractiveness and Core Competence on Competitive Advantage**

The result of the above analysis proves that second hypothesis is accepted, that the market attractiveness and the core competence give influence to the competitive advantage. The results of the study support the statement of Dawid and Reimann (2010), that the market attractiveness and company primary resource (core competence) can be used as a basis of competitive advantage formulation (Kotler, 2012; Dalborg 1999; Markides and Williamson, 1994). Competitive advantage is formulated from the analysis of core competence and market attractiveness (Bani-Hani and Faleh, 2009; Slater and Narver, 1994; and Luo, 1998)

### 3.3 The influence of Value Creation on Competitive advantage of the Pay TV industry in Indonesia. (Hypothesis 3)

Relationship between value creation and competitive advantage is 0.498 the T value obtained is 8.384, which is greater than 1.96, so that it was significant. The influence formed is  $0.498^2$  or 24.80%.

The influence formed by value creation on competitive advantage through is 24.80%. This means that 24.80% of changes in the competitive advantage are affected by changes in market attractiveness and competence core through value creation. The remaining 75.20% is influenced by other factors beyond these variables. The results of the above analysis prove that third hypothesis is accepted, that the market attractiveness and the core competence give influence to competitive advantage either directly or through the value creation.



**Figure 3. The Influence of Market Attractiveness and Core Competence on Competitive Advantage through Value Creation**

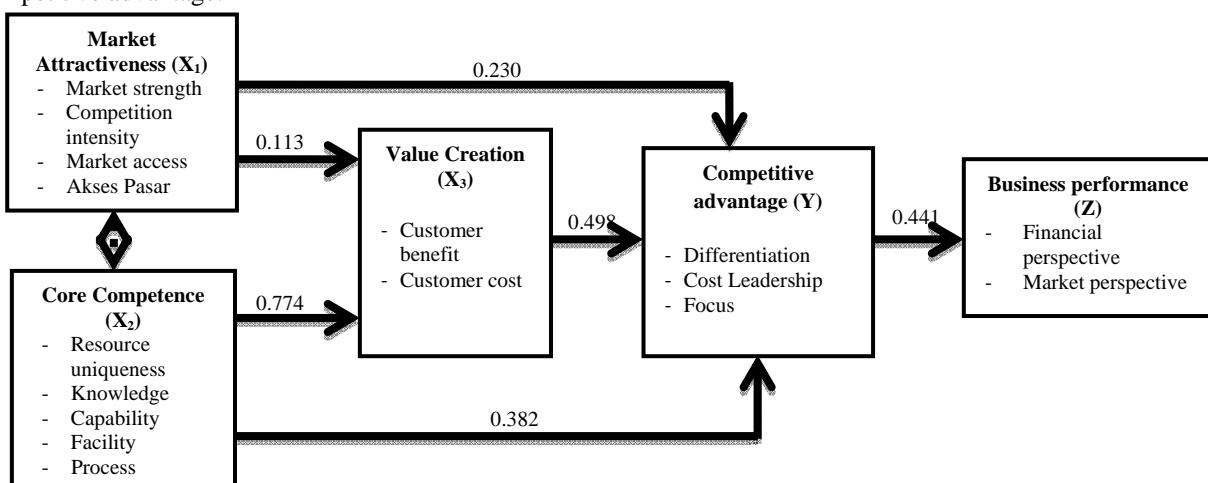
In pay TV industry, the value chain is very complex and requires a large capital investment so that giving the better value for the customers compared to other companies is needed to improve the competitiveness of the company. Relating to the creation of value, Hitt et al, (2009) explains the importance of creating value for customers, lowering costs in building customer value and establishing relatively favorable position to the competition (Sharma, 2001; Parasuraman 1997; and Huber and Hermann 2000 ).

This hypothesis is consistent with Pearce and Robinson (2005) theory which states that if in a situation where the company and its competitors have relatively the same resources, the company performance can be generated from the creation of customer value on the market perspective or market-based.

### 3.4 Influence of Competitive Advantage on Business Performance of pay TV industry in Indonesia. (Hypothesis 4)

Relationship between competitive advantage and business performance is 0.441; the T value obtained is 8.632, which is greater than 1.96, so that it was significant. The influence formed is  $0.441^2$  or 19.45%

The influence formed simultaneously by market attractiveness and core competence on competitive advantage through value creation and competitive advantage is 19.45%. This means that 19.45% of changes in the business performance is affected by changes in market attractiveness, competence core and value creation. The remaining 80.55% is influenced by other factors beyond these variables. The results of the above analysis prove that hypothesis 4 is accepted, that the market attractiveness and the core competence give influence to business performance either directly or through the value creation and competitive advantage.



**Figure 4. Influence of Market Attractiveness and Core Competence of the Company Performance through Value Creation and Competitive Advantage**

Formulation of competitive advantage which is properly implemented will improve business performance (Wheelen and Hunger, 2008; Kaplan and Norton, 1992; Sofyan, 2011; Venkatraman and Ramanujam, 2003; and Olovietta and

Friedman, 1999). Competitive advantage is an approach of organizations to compete for winning the competition, getting customers, generating power or creating value from resources or competence available and creating competitive advantage.

**Table 1. Relationship among Variables**

Hypothesis	Description	T-Val	Description
H1	Relationships between market attractiveness and value creation	2.191	Significant
	Relationships between market attractiveness on value creation	20.647	Significant
H2	Relationships between Market attractiveness and Competitive Advantage	4.341	Significant
	Relationships core competence and competitive advantage	6.077	Significant
H3	Relationships between Value Creation and business performance	8.384	Significant
H4	Relationship between Competitive Advantage and business performance	8.632	Significant

Sources: Research Findings, 2013

The company that uses differentiated strategies attempt to gain a competitive advantage based on the uniqueness of the offer. The company develops different goods and/or services from competitors. This strategy requires the power of marketing, research and development, leadership technology and high creativity. Success or failure of this strategy relies on the consumer value creation for the quality and uniqueness of the company's products.

This study uses three generic strategies of Porter, which company can use to win the competition in a sustainable manner, namely: 1) differentiation, which attempts to provide unique products and to give added value for customers, 2) cost leadership, which is the lower operating cost, so that the company is operating at a level of efficiency that is better than the competitors. 3) focus, which is an attempt to serve a particular niche market segment, so that the company can perform optimal service to specific markets or specific customer groups (market niche) (Schermerhorn, 2003).

#### 4. CONCLUSIONS

Based on the objectives and results of the study can be summarized as follows:

Market Attractiveness and core competence give influence to value creation. It proves conformance to the theory which states that the market attractiveness plays significant role in value creation. This can be explained because the market orientation will be obtained through accurate information on the market situation, market forces, the intensity of competition and the ease of market entry. The information in the future is needed in the determination of value creation and competitive advantage.

In terms of core competence influence to value creation, it is proved that the core competence is important in determining the success of value creation. Core competence plays a greater role than the attractiveness of the market in value creation. With core competence, company will have the ability to both value creation according to customer needs in the present and future. Furthermore, management can determine the competitive advantage which is needed to produce the expected performance of the company.

Value creation gives influence to competitive advantage. This proves the theory that the value creation gives influence to pay TV industry. Appropriate competitive advantage can be determined based on the company's ability to create value for customers and will be determined the right competitive strategy that will have an impact on business performance.

Competitive advantage gives influence to the business performance well. This proves that a strategic management theory state that performance highly depends on competitive applies to pay TV industry. Competitive advantage plays a role in determining the performance of the business. This is understandable because the competitive strategy determines the competitive advantage of the company. With the chosen competitive strategy capable of providing the advantages (benefits) are provided to customers than competitors.

Referring to result of this research, Pay TV Company is suggested some of the following:

1. Always monitoring changes in the pay TV market attractiveness and build core competence to be able to determine the appropriate competitive strategy is one among the cost leadership strategy, differentiation strategy or focus strategy.

2. Performing customer value creation process as basis for competitive advantage.
3. Performing efficiency throughout business processes chain to improve competitiveness.
4. Always innovating in finding potential new pay TV program.
5. Always improving service quality to increase customer loyalty.

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The ISCLO Conference 2014

## The Role of Consumer Psychology and Characteristics in Buying Decision Process of CDMA-Based Gadget

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### Abstract

*This research focuses its attention on empirical support for the role of consumer psychology and consumer characteristics in buying decision of code division multiple access (CDMA)-based gadget. Consumers' perspectives were collected using probability random sampling with 40 questionnaire items distributed to 400 respondents in Bandung, Indonesia, and it was proceeded by structural equation modeling.*

*In addition, this study was aimed to explain why consumers chose this product rather than other competitors. It was found that consumer psychology influenced consumer buying decision process by 55% and consumer characteristics influenced consumer buying decision process by 33%. Memory was the highest dimension in consumer psychology, i.e. 82%, while culture and social dimensions had the same value, i.e. 83% in consumer characteristics.*

*This finding along with the arguments of research contributions and suggestions for future research in academicians and practitioners are presented in this paper. The crucial implication of this research is the practitioners have to learn the organization for competitive advantage by focusing on the consumer self-concept and consumer lifestyle based on consumer psychology.*

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### Keywords

*Consumer Psychology, Consumer Characteristics, Buying Decision Process, Cdma-based gadget, Indonesia.*

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### 1. Introduction

Technological developments in Indonesia are currently experiencing rapid progress. From the point of view of the changes in technology, economics and culture make telecommunications in Indonesia an important factor in the economic development in general. In addition to the large population and significant economic growth will lead to higher demand for telecommunications services.

The development of telecommunication technology currently is offset by the development of mobile technologies which makes people follow the trend of changing gadgets. The trends have an impact on consumer lifestyle changes in using telecom operators to fulfill the needs or desires ([www.republika.co.id/berita/jurnalisme-warga](http://www.republika.co.id/berita/jurnalisme-warga), 2012).

Nowadays, the price of SIM card is getting cheaper so that most of consumers have more than one gadget. However, it varies inversely with SIM card-based cdma, one of which is Telkom Flexi from PT. Telkom Indonesia. Based on Telkom annual report (2012), Telkom Flexi has conducted promotional campaigns "Flexi-Free Talk" but there were no significant changes with the addition of consumers' numbers; if consumers of TelkomFlexi decrease, it will result in a loss to the company and will become a problem to be immediately fixed.

Table 1 Indonesia CDMA Consumer's 2010 – 2014

Telecommunication Operators	Years				
	2010	2011	2012	2013	2014
TelkomFlexi	18.1 million	14.2 million	16.8 million	11.6 million	4 million
Esia	11 million	14.7 million	11.6 million	11.7 million	12.3 million
Smartfren	-	7.55 million	11 million	12.5 million	15 million

(<http://statistik.kominfgo.id/site/data?idtree>, Oct 2014)

This paper discusses many factors that influence consumer behavior in choosing a product or service, including: consumer psychology and consumer characteristics (Kotler & Keller, 2012).

## 2. Conceptual Framework

### 2.1. Theoretical Concepts

Academic research gives support to the important role of marketing stimuli in building consumer behavior while consumer behavior has become one of indicators of success in consumers' purchase decision. Marketing managers need to consider consumer behavior in order to design effective marketing programs. An important behavior to be observed is purchase behavior, especially the motives and reasons behind this activity (Lysonski & Durvasula, 2013).

#### 2.1.1 Consumer psychology

Barber *et al.* (2012) had measured consumer psychographics to assess purchase intention and actual purchase. The empirical finding stated that there was a wide gap between the willingness to pay and the actual purchase. Sproles and Kendall (1986) in Lysonski and Durvasula (2013) believed that consumers' decision making were influenced by psychological or mental orientation. This statement was supported by Fill (2009) who declared that buying decisions are influenced by consumers' psychology.

#### 2.1.2. Consumer characteristics

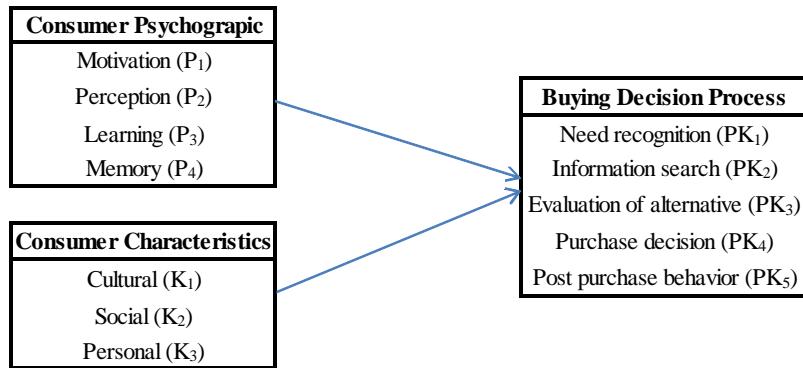
Josiassen *et al.* (2011) had done the research to clarify the influence of demographic consumer characteristics on buying intention. The study showed that consumer income, consumer gender, and consumer age were the antecedents of consumer ethnocentrism intervening the willingness to buy. On the other hand, Oliver and Lee (2010) argued that the intention to purchase was shaped by cultural and social factors. Fikry and Bustami (2009) indicated the impact of gender and product importance on decisions making. Thus, it can be concluded that consumer psychology and consumer characteristic play a role in consumers' buying decision process.

#### 2.1.3. Buying decision process

Hsieh *et al.* in 2004 reported an empirical research finding about the relationships between brand image and brand purchase behavior, taking into consideration socio demographics and national cultural characteristics as moderator variables between product-brand image and brand purchase behavior. Villas-Boas (2004) considered a model in which consumers learned about the product they bought in the first period, and then in the second period, they made choices/preferences about the competing products that had been given in the first period. Tsai (2005) described that repurchase intention behavior was influenced by the types of brand purchase value that were anteceded by the constructs of perceived image, emotional experience, perceived quality, and price acceptability.

#### 2.1.4. Research framework

The research framework in this study followed the Kotler's model of consumer behavior (2012: p.202) which states that consumer psychology and characteristics simultaneously and partially influence consumers' buying decision.



**Fig.1.** The research framework

## 2.2. Methodology and Data

A cross sectional survey was conducted for collecting primary data. The reason to use cross sectional study is because it was assumed that consumer behavior was relatively stable overtime so that there was little necessity to study the development of purchase behavior.

A Structural Equation Model requires a minimum sample size of 5-10 x items (Hair *et al.*, 2006). Primary data used were taken through simple random sampling technique by distributing 40 questionnaire items towards 400 respondents in Bandung, Indonesia. Respondents were taken from the customer data of Telkom Flexi – PT. Telkom Indonesia

## 2.3. Empirical Evidence

### 2.3.1. Overall model fit

H<sub>0</sub>: There is no difference between the theoretical model and the empirical findings.

H<sub>1</sub>: There is a difference between the theoretical model and the empirical findings.

The purpose of the testing is to accept H<sub>0</sub>, based on the fit index values that should be compared with the cut-off value (revenue limit). Table 4.1 indicated that the model has good fit value, means that there is no difference between the theoretical model and the empirical findings.

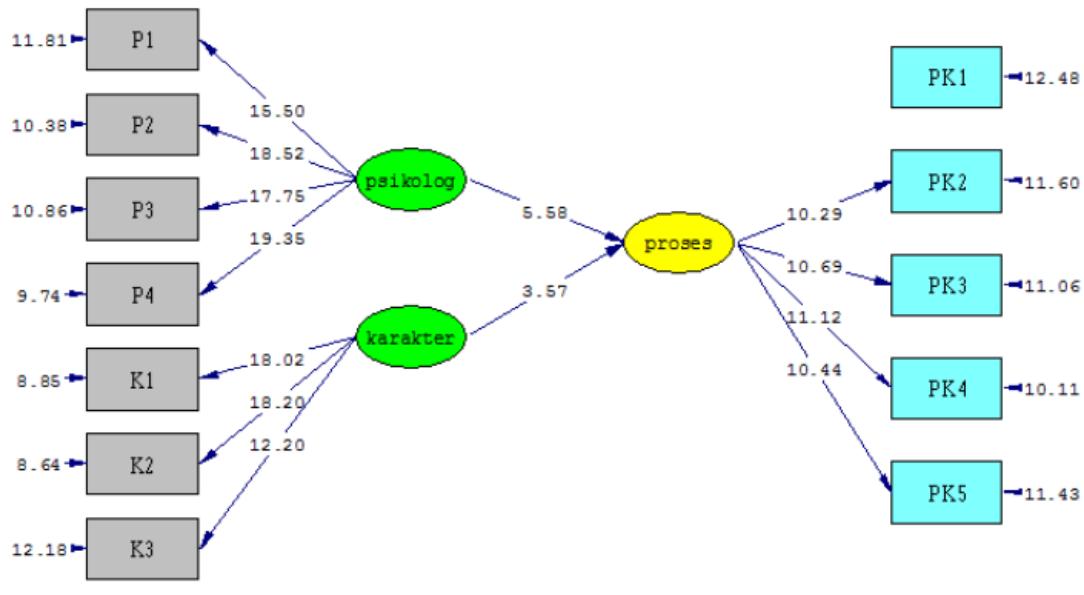
**Table 2** Goodness of Fit

No.	Kelompok	Jenis Ukuran GOF	Cut Off Value	Hasil Uji	Keterangan
1	<i>Absolute Fit</i>	<i>Chi-square</i> ( $\chi^2$ )	Semakin kecil, semakin baik $P \geq 0,05$	197,79 $P = 0,0$	<i>Marginal fit</i>
		GFI	$\geq 0,90$	0,92	<i>Good fit</i>
		RMSEA	$\leq 0,08$	0,089	<i>Good fit</i>
2	<i>Incremental Fit</i>	AGFI	$\geq 0,90$	0,87	<i>Poor fit</i>
		NFI	$\geq 0,90$	0,96	<i>Good fit</i>
		IFI	$\geq 0,90$	0,97	<i>Good fit</i>
		CFI	$\geq 0,90$	0,97	<i>Good fit</i>
3	<i>Parimonius Fit</i>	PNFI	0,6 – 0,9	0,74	<i>Good fit</i>
		PGFI	0 – 1,0	0,60	<i>Good fit</i>
		Normed Chi-square ( $\chi^2/df$ )	$\leq 5,0$	(197,79/51) = 3,87	<i>Good fit</i>

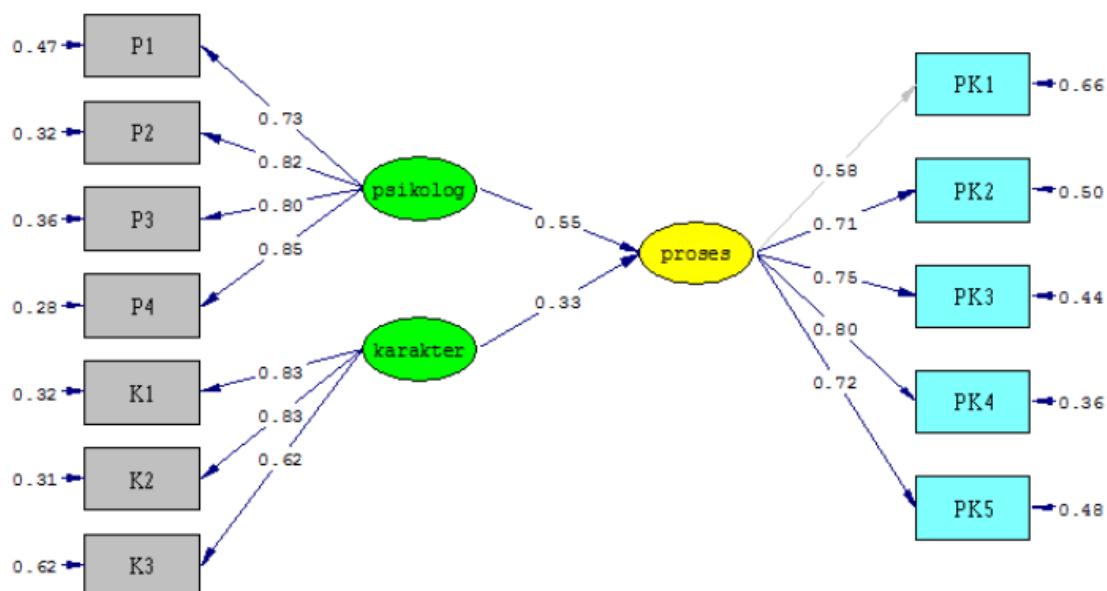
Sumber: Data olahan peneliti

### 2.3.2. Structural equation model

In the analysis of structural model analysis, T-value indicated that there is a relationship between endogenous latent variable and exogenous latent variable if the value is  $> 2$ .



**Fig.2.** T-value structural model



**Fig.3.** Model structural standardized solution

$H_1$ : Consumer psychology has a significant relationship with buying decision process.

Based on the empirical findings that can be seen in Figure 4.1 and Figure 4.2, it can be interpreted that  $H_1$  is accepted because the t-value obtained was 5.58 where the requirement applies  $t\text{-value} > 2$ . The estimated coefficient is 0.55 which means consumer psychology influenced buying decision process by 55%. Memory was the highest dimension in consumer psychology by 85%.

*H<sub>2</sub>: Consumer characteristics have a significant relationship with buying decision process.*

Figure 4.1 and Figure 4.2 show that  $H_2$  is accepted because the t-value obtained was 3.57 where the requirement applies  $t\text{-value} > 2$ . The estimated coefficient was of 0.33 which means consumers' psychology influenced their buying decision process by 33%. Culture and social have the same value, i.e. 83% in consumers' characteristics.

### 2.3.3. Analysis

According to the results of the data processing using the SEM it can be seen that consumer psychology (i.e. motivation, perception, learning and memory) and consumer characteristics (i.e. cultural, social, personal) are proved to have a significant impact on the buying decision process of Telkom Flexi.

Results of this study support the principle of Schiffman and Kanuk in Fredereca and Chairy (2010) which stated that consumer psychology provides the basic concepts of psychology that determine individuals' behavior and influence their purchasing behavior. In other words, Kotler and Keller (2012) indicated the task of the marketer is to understand what occurs in the consumer mind, between the arrival of the outside marketing stimuli and the final purchase decision.

Four important psychological processes: motivation, perception, learning and memory fundamentally affect consumer responses to various marketing stimuli, while the other three important characteristics are cultural, social, and personal

Consumer psychology influenced buying decision process by 55%. and consumer psychology influenced buying decision process by 33%, while the rest might be influenced by the others marketing stimuli, such as: products & services, price, distribution, communications, economic, technological, and political (Kottler & Keller, 2012).

Consumer psychology consists of motivation, perception, learning, and memory. Kottler & Keller (2012) believed that one of marketing missions is to make sure consumers have the right types of product and services to create the right brand knowledge structures and maintain them in memory. This statement supported the study result which confirmed that memory was the highest in consumer psychology.

Consumer characteristics consist of cultural, social, and personal. The result of the study indicated that personal factor was the lowest in the consumer characteristics, while cultural and social factor had the same value. This result is supported by Belch & Belch (2003) which declared that cultural factors (i.e. culture, sub culture, and social class) are particularly important influences on the consumer buying behavior. Culture is the fundamental determinant of consumers' attitude and behavior. On the other hand, social factors (i.e. reference groups, family, and social roles & statuses) affect consumers' buying behavior. In addition to social factors, the power of opinion leader in a social community played a major role in persuading activities.

The other result of (Nurbaiti, Putri, Eka, Novianty, 2007) consumer purchase behavior factors (i.e. cultural, social, psychological) indicated that social factors are what most influence the purchase decision (has a great influence) whilst the other factors (i.e. cultural, personal, psychological) do not significantly affect the purchasing decisions of TelkomFlexi (having little effect). Cultural, social, personal and psychological factors have a positive relationship and have ranged from the lowest influence to the greatest (0.2 - <0.7) and for the 54.6% influence on purchasing decisions of TelkomFlexi, social factors are the most significant in influencing the purchasing decisions of TelkomFlexi.

## 3. Conclusion and future research suggestion

### 3.1. Conclusion

Based on the examination of the study, it can be concluded that the consumer buying decision process which started from information search until post purchase behavior is influenced by consumer psychology and consumer characteristics. The highest influence comes from the consumer psychology which consists of motivation, perception, learning, and memory. It is found that memory has the highest role in the consumer psychology. It means that consumers will repurchase a product and service based on their memory and past experience.

Another factor that has a role in the consumer buying behavior is consumer characteristics which consist of cultural, social, and personal factors. It is known that cultural and social factor have the same role in the consumer characteristics. This phenomenon is obvious when there is a cultural and social dissemination in which consumers tend to follow it in buying decision.

TelkomFlexi must have innovation like Esia and SmartFren. The other company (SmartFren) make collaborations (with HTC, Hisense, ZTE, Innos, and Huawei) and now SmartFren and Lenovo will work together to make CDMA phone bundling. SmartFren knows what consumers need because they see opportunities among Indonesian consumers based on social status, cheap voice call and Internet data. Thus, Smartfren has Andromax and always updates the hardware and software gadgets to meet social and psychological needs of the Indonesian consumers, proven and growing number of consumers from 2011 to 2014.

### 3.2. Future research suggestions

For further research, there are two types of research that can be done. Firstly, to conduct another similar kind of this research model for GSM (global system for mobile communications)-based gadget and then compare it with this research model that had examined cdma-based gadget.

Secondly, to study other marketing stimuli that influence consumer buying behavior, such as: products & services, price, distribution, communications, economic, technological, and political.

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# Toward ASEAN Economic Community 2015

The Concept of ASEAN' – L A W - Harmonization

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## Abstract

Nowadays, the comprehensive development has become an urgent priority for ASEAN countries to advance the implementation of the regional integration under the World Trade Organization (WTO) regime. ASEAN Free Trade Area (AFTA) is one of the geographical market integrations aimed to increase national economy and reduce the transnational barriers to trade. Since January 01, 2010 the AFTA-China has entered into force in the ASEAN region and China, where ASEAN countries (mainly six ASEAN countries Brunei, Indonesia, Malaysia, Philippines, Singapore, and Thailand) are committed to implementing liberalization on trade with China.

Following the progress mentioned above, a number of cooperation among ASEAN countries has to be escalated in the field of economic advancement such as infrastructure, industry and trade. The development regarding that, *inter alia*, regulations support the purposes, legal instruments facilitating real sector, and enabling more swiftly towards attaining the objectives of the community. The consequences that might arise with the existence of a free trade area (AFTA) are the need of advanced regulations, whereas the existence of policies that can provide more space for ASEAN' entities to organize and capitalize the market economic Is required.

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**Keywords:** ASEAN, International Expansion, Economic Integration

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## I. Background

The 15th ASEAN Summit officially closed on Sunday 25 October, 2009 at Hua Hin, Thailand. The Prime Minister of Thailand Abhisit Vejjajiva warned that six years before the establishment of the ASEAN community by 2015 [1], “*all ten leaders of ASEAN countries have to work hard to realize ASEAN community*” as a means to achieve prosperity, welfare, harmony and peace in the life of the nations in ASEAN region.

With a large of FDI flow (this is also supported by FDI trends from year to year [2], it is indispensable to prepare the regulatory instruments that can provide and support businesses in ASEAN to conduct economic activities in this region. One of them is in the field of economics; there is a need for the existence of policies that can provide more space for corporations in ASEAN to organize and to manage the market with large capital.

However, the fact that most of the member countries of ASEAN are developing countries is not an obstacle depriving the implementation of this concept, since so many ASEAN countries are potentially big-producers of natural resources. Additionally, corporations and the ASEAN's market are supported with increasingly economic growth and stable political condition [2], as a result, it will facilitate the implementation of the economic integration in the area.

Several of industries in the ASEAN region that are undergoing a positive development [2] today is telecommunications, banking, agriculture, transportation, manufacturing, and industries. These are great opportunities for the development of a common regulation that allows the flow of these industries to be traded within the ASEAN region, thereby expanding the gain of value and efficiency can be expected.

The harmonization of law is an opportunity that can be implemented allowing the five free flows' functions [3] of ASEAN countries; goods, services, Investments, capital, and skilled labor. European Union implemented four freedoms [4] (EC treaty). The ultimate goal of this is to analyze how the integration of ASEAN law concept would be implemented in the ASEAN region, which will benefit the development of regulation. The importance of regulation on economic sector, such as

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the implementation of cross-border mergers and acquisition [5], corporation, other related with its derivative processes in ASEAN as an anticipatory step to welcome the development of the above mentioned facts.

The concept of ASEAN's Law harmonization is a concept that becomes the basis to make an analysis of the implementation of the development of the ASEAN region. This concept is a very important basis for the regulation in the economic sector, especially in supporting the implementation of 'ASEAN Community by 2015', whereas it has been implemented in the European region since 2005 underlying their achievement on economic perspective.

## 2. The Case

AFTA is a key to perform regionalism in ASEAN; further, it apparently becomes the fundamental issue, prior to the basic description and the explanation of what it does entail. It is important to note that the presence of AFTA in global trading systems [4] should be complied with WTO standards. Therefore, the compliance of AFTA with the underlying agreement of world trade (and GATT) must have been taken into consideration.

To determine the compliance of regional integration with the multilateral trading system, AFTA should be compatible with the mechanism of article XXIV of GATT [6]. Several issues might appear with regard to the position of AFTA claiming the significant relaxation of the creation of the free trade area among developing countries, and also the flexibility granted in observing the general requirements for an economic integration. Concerning Singapore, which is a member of ASEAN categorized as economically developed, it is arguable. However, according to some journals, there seems to be no ground for exempting ASEAN members (AFTA regionalism) from compatibility with article XXIV GATT [6].

The purpose of AFTA as regionalism in ASEAN is to heighten economic liberalization. Unlike European Union, which originated as an inward-looking approach to regionalism [3, 7], ASEAN integration is principally fitted toward open regionalism [6]. Since it is given that the significant counter-parts are outside ASEAN region [6], the nature of AFTA is ambitious, regarding various commitments undertaken by ASEAN Leaders in order to complement the creation of the AFTA with other shapes of integration. Correspondently, regional cooperation to promote international trade without discrimination against outsiders is in a path way consistent with GATT.

ASEAN economic community as specified in the ASEAN Vision 2020 will establish a single market and production base in ASEAN. The strategies toward the integration, *inter alia*, are as laid down in ASEAN's Blueprint [3]:

- *Institute new mechanisms and measures to strengthen the implementation of its existing economic initiatives, including the ASEAN Free Trade Area (AFTA), ASEAN Framework Agreement on Services (AFAS) and ASEAN Investment Area (AIA);*
- *Accelerate regional integration in the priority sectors;*
- *Facilitate movement of business persons, skilled labor and talents; and*
- *Strengthen the institutional mechanisms of ASEAN, including the improvement of the existing ASEAN Dispute Settlement Mechanism to ensure expeditious and legally binding resolution of any economic dispute.*

Concerning the strategies above, it seems that ASEAN's Leaders are taking the gravity in realizing the goal of the AEC. Nevertheless, conforming to several analyses conducted by economists, what type the AEC will obtain is still a doubt [3], given the fact that ASEAN community which comprehends some elements of a common market (facilitate the five free of flow of ASEAN), it omits a common external tariff. Consequently, as ASEAN economic community is an open regionalism (unlike European community), ASEAN should immediately find an appropriate form related with the approach it has been taken.

To ensure the progression towards appreciating ASEAN economic community, the overall strategies involve intensifying and widening the integration of economy, for instance, products, markets, and every related aspect as mentioned in three major areas of integration [3]; "trade in goods and services, investment, and skilled labor".

The following is the progress of economic activities that occurred in some ASEAN countries during the year 2013:

The Indonesian economy [8] maintained its resilience in enduring the global economic crisis during 2009, due to the economy's lack of export exposure, and this condition is considered the Gross Domestic Product (GDP) growth of 4.2%. During the second half of 2013, there were 248 deals of economic integration (business integration), which are mainly in Energy and Mining, Consumer and Industrial Products, Telecommunication, and Financial services, with a total estimated value of US\$ 9.7 billion. The outlook for 2014, Indonesia has estimated an economic growth of 6% with respect to the alternations of world oil prices and the enactment of ASEAN-China Free Trade Association (ACFTA).

The Malaysian economy [9] shows growth by 3% in the fourth quarter of 2013, after catching 3.9% in the second quarter and 2.2% in the third quarter. This condition is caused by investors' premonition to make new investments in 2009 following the uncertain economic and financial climate. On the other hand, Malaysia also faces a strong competition from other rising economies (other ASEAN countries) such as Indonesia, Vietnam, and Philippines. The total value of business integration deals during 2013 declined by 16% to US\$ 7.2 billion. Sectors that participated greatly in 2013 were the telecommunications, petrochemicals, power, financial services, and property, whereas the M&As deals were spread across

both domestic and Cross-Border. Malaysia's market for economy is expected to be more active in the year 2013 backed by improving essential indicators such as a recovering economy and financial markets, carrying much needed confidence to the investment community.

In the Philippines, the economy [10] in 2013 was marked by the enhancement of its national GDP at 1.6%. This condition is supported by the lengthy raised level of government spending. In 2013, there were 152 deals of business integration with the total value of US\$ 4.6 billion in the Energy and Power, Consumer Staples, and Telecommunication sectors. Since the political landscape in 2015 will be dominated by the May Presidential elections, M&As deals would be projected into the first quarter, and during the second quarter investors will be very cautious waiting for the election results. Regardless of that issue, trade levels in 2014 were expected to increase significantly as a consequence of the ACFTA with China, whereas China and Philippines have an agreement of the minimization of duties to zero for more than 6,000 trading items.

The Singaporean economy [11] in 2013 has contracted by 3% following the decline of its GDP of 2.8%. This condition is motivated by the effect of the global and financial crisis which is the worst ever recession that has ever attacked the country. The total value of the announced business combination activities in 2013 are US\$ 22.7 billion covering 608 deals. Most of them in Singapore are conducted as Cross-Border M&As involving foreign investor, such as from the United Arab Emirates (UEA), US, China, EU, and UK spreading in many areas of industries (Manufacturing, Shipping, Services, Telecommunications, and Power). Singapore's outlook for 2014 will be closely linked to regional and global economic and credit conditions, whereas many deals are likely to rise with the increasing quantity of buyout transactions.

In Thailand, the economy [12] in 2013 has started to enhance with favorable signs being disclosed in the level of both exports and domestic consumption, in which the GDP index was 2.7% and Economy growth to 3% during the year. The manufacturing sector expanded as the number of sales orders raised in line with the improvement in the domestic economies. Business combination activities in the second half of 2013 picked up to US\$ 3.5 billion. Cross-Border M&As deals were conducted with foreign investors from Outside ASEAN (UEA, Japan, US, EU) and Intra ASEAN (Malaysia, Singapore) in several sectors such as, Energy, Mining, Financial Service (Bank), Telecommunications, Hospital, and Power. Economic growth for the 2014 outlook is projected to continue and coincides with the governments spending through a number of stimulus packages, such as Mass Rapid Development project, private sector expenditure, and trade liberalization under ACFTA. According to 2013 Foreign Investor Confidence Survey Report, despite the unfavorable global economic climate, most investors will maintain their level of investment in Thailand. However, this condition is still vulnerable to a number of risk factors including political uncertainty and government instability.

In Vietnam, the economy [13] in 2013 marked an annual rate of GDP growth that reached 6.3%, inflation rate 6.3%; it was the lowest rate in the last six years. The ongoing trade deficit, the decline of export and import has put Vietnam under pressure during the year. Business activities show the strong volume in the second half of 2013 acted by foreign investors, in particular by Asian Investors (China, Taiwan, Japan, Korea, Singapore, Malaysia) manifesting growing confidence among international companies. Notable deals announced during the year include financial services (Insurance and Banking), Manufacturing, Property, IT, Telecommunications, and Hotels. Vietnam's government announced the outlook for GDP rate at 6% in 2013, since fundamental factors easing macroeconomic growth have not been excessively affected by the current crisis. Therefore, Vietnam expects continued growth in economic activities with deals between domestic companies that will accelerate Vietnamese corporations look for target to invest their surplus cash. The important government initiative that may have the considerable impact on the M&As activities are the expected consolidation of various state owned Enterprises due to the need to rationalize an operation and improve exportation competitiveness.

Therefore, the potential derive from the above mentioned progress should be anticipated through the development of a comprehensive harmonization of ASEAN law to facilitate its entities to have an access and opportunities to grow. ASEAN through its formal part may create such an 'integrated conduct' and 'harmonized rule' in order to spread its potential prosperity throughout the region. Otherwise, the ASEAN' framework of AIA and AEC may become an open clause with no further determination of ASEAN integration purposes.

### **3. Analysis and Proposed Problem Solving**

The ASEAN framework in economic cooperation through AEC remains essential in order to build the regional economy integration, which is based on the concentration of interests of ASEAN countries through existing and new initiatives in compliance with the principles of an open, outward-looking, inclusive, and market-driven economy [3]. The principles are intended to attract foreign investors and reinforce ASEAN competitiveness.

Economic and business activities are accelerated rapidly, remarkably in the region in which FDI flows tend to rise, such as in Intra-ASEAN region [3]. With the expanding of FDI flows from investors (foreign and intra ASEAN), the movement for the occurrence of business deal across the region is a necessity, considering that 80% of FDI flows in ASEAN are acquitted through business combination practices, instead of green field investments. It is the opportunity for ASEAN to leverage its economic ability.

This condition requires improvement of regulations and mechanisms in relation to business activities in the region. Despite their increasing prevalence and sophistication, business entities actions remain difficult, and may be getting even harder than in the past [14]. Further, it is subject to heightened investors scrutiny and wariness, and impeded by the differences in valuation criteria (corporate valuation), securities regulations, competition laws, corporate laws, and tax laws [15]. Therefore, the harmonization of particular regulations related with economic activities within the region became significantly important.

By coming together, ASEAN's economies have grown much stronger [16]; the region's world-beating economic growth owes much to its success in developing the intricate web of regional supply chains and production networks often known as "Factory Asia." This exceptional crossborder collaboration involves shipments of both raw materials and manufacturing parts and components that crisscross the region, along with foreign investment and—increasingly—businesspeople, managers, and other skilled workers. This emerging Asian regionalism offers a new platform for the economic development that is, as the predecessor to this report, emerging Asian Regionalism: A Partnership for shared prosperity put it, "good for individual economies, good for Asia, and good for the world." This remarkable achievement now needs entrenching and extending—as it is already starting to happen. Interdependence is deepening. Cross-border trade in parts and components continues to rise, as economies such as Vietnam—like the People's Republic of China (PRC) before them—has developed manufacturing assembly operations and connected up with regional supply chains. This intraregional trade in intermediate goods is increasingly supplemented by trade in final goods too, as consumption growth accelerates. Foreign direct investment flows within Asia are also rising fast.

ASEAN countries will also have to work together effectively. That demands norms, rules, and understandings about how to proceed, as well as regional organizations to coordinate governments' actions. In short, it requires **institutions for regional integration** (IRIs) [17]. Institutions can be defined in several ways. In the broadest sense, academics conceive of institutions as durable rules that shape expectations, interests, and behavior. These range from formal obligations to informal norms and understandings of what constitutes acceptable behavior.

Institutions type as arrangements and organizations range from ad hoc and informal forums that lack an organizational core to formal standing bodies that serve a particular purpose. The focus is on institutions for the regional integration in ASEAN—organizations involved in the regional economic integration and cooperation, whose mandate may also extend to non-economic issues [3]. Typically, the principals or contracting parties of these institutions are national governments, although non-governmental organizations and other non-state actors may also participate in their work and help shape their agenda.

Thus, ASEAN's regional architecture is both complex and light at the same time: it has a dense and elaborate web of sometimes overlapping institutional arrangements which tend to center on negotiations among national governments rather than delegating authority to regional bodies or engaging civil society. ASEAN's IRIs involves cooperation in specific fields among national governments that retain their sovereignty, rather than the creation and operation of bodies or authorities transcending those sovereign states.

ASEAN's IRIs emphasize flexibility, informality, and consensus: they can be thought of as confidence-building exercises which aim to create an environment conducive to building trust and, on that basis, progressive integration. ASEAN has adopted this approach for good reasons. In such a vast and diverse region, defining common structures and governance rules requires flexibility and pragmatism. Several ASEAN countries are postcolonial societies that attach special values to their national sovereignty, limiting the appeal of pursuing a regional agenda that requires compromising national priorities. Given the region's complicated history and cultural and social mix, ASEAN countries are usually unwilling to criticize their neighbors [17] —or to tolerate criticism from them—limiting the capacity for adopting sanctions or even setting up feedback mechanisms based on objective performance indicators.

For all these reasons, efforts to regularize relations and build regional institutions have concentrated on ongoing interaction among governments within project-specific and network-oriented arrangements, framed in a manner that does not threaten sovereign prerogatives. This approach—sometimes referred to as the "ASEAN way" after the institution that pioneered it—has been important for cultivating the confidence and trust needed to build support for a deeper cooperation and integration. It has successfully reconciled the values that countries and their residents attach to national sovereignty with the need for common rules and regulatory standards—and governance thereof—to support Asia's integrating markets

#### 4. Conclusion

The purpose of AFTA as regionalism in ASEAN would enhance economic liberalization by way of ASEAN economic community and framework Agreement on ASEAN Investment Area. Nevertheless, the fact is that it is different from the European Union, which started as an inward-looking approach to regionalism; ASEAN integration is primarily equipped toward open regionalism, given that the significant counter-parts of economy exist outside the region. To enhance ASEAN's competitiveness in fascinating foreign direct investment, ASEAN introduces a new mechanism, a free investment, outward-looking, comprehensive, and market-driven economy. It is confirmed that ASEAN, recently, continues to position itself as a Center for global investment and trade and remains on the radar screen for FDI among investors.

Business combination and other economic activities can be convenient, and unlike most other initiatives (green-field projects and direct sale through export), foreign investors with sufficient resources can be assembled to contribute to the long-term goals of enlarging competition. Foreign participation (from ASEAN countries), in which they will conduct business in other ASEAN' countries, could be more advantageous in obtaining productivity and competitiveness, the areas in which domestic companies might not have adequate resources to attain the same goals. In this regard, ASEAN countries behave to have been successful in attracting capital into committed sectors through the appearance of combination rules (integration rules), in which ASEAN members have played a significant role.

It is inevitable that the European Union became a barometer for others. Within the framework of European Community (EC), many of the regional operations and harmonization have been made to contain the sector of education and culture, enterprise and industry, competition regulation, health and consumers, environment, and other important sectors. In the economic sector, EU has promoted many directives in order to harmonize and modernize the dissimilarity of member countries' laws. Further, EU also facilitated European entities (companies or individual) to conduct their business across the national border within the region through the enactment of the 10th directive concerning cross-border mergers of limited liability companies. This condition certainly creates more advantages and increasing their competitive position.

The growth of FDI flows in Intra-ASEAN and the condition in which regulations concerning economic (and business) is insufficient in order to facilitate ASEAN entities (companies) to collaborate and restructure themselves across borders in the region, would make ASEAN less competitive, and in addition it will not be in line with the recent progress of economy cooperation that ASEAN has achieved. The 10th directive concerning cross border merger in EU is a leading edge regulation that will facilitate ASEAN entities in this circumstance. Basically, it responds to strong demands from businesses and enables them to support the economic growth in the region. Therefore, by enabling the entities (ASEAN) to conduct businesses across the region would give more advantages to ASEAN entities to operate their business; for instance, it will reduce difficulties and costs that arise from the complexity of the procedure and administrative regulations under the difference of national laws.

Those above exposures make the harmonization of ASEAN' Laws become more important, as ASEAN's economies continue to open and integrate, for them to have accesses to the emergency credit lines. This too is something that is appropriately organized at the regional level, and also requires strengthened surveillance of national policies, possibly together with policy conditionality, so that external parties are willing to extend credits. More elaborate institutional arrangements, not limited to consensus decision-making and involving binding commitments and a greater degree of delegation, may be needed to carry out all of these tasks adequately.

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The ISCLO Conference 2014

## Knowledge Management on the Performance of Coffee Processing Company in Indonesia: A Review of Selected Studies

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### Abstract

The objective of this paper is to review some researches on knowledge management, industry environment as well as cooperative and competitive strategies that influence the performance of coffee processing company in Indonesia. This review is expected to provide benefits for related researches in the future. This study consists of systematic reviews of 50 empirical scientific papers in regard to knowledge management, industry environment, and cooperative and competitive strategies that influence the performance of coffee processing company in Indonesia. The implementation, perception and transfer of knowledge management have been well researched previously, but its identification, storage and utilization are needed to be studied further. Given the importance of the existence of coffee processing company in Indonesia, the application of knowledge management has to be prioritized by the concerned companies in order to accelerate their competitive advantages. This paper provides a better understanding on how to develop good knowledge management application, industry environment as well as strengthen the cooperative and competitive strategies specifically in coffee processing company. This paper only reviewed concerned articles from ProQuest. The result of this study is believed to give worth understanding about actual situation in this field of research. It proposed some notions that will stimulate more intensive researches in this field in the future. However, there are no systematic literatures in academic journal that cover all the topics discussed in this paper.

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**Keywords:** Knowledge Management, coffee industry, industry environment, performance, competitiveness acceleration

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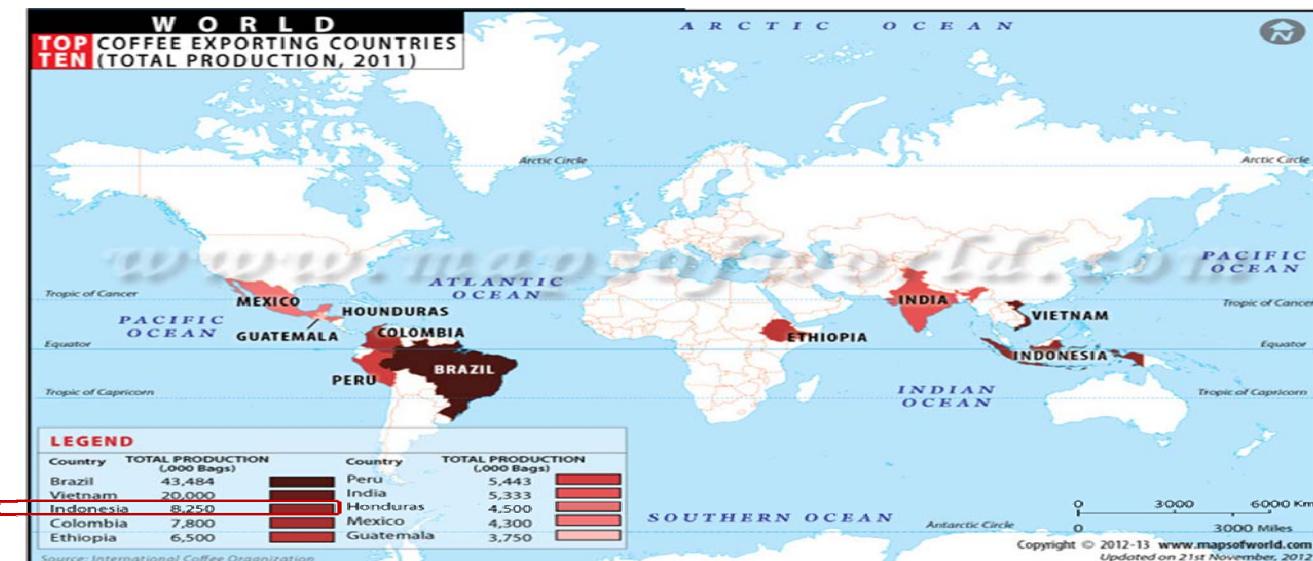
### 1. Introduction

Coffee ranks as the first most traded commodity in the world, outperform oil, with total sales of US \$9 billion during 1999 and 2006. As a commodity coffee create new jobs for about 25 million people, filling about 400 billion cups each year with about 40 percent of the world's population is believed to consume coffee regularly (Kaplinsky, 2005). About 25 million families who derive their main income from this commodity are settled in developing countries (Potts, 2008). Coffee production and its trading have an important role in most of families' life, even though the price had ever been drop in 1989 following the collapsed International Coffee Agreement (ICA). The decline in price at that time is known as the biggest-ever coffee crisis in this world.

Before the crisis, the price was managed by International Coffee Organization (ICO) through ICA that ensuring the price stability for farmers. But lately, the burst of coffee crisis turn it into a financial and social crisis among them (Wolni & Zeller, 2007). A number of labeling schemes arose to fix the problems regarding the low price of coffee commodity. Those schemes intended to correct the market failure of attribute value (consumer health, environmental protection, and social

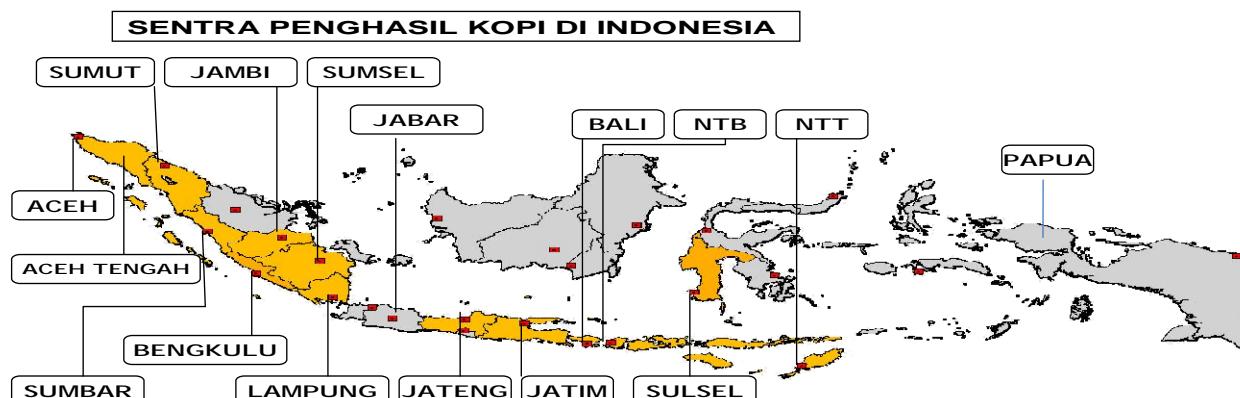
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welfare) that related to coffee production (Giovanucci, 2008). Those schemes are depended on certification and verification of third party to ensure the integrity of all supply chain. The first scheme is Fair Trade, Organic, Shade-grown, Rainforest Alliance, Bird Friendly, and Utz Kapeh. The coffee which is grown under this scheme collectively is called as “sustainable coffee” (Lewin et al., 2004). According to Giovanucci (2008), the certified coffee of 4 percents of global exported green coffee or more than 22.000 metric tons in 2006 represent the export value (FOB/free on board) of about US \$330 million. However, there are some inconsistencies in the estimated growth rate of certified organic coffee. Moreover the number of countries that are in top ranks as the world's coffee producers to begin more varied and competing to each other, as shown in the picture below.



**Figure 1.** World map of five largest coffee processing countries in the world

The map above show the countries with the best coffee processing in the world, where Indonesia ranked as the third after Brazil and Vietnam. It means that Indonesia is the third-biggest country that produce coffee in the world. In addition, Indonesia is the second-biggest country that produce robusta coffee after Vietnam. Thus, coffee is one of commodities that has a significant contribution for the national economy. Besides as a strategic commodity trading, coffee also has an important role as the source of foreign exchange, employment provider and the source of farmers' income or other economic actors whom are involved both on-farm or off-farm. Coffee processing companies also provide more jobs for more than 2 million families in Indonesia and a decent income for them. Those companies are able to employ more than 16 people from production, processing to marketing of the commodity. Coffee is a leading export commodity for Indonesia and become one of main commodities of its Trading Ministry besides palm oil, rubber, shrimp and textile. The spreading of coffee processing in Indonesia shows a satisfactory figure (Kemendag, 2014). The majority of coffee plantations (more than 90%) in Indonesia are cultivated by smallholders (farmers) and are spread in almost part of Indonesia, as shown by figure below.



**Figure 2.** Coffee production center in Indonesia

In relation to the development of the coffee processing companies, Knowledge Management (hereinafter abbreviated as KM), is meaningful and strategic for an organization (Soo et al, 2002). KM also play an important role as a dynamic dialectical element of various activities which are developed and experienced by organization. KM also extends significant contributions as the capitals for all of organization's members. The objective is to build organizational capacity through knowledge sharing interactions among organization's members in order to create the same deals. Thus finally it will create knowledge conversion from tacit to explicit, vice versa, fundamentally and sustainably (Nonaka & Takeuchi, 1995). KM in an organization also plays an important role in facing the challenges of complexity and the business environment turbulence in any sector. Business people, business entrepreneurs and even business units from small to large scale have to understand KM. This becomes one of the important issues that should be considered in order to keep the competition on track and to sustain good industry. A Competitive advantage is essentially derived from the value of a knowledge that is created for their customer's outweigh the costs they spent for creating that value (Porter, 1990). Furthermore, KM is the essence of an innovation and competition. One indicator of the occurrence of excellence strategy process in an organization is the knowledge and innovation those are generated in harmony by not rule out a thriving business environment.

The business environment is strongly associated with a sustainable innovation. It takes serious concern for an organization's future, anticipating market changes, technology, competition and the presence of other products and services. Search results of some scientific reference studies on strategy and organizational performance tend to be expressed in the form of internal resource base of KM as a competitive advantage, which includes valuable, rare, difficult to imitate and hard to replace resources. Based on that view, some experts assess that KM is the most strategic resource that is owned by the company (Nonaka & Takeuchi, 1995; Tuomi 1999; Probst et al. 2000). Moreover, Sharkie (2003) state that the ability to manage KM is a management function that enables organizations to explore and develop sources of competitive advantage compared to its competitors, as well as creating a uniqueness that contributed to its successful in the future. The objects in this study are coffee processing companies in Indonesia, potential plantation commodities that are exported to the world market. This export commodity needs a well-managed knowledge commodity since it is leading commodity that is compete in a tight competitive industry environment. This is indicated by a decrease in the number of companies engaged in the manufacturing of coffee, a decrease in the amount of coffee cooperatives in Indonesia and low growth in milk production in the last ten years.

In the upstream sector, the coffee crop land in Indonesia has recently reached 1.3 million ha with production about 748 thousand tons in 2012. The productivity of coffee plants in Indonesia reach about 700 kg beans/ha/year for Robusta and 800 kg beans/ha/year for Arabica. While neighboring countries such as Vietnam has reached 1,542 kg/ha/year. The share of raw materials production of Indonesian coffee in the world in 2012 is still about 9% compared to Brazil (35%) and Vietnam (15%). The productivity and land is still can be improved, considering that Indonesia is a tropical country that is suitable for the coffee plantations. As a tropical country, Indonesia also has the potential for the development of specialty coffee products in accordance with a distinctive flavor based on its geographical indications such as Lampung coffee, Mandailing coffee(North Sumatra), Gayo Coffee (Aceh), Java Coffee (Java), Java Preanger Coffee (West Java), Kintamani Coffee (Bali), Toraja Coffee (South Sulawesi), Bajawa Coffee (NTT), Wamena Coffee (Papua) and Luwak Coffe. Besides the increasing demand, there are several external factors and internal factors that lead to higher imports of coffee. From the external side, the demands for the deletion of ratio policy or BUSEP (Instruction No. 4/1998), the import tariff reduction commitments (GATT/WTO, APEC, AFTA) consistently and continuously and the jargonize of white revolution by coffee exporting countries in the world, has encouraged changes in the use of raw materials by concerned industries from local materials to import materials which is relatively cheap. From internal side, Indonesian coffee producers, who are mostly (90%) farmers and are members of coffee cooperatives, have lower production capacity so that cannot compete with imported coffee. In recent decades there is an excess on supply of Luwak Coffee in the world market that leads to the fluctuation of its prices. Meanwhile, the increasing volume of exports and regular domestic consumption is not as big as the increasing of its production so that the Indonesian market in the world tends to decrease.

The concept of KM as a focus of knowledge has been developed and became the focus of many organizations since 1995. Many organizations grapple with information overload. KM is becoming increasingly inseparable from the business function for many organizations as they realize that the competitiveness hinges is the effective management of intellectual resources (Grover and Davenport, 2001). KM information systems have been aware of the existence of knowledge creation, knowledge acquisition and knowledge sharing, but have not yet focused their attention to protect and secure the knowledge. The protection of knowledge has received little attention in the literature (Liebeskind, 1996; Bloodgood and Salisbury, 2001). Asllani and Luthans (2003) conducted a survey to 307 knowledge managers about their job roles and find evidence

that there is little or no security issues in their work, their main role is focused on communication within the organization. King et al. (2002) conducted a survey to 2,073 practitioners in KM using a three-stage Delphi study approach and find that the security problems associated with knowledge only ranked tenth among the respondents. If knowledge is decided to be the most important resource for the company, then obviously the need to secure existing resources should be the primary responsibility. Most of the delay in dealing with security management of knowledge is due to the misconception of securing knowledge which is considered the same as securing data and information. If the knowledge is a power and a source of competitive advantage (Salisbury, 2003), it is necessary to put special attention on it to ensure the sustainability and the repository of knowledge in the company to secure its core assets. Managing data, information and knowledge within the organization and use it to gain a competitive advantage in an organization has evolved in the field of KM. KM basically consists of processes and tools to capture and share data as well as using the knowledge of individuals within an organization effectively. The last decade has witnessed an explosion of information generated in the company because of the increased use of technology. The utilization of information and knowledge which is stored in the data warehouse is one of the methods to achieve the advanced industrial performance (Matusik and Hill, 1998). Companies that develop and utilize knowledge resources achieve greater success than companies that depend more on intangible resources (Autio *et al.*, 2000).

The following section will begin with an overview of the development of knowledge and then followed by an explanation of the emergence of knowledge-based view. The core of knowledge-based view has to be understood to appreciate the value of knowledge for the company. Since 2001, McAdam and Reid, said that KM is created and developed in large organizations to be applied in other types of community-based businesses, such as small and medium enterprises. But the question is, whether KM received full attention from other actors in small and medium enterprises?. Moved from that question, this paper would like to see more if it also takes place in a different business unit. Therefore, the unit of analysis in this paper is a coffee processing company in Indonesia. The purpose of this paper is to examine the problems and learn what had happened with KM in the coffee processing company in Indonesia in the last ten years. This will help highlighting the current understanding of this topic and identify the existing gaps. In some literatures which are reviewed by authors, a variety of different approaches of KM are continue to grow, as research conducted by Wong and Aspinwall, 2004; Egbu *et al.*, 2005; Hutchinson and Quintas, 2008. Nevertheless, it is true as asserted by Beesley and Cooper (2008) that a uniform definition of KM building is poor. Studies of KM has tended to focus on the processes and structures within the organization, such as transfer of knowledge from tacit to explicit, culture and organizational learning, and technologies for the storage and sharing of knowledge in order to improve productivity and sales, reduce costs, or improve innovation and quality (Kluge *et al.*, 2001; Quintas, 2002; O'Dell, 2003; Edvardsson, 2011; Jashapara, 2011).

To explore existing literatures, this paper defines KM as a process and structure that is available in coffee processing company in Indonesia to support a wide range knowledge of different processes, such as transfer, storage and creation. Actually, companies have to find ways to manage these aspects in a balanced manner, which presents particular challenges for small companies because they usually lack of resources needed to produce full utilization over the stock of knowledge that they possess. Knowledge has become the most important strategic factor in the operations of cooperation (Spender, 1996) as it relates to the ability of the company to achieve competitive advantage (Teece, 2000). However, this does not mean that the appropriate approach to address issues of KM is not significant for the success of the coffee processing companies in Indonesia. It may be just emphasized that an appropriate treatment for knowledge is a very important factor that determines whether a business will survive or not. The objective of this paper is to review researches on KM in coffee processing company in Indonesia to identify the gaps in the field and asses the future research activities and clarify other research areas which are no need to be studied in the future. According to the objective, some research questions are formulated as follows: Which KM topics have been researched and which topic have not been researched yet? What is the main finding in the research? What method is used in the research? How the research deal with particular challenge faced by small enterprises related to KM?

The paper is arranged as follows: in section two, the literatures related to the research objectives are discussed, the third section describes the methods used to address the research problems, the next section presents the results of research, and at the end, presents the conclusions and implications of the study.

## 2. Research Method

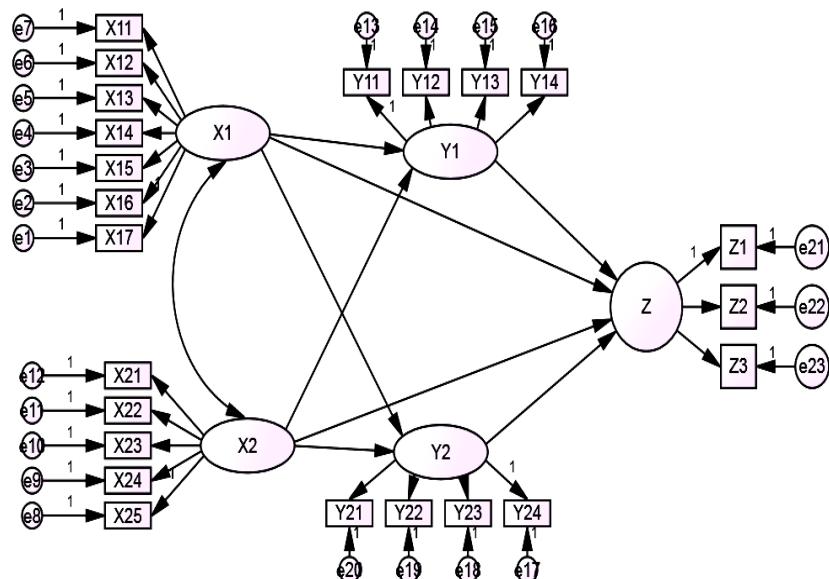
In the review process, the authors adopt systematic review principles recommended by Jesson *et al.*, i.e.: area mapping by scoping review, comprehensive research, quality assessment, data extraction, synthesis, and writing. First step, a research plan which includes research questions about interest, keywords, and a set of inclusion and exclusion criteria is developed. The objective of this paper is to determine the research status on KM in the processing company area today. The formulated research questions, as described above, are: Which KM topic is well researched and which is not,

what is the important findings of this study, what method is used? In related to the specific challenge facing by coffee processing businesses, as the consequence of its resources constraint, an additional question is proposed: how this research addressing specific challenge facing by small companies in related to KM? As the keyword, we decided to use KM in coffee businesses. To answer the research questions, the inclusion and exclusion criteria are established. Inclusion criterions are: publications within 2000-2011 period, empirical research paper, peer reviewed, KM focus in general, and KM processes as described in Fig. 1, Bahasa Indonesia and English, as well as ProQuest Database. The papers which are published before 2001, the papers which are related to cooperation and regional cluster, grey literatures like reports and non-academic researches, another language besides Bahasa Indonesia, and another database besides ProQuest, represent exclusion criteria. As an additional, an excel data which consists of key aspects that related to research is produced. In the given case, among others: authors' name, publication year, research objectives, theoretical perspective/framework, method, main findings, and journal's name.

Second, once those problems are already determined, both authors access ProQuest and search for appropriate articles. Initial search uses *knowledge management* keywords and coffee processing unit produce an unsatisfactory result in terms of the number of publication. Therefore, they decided to change the keywords “*knowledge management*” to “KM” which is combined with coffee processing unit and results 200 findings. In order to ensure that the review covers all papers from related journal, KM journals with highest rank, according to Serenko and Bontis, are also included, among others: Journal of Knowledge Management, Journal of Intellectual Capital and Knowledge Management Research and Practice. In addition, there are three other international journals in the area of small business enterprises which are reviewed, those are International Small Business Journal, Journal of Small Business Management and Entrepreneurship Theory and Practice. This makes the findings become 307. Third, both authors individually work out with abstract and, if relevance, they will go further to the next section of the article to ensure that those articles are truly covers the scope that had been determined. This procedure yielded 36 articles that meet the criteria and represent basic analysis.

Fourth, those 36 papers are divided for both the authors, so that each author read 18 papers. Then both the authors insert relevant data that related to research objectives into excel sheet. Then both the authors working on the data entry and discuss the contents. In case of there are parts that might be passes to be read, both the authors re-working on the papers through questions. This approach can diminish the likelihood that the analysis and the conclusion drawn might be inconsistent. Fifth, the final excel sheet will be discuss together. This discussion allows the authors to categorize the findings with KM themes, so that they can clarify what they know about KM in coffee processing unit and in which KM bodies does the knowledge is constraint.

#### *Research Paper Model*



Description:

- X<sub>1</sub> = Latent variable of Knowledge Management
- X<sub>2</sub> = Latent variable Business Environment
- Y<sub>1</sub> = Latent variable of Competitive Strategy

Y2 = Latent variable Cooperative Strategy  
Z = Latent variable of Coffee Processing Company Performance in Indonesia

### *Problem solving draft*

By referring to the problem identification, it is hoped that the solution variable can be obtained for the problem solving through research objectives and method in the sub-topic above. Once the solution is acquired, the mapping of strategy to find out a clear solution model is applied, followed by the development of operational strategy and the arrangement of action plan.

The complete stages of problem solving draft is as follow:

#### (1) The formulation of objectives

By doing an analysis based on the level of company need and interest in increasing performance with some services offered by coffee processing company in Indonesia through research variables that are effect to competitive strategy and cooperative strategy variable as well as performance variable of the company as an input in the formulation of short-term, mid-term and long-term strategy of the company. This strategy is an important process that defines the purpose and pursuits of an organization and the methods for achieving them that may be formulated at the corporate, business and functional level. Since strategy is about winning, a competition provides the rationale for strategy. However, each organization must have a strategic focus if it intends to survive and flourish in the long term.

#### (2) The mapping of strategy

In this stage, the solution variable is identified (independent variables which are significant) based on analysis result. The mapping aims at making clear the relationship between variables in this study. It provides an image of how those independent variables are at play to affect the dependent variables. The independent variable as identified in this study is competitive and cooperative strategies while dependent variable is organization performance. Competitive and cooperative strategies such as cost leadership, differentiation and focus are expected to influence organizational performance in terms of growth and profitability. The moderating factors are the environmental specific factors that shape or moderate the relationship between the independent and dependent variable. The study has identified technology, time and efficiency as moderating variables that may affect competitive strategies and influence performance.

The variable is not typically within the short-run control of top management. They may be general forces and trends within the overall societal environment and specific forces called task environment that operates within the organization's specific which includes suppliers, employers, competitors, trade association, communities, creditors, customers, special interest groups, Government and shareholders.

With regard to the likelihood of analysis result in the research model, this will deliver an alternative condition as follow:

##### a) *Knowledge management and business environment and its effect on the competitive and cooperative strategy.*

Knowledge represents one of the fundamental constituent parts of any organization and it can be incorporated into people's abilities or ingrained into structural and technological capital. Thus management of knowledge is at the core of organization's business growth.

While According to Porter (1980) competitive strategy is the search for a favourable competitive position in an industry, the fundamental arena in which competition occurs. The sustainability of this positional advantage requires that the business sets up barriers that make imitation difficult, because these barriers to imitation are continually eroding, the firm must continue to invest to sustain or improve the advantage.

Ghani et al. (2010) studied the critical internal and external factors of business environment in Malaysia and found that external factors which become opportunities for companies are supported and encouraged by the government, and the threats are represented by bureaucratic procedures that companies must face to obtain various approvals and certifications. This bureaucratic procedures often being a complicated process that has to be faced by most of the companies in Aceh. This led to the delay on the development of coffee processing unit in this region.

**Tabel 3.1 Alternative condition for solution variable (1)**

The variable effect to the competitive and cooperative strategy		Alternative condition	Solution variable focus taken from mapping strategy
Knowledge Management	Business environment		
Significant	Signifikan	Alternative 1.1	Both variable are developed
Significant	Not Significant	Alternative 1.2	Knowledge Management
Not Significant	Significant	Alternative 1.3	Business environment
Not Significant	Not Significant	Should be re-examined why this happen	-----

b) *Knowledge management and industry environment and its effect on the performance of coffee processing company in Aceh - Indonesia*

Company has to create a more attractive and favourable business environment that will attract export-oriented investor (Jegathesan, 1996). According to Jegathesan, this argument calls for governments to play the characterer of provider and initiator of a safe and favourable regulatory environment that provide suitable returns on investment.

In addition, the influence of industry environment is considered most significant for the stage of the life cyle of the industry on firm performance but not significant for other industry structural measures such as industry concentration, entry barriers and product differentiation (Robinson, 1998). Some researchers argues that industry structure is not too significant impact on the company perfomance. This is because company does not exist in a static environment. The industry environment will differ from one marke to the next (Sundqvist *et al.*, 2000). Different industry environment will require different decision about strategic choice and implementation (Craven, 2000).

c) *Competitive and cooperative strategy on the performance of coffee processing company in Aceh - Indonesia*

**Tabel 3.2 Alternative condition for solution variable (2)**

The variable effect on the performance of coffee processing company in Indonesia		Alternative condition	Solution variable focus taken from mapping strategy
Knowledge Management	Business environment		
Significant	Significant	Alternative 1.1	Both variable are developed
Significant	Not Significant	Alternative 1.2	Knowledge Management
Not Significant	Significant	Alternative 1.3	Business environment
Not Significant	Not Significant	Should be re-examined why this happen	-----

In case of coffee processing company as one of the small and middle enterprises form, knowledge management and industry environment do not play important roles in for their perfomance, because it rarely implemented in such those companies level.

However, according to the alternative condition above, the variables reflects that the SME is actually able to apply new knowledge within their firm.

d) *Competitive and cooperative strategy on the performance of coffee processing company in Aceh - Indonesia*

**Tabel 3.3 Alternative condition for solution variable (3)**

The variable effect on the coffee processing company		Alternative condition	Solution variable focus taken from mapping strategy
Competitive strategy	Cooperative strategy		
Significant	Significant	Alternative 1.1	Both variable are developed
Significant	Not Significant	Alternative 1.2	Competitive strategy
Not Significant	Significant	Alternative 1.3	Competitive strategy
Not Significant	Not Significant	Should be re-examined	-----

According to Porter (1998) competitive strategy is the search for a favorable competitive position in an industry, the fundamental arena in which competition occurs. The sustainability of this positional advantage requires that the business sets up barriers that make imitation difficult, because these barriers to imitation are continually eroding, the firm must continue to invest to sustain or improve the advantage. A firm's choice of competitive strategy will be dictated by its ability to create and sustain competitive advantage. Competitive advantage is the condition which enables a company to operate in a more efficient or otherwise higher quality manner than the companies it competes with, and which results in benefits accruing to that company (Bryson 1995).

Kergley (1990) carried studies in which they compared a set of companies which carried out strategic planning with those which did not use sales value, sales and earnings per share, and net incomes as parameters. They concluded that companies which practiced strategic planning succeeded in a big way and posted better results than better performers than those that did not plan. David (2003) cited in Lawrence, (2011) argues that this is not to say that all companies that used strategic planning are necessarily successful.

From each alternative above we can develop a strategy map to achieve the goal of problem solving. The strategy map begins from the determination of solution variable, then the arrangement of the operationalization of solution variable or detailing indicator of solution variable.

#### (1) Strategy Operationalization

Organizational leaders face many obstacles during operational planning and strategy implementation. Often, they are overwhelmed by the task of finding ways to implement dozens of program initiatives defined in the strategic plan, all deemed strategic and critical. With thinly stretched resources and limited time, executives need to be equipped with the right strategic planning tools that allow them to get strategy operationalized, implement plans effectively and keep their sanity in the process.

Executives that are experienced in strategic planning will develop deeper knowledge in strategic planning, plan execution and plan governance best practices. All executive students will learn valuable techniques that are directly applicable to operational planning and strategic plan implementation.

The operationalization strategy stage is arranged after the strategy map, a research on the effectiveness of each proposed suggestion by involving the management of coffee processing company in Indonesia is conducted.

#### (2) Action Plan

Based on the strategy mapping and operationalization, we can formulate an action plan. This action plan is a document that consists of lists of tasks and steps that must be taken in order to achieve the specific goal of the organization. This document will be used alongside or can be incorporated into the proper project plan.

The action plan also includes the strategic planning for short-term, middle-term and long-term of the company. This strategic planning will cover the process by which leaders of an organization determine what it intends to be in the future and how it will get there. Except for a very small organization, it will probably be desirable to set up a strategic planning committee or task force. Choose participants carefully, assuring their commitment to the process and their willingness to devote significant time to the planning effort.

### 3. Results and discussions

This paper has been reviewed empirical papers on KM in coffee processing unit issues. In the based-knowledge economic, an effective information management is one of the main issues that are facing by most of coffee processing unit actors. However, the coffee processing unit's founder or manager often trapped by daily business operational and therefore get off addressing the problems earnestly. Previous researches in KM area tended to emphasize on large companies. By keeping in mind that coffee processing units is an important driving factor for most of countries in the world, this situation is not a satisfying expectation. The conducted review shows that the body of knowledge related to KM in coffee processing units is still limited. The analysis on this paper indicates that three KM areas are relatively seems to be studied in coffee processing units, among others, KM implementation, KM perception, and knowledge transfer. However the KM bodies that related to identification topic, knowledge utilization and retention is still limited as well.

This paper concludes that the available empirical literature only provide a fragmented insight for KM in coffee processing units. Given the importance of knowledge for company study, KM issue in a small business is an important thing.

The present study clearly underlines that the topic is still need further research, which in turn offer scientist various research avenues.

The review on the exist empirical studies has provide a number of possible research direction. The authors expect an intensive research activity, specifically in three neglected KM areas as describe above, because only this factor that will enable a holistic understanding about KM in coffee processing units.

Besides, previous researches on this issue has observed four general areas that need to be developed and more attention:

- (1) *Longitudinal study*. KM-related issues that need long-term focus. Cross-sectional study only capture this focus to a certain extent. This study enables researchers to examine whether KM activities are changed from time to time because of the company become older and older or facing new challenges.
- (2) *Comparison-of-countries*. Further study needed, should discuss KM in coffee processing units issues, by considering the difference in countries, because it is reasonable to assume that KM activities will be varied among countries.
- (3) *Mix-methode approach*. This research direction will help in achieving a more holistic understanding about KM in coffee processing units rather than using mono method approach.
- (4) *Realistic lens*. Future research have to consider that coffee processing unit is not comparable with the listed large companies. As the consequence, the research have to be separated from discussing KM in coffee processing units from large companies' point of view to a more realistic approach by considering the constraint resources facing by coffee processing units and the environment where they are operated. Also, the heterogeneity among coffee processing units should be consider because of small companies are hard to be comparable with middle enterprises. The same cases refer to different industries that show variation in size, making the comparison among those industries become more challenging.

The present study is not without limitation. By restricting it to only ProQuest database, this study is impossible to covers all empirical articles about KM in coffee processing units. However, it seems to be reasonable to assume that the review process encompasses a large proportion from the available studies. Besides, reviewing literature is sometime confusing because there are many papers do not specify whether they are discussing about coffee processing unit or large companies. Finally, this paper proposes some research directions that are still incomplete but can be an important initial step.

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The ISCLO Conference 2014

## Knowledge Sharing Impact to the Absorptive Capacity and Innovation Capability Using PLS Method on Y Generation in Telkom University

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### Abstract

Telkom University as one of higher education institution has to increase their human resources quality. Knowledge as one of the intangible asset owned by the employees and this is important to be managed by Telkom University to raise the institution's value. The purpose of this research is identify the effect of knowledge sharing to the absorptive capacity and the effect of absorptive capacity to the innovation capability to the Y generation in Telkom University. The analysis is performed using PLS method in order to represent data in the form of path diagram. The results of this study show a significant effect of the knowledge sharing to the absorptive capacity and also of the absorptive capacity to the innovation capability in the Y generation in Telkom University.

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**Keywords:** Absorptive Capacity; Y Generation; Innovation Capability; Knowledge Sharing; PLS.

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### 1. Introduction

Knowledge is a very valuable asset to a company, if it isn't managed well, it will merely be an intangible asset that clings to each employees. Knowledge sharing has an important role in developing science to all in a company. The process of knowledge sharing has other strong connection which is knowledge absorbing. The knowledge owned will create an effect to the ability to absorb knowledge from the external surrounding or something that is usually said as the absorptive capacity [2].

Since knowledge is the key factor in achieving continuous innovation, the previous research connected the study of knowledge sharing and absorptive capacity [13]. The basic of a company in creating competitive special qualities is utilizing absorptive capacity to develop a unique competitive ability [10]. The previous study found a significant positive connection between absorptive capacity and innovation because these factors collaborated to develop a competitive benefit from both the employees and the organization [13]. Other study also shows that absorptive capacity is one of the important factors in predicting innovation capability [7].

There is a generation difference of the human resources in Telkom University various kinds of attitudes and behaviors of a person. The generation discrepancy concept was introduced by Gravett and Throckmorton. The labor category is divided into three categories based on birth which consisted of the baby boomer, X generation, and Y generation [3]. Based on the research, differentiation can illustrates that, there is an age difference that can cause knowledge, experience and expertise transfer conducted by different methods. Thus, in this research will also concern the generation categorizing in an education institution focusing on Y generation.

Research Purposes:

1. Identify the effect of knowledge sharing to the absorptive capacity in the Y generation in Telkom University.
2. Identifying the effect of absorptive capacity to the innovation capability in the Y generation in Telkom University.

## 2. Literature Review

### 2.1. Knowledge Sharing

The definition of knowledge sharing as an act from the employees spreading relevant information to other people in an organization [1]. Knowledge sharing as an activity of individuals mutually exchanging intellectual capitals (intellectual capital personal) [6]. This indicates that knowledge sharing consisted of two things, which are knowledge donating and knowledge collecting.

### 2.2. Absorptive Capacity

Absorptive capacity is the ability of a company to identify, assimilate, and exploit knowledge [2]. Other research is doing a reconceptualization to the absorptive capacity by submitting four dimensions in two series [13] that are:

- Potential Absorptive Capacity (PAC) including the ability to acquisition and assimilation knowledge.
- Realized Absorptive Capacity (RAC) including the ability to transformation and exploitation knowledge.

### 2.3. Innovation Capability

Innovation capability is the ability of the company to create creative ideas that are useful to the organization and can cause an effect to the competitive quality. Samson also classified innovation in three categories which are product innovation, process innovation, and managerial and system innovation.

### 2.4 Generation X and Generation Y

Generation X represents born following the post-World War II after Baby Boom Generation, in the 1965-1976. Generation Y born immediately after the Generation X, in the 1977 and early 1990. Generation Y is considered as the last generation born in the 20th century.

The two generations learn differently and they adopt different learning methodologies and strategies. The Generation X are subject to the cane, bullying and memorizing at school but the Generation Y want to dig beneath the conventional ideas and discover for themselves. The widespread use of personal computers, the Internet and advanced information communication technologies (ICT) plays an important role in defining the characteristics of the Generation Y population. They use the internet as a tool for learning and socialization. They are ambitious, demanding and question everything but they are also self-absorbed, gregarious, multi-tasking, and optimistic [5]. Generation Y also known as Digital Native whose learning is typically multimedia oriented and web based and they are egocentric, with less fear of failure and they are multi-taskers [9]. They are the first generation to use e-mail, instant messaging and cell phones since childhood and adolescence.

## 3. Hypothesis And Research Model

Previous theory explained about the effect of knowledge sharing to the ability to absorb knowledge [13]. Knowledge is a very valuable asset to the company, if it isn't managed well, then it will only be intangible asset that clings to each of the employees. In this matter knowledge sharing has a positive effect in creating intangible asset of the company. Knowledge sharing is a process where individuals mutually exchange information (tacit or explicit) and together creating a new knowledge [6].

The ability of the employees to do the knowledge donating and knowledge collecting will have a positive effect to the potential absorptive capacity. The acquisition and assimilation component can aim to maintain the competitive superior qualities when used and collected correctly with asset and other resources to complement each other [13]. The process of successful knowledge transfer, knowledge receiver will get an increase in the level of knowledge stock without causing the reduced stock of knowledge sender. It can also happen at the same time, that there is an interaction that will inspire employees through a learning atmosphere that is created to begin to transform and further exploit the knowledge gained.

The basis of competitive advantage of a company is in an effort to take advantage of absorptive capacity to develop unique competitive capabilities [10]. Exploiting external knowledge accumulated by the employee or the organization is the key to the ability of innovation [2]. Absorptive capacity is an important factor in predicting innovation capability [7]. Fig. 1. describes the hypotheses based on the theory of relevant research.

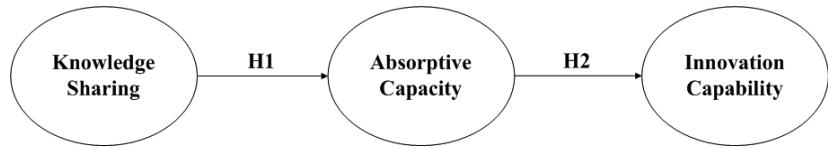


Fig. 1. Hypothesis Scheme

- Hypothesis 1:  
Effect of Knowledge Sharing on Absorptive Capacity in Y Generation.
- Hypothesis 2:  
Effect of Absorptive Capacity on Innovation Capability in Y Generation.

#### 4. Research Methodology

##### 4.1. Research Group and Boundary Conditions

The selection of the research object to the collection and processing of data should notice to the birth of date (years) the object, because every generation has learned differently and they adopt different learning methodologies and strategies.

The boundary of this research model adopt on the research model conducted by Liao et al [8] and Zahra & George [13] but did not discuss the outcomes generated in these studies (strategic flexibility, innovation, and performance) and did not adopt direct influence of knowledge sharing to innovation capability.

##### 4.2. Identification of Operational Variables

Operationalization variables is the process of translating research or defining a concept that could make measurable. Table 1 identifies the operationalization of each variable were observed in this paper.

Table 1. Operational Variables

Type	Variable	Dimension	Operational Definition
Exogenous Construct	Knowledge Sharing	Knowledge Donating	The staff ability to share their knowledge such as ideas, expertise, and contextual information.
		Knowledge Collecting	The staff ability to collect knowledge from the other staff such as ideas, expertise, and contextual information.
		Acquisition	Speed and effort intensity of staff when identify and get the knowledge for each operational activity that has been get from the external environment.
	Absorptive Capacity	PAC	Staff ability to analyze or asses their knowledge first, synthesize the knowledge and combine it after getting from external references.
		Assimilation	Staff ability to develop and routine improve to facilitate common knowledge combination with new knowledge that has been got.
		RAC	Transformation
		Exploitation	Staff ability to improve, enlarge, and bring the common competition or create the new one by combining the knowledge that has been got.
Endogenous Construct	Innovation Capability	Process Innovation	Ability to decrease the cost and increase the productivity. This innovation can cut the cost in order that it can increase the service value.
		System & Managerial Innovation	Each personal ability to solve the problem, integrate the knowledge and give solution to organizations needs.

##### 4.3. Measurement and Research Sample

Data collection methods used in this study is survey method. The tools used in the form of a questionnaire. Measurement scale used is the scale or frequency of ten (1-10), with each variable has a different scale characteristics. Knowledge sharing has a characteristic variable frequency of how often the respondent has made knowledge sharing with other people. Absorptive capacity variable has a characteristic variable frequency of the individual respondent's ability to perform the

PAC and RAC. Innovation capability has a characteristic frequency level to create innovation in tangible form, the rule, system or product, etc.

Determination of the sample using simple random sampling technique to the entire staff of Non-Study Program of Telkom University as many as 13 units. The data were processed using the PLS method, with the software SmartPLS 2.0 M3.

#### 4.4. Validity and Reliability

The testing of the validity and reliability of the measurement model is done by Confirmatory Factor Analysis (CFA). Table 2 shows the validity and reliability of each research indicator. For the indicator code D1, D3, C3, C4 and C5 are not included in the table because the indicator has a value of loading factor  $<0.5$ .

Taking into account the value of the weight factor ( $\lambda$ ) of each element on the relative importance and significant of the factor loading of each item, stating that the elements ( $\lambda \geq 0.50$ ) is valid and reliable declared value composite reliability when  $CR > 0.7$  [4].

Table 2. Loading Factor Values ( $\Lambda$ ) And Reliability (CR)

Dimension	Indicator Code	Loading Factor $\lambda \geq 0.50$	Reliability $CR \geq 0.70$	Dimension	Indicator Code	Loading Factor $\lambda \geq 0.50$	Reliability $CR \geq 0.70$
Knowledge Donating	D2	0.705	0.888	Transformation	T1	0.783	0.924
	D4	0.624			T2	0.87	
	D5	0.557			T3	0.782	
	D6	0.562			T4	0.855	
	D7	0.749			T5	0.911	
	D8	0.729			E1	0.804	
	D8	0.76			E2	0.903	
	D10	0.631			E3	0.85	0.929
	D11	0.778			E4	0.836	
	D12	0.741			E5	0.856	
Knowledge Collecting	C1	0.534	0.833	Process Innovation	P1	0.93	
	C2	0.643			P2	0.897	
	C6	0.769			P3	0.749	0.945
	C7	0.584			P4	0.798	
	C8	0.786			P5	0.875	
	C9	0.624			P6	0.904	
	C10	0.591			M1	0.922	
	Q1	0.738	0.886	System & Managerial Innovation	M2	0.907	
	Q2	0.579			M3	0.89	0.95
Acquisition	Q3	0.799			M4	0.889	
	Q4	0.693			M5	0.842	
	Q5	0.824					
	Q6	0.853					
	S1	0.798					
	S2	0.806					
Asimilation	S3	0.804	0.924				
	S4	0.754					
	S5	0.883					
	S6	0.86					

#### 5. Results And Analysis Of Data Processing

Data processing of the research uses the Partial Least Square (PLS) methods. PLS is an alternative method of Structural Equation Modeling (SEM) that can be used to solve complex problems of the relationship between variables but the size of the data sample is small (30 to 100) [4]. In the PLS data should not normally distributed, a sample of at least 30, and not necessary to test the model goodness (goodness of fit index). This is the following explanation of the structural model in this study. Table 3 shows the value of relationship among knowledge sharing, absorptive capacity, and innovation capability.

Table 3. Value Of Construct Effect

Construct Effect to Construct			Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
Knowledge Sharing	→	Absorptive Capacity	0.46	0.47	0.12	0.12	3.84
Absorptive Capacity	→	Innovation Capability	0.74	0.74	0.06	0.06	12.96
Knowledge Sharing	→	Knowledge Donating	0.97	0.98	0.01	0.01	121.49
Knowledge Sharing	→	Knowledge Collecting	0.93	0.94	0.02	0.02	46.26
Absorptive Capacity	→	Acquisition	0.94	0.94	0.01	0.01	76.59
Absorptive Capacity	→	Assimilation	0.95	0.95	0.01	0.01	89.05
Absorptive Capacity	→	Transformation	0.87	0.87	0.05	0.05	18.17
Absorptive Capacity	→	Exploitation	0.96	0.96	0.01	0.01	106.58
Innovation Capability	→	Process Innovation	0.99	0.99	0	0	589.12
Innovation Capability	→	Management and System Innovation	0.99	0.99	0	0	437.88

### 5.1. Outer Model

Outer model basically a specification relationship between the indicator and the construct. The results of the evaluation outer models can be seen in Table 2 which shows that the question items and dimensions as the existing indicators are valid and reliable. This suggests that the existing indicators and dimensions have been able to explain the construct (latent variables) that are involved in structural equation models good.

Dominant dimension, the highest indicators and indicators of the lowest in the build of each variable is as follows:

- *Knowledge Sharing*

The most dominant contribution in building a knowledge sharing variable is knowledge donating on C8 indicator stating "I ask my colleagues work development through the internet", in improving the dominant indicator, must be supported by the existence of adequate facilities for all employees, especially the Internet and PCs. While most low indicator is C1 ie "I urge my colleagues to discuss in person to develop an idea that I have".

- *Absorptive Capacity*

The most dominant influence in building absorptive capacity variable is realized absorptive capacity - exploitation. The highest indicator found in the T5 is "To improve better service work, I started to create a new service concept". While the lowest indicator contained in Q2 stating "I was able to improve expertise through training".

- *Innovation Capability*

The most dominant contribution in building innovation capability variable is the innovation process. The highest indicator P1 states "I am making improvements to facilitate the performance of work activities of employees". However, the achievement which is indicated by the Y Generation represents innovation and management process and information systems that have the same level of both very good and high. This is consistent with the dominant indicator in building absorptive capacity which proves the ability of the staff on realized absorptive capacity in the exploitation activities which have been actually carried to achieve business improvement in work activities (existing products such as the creation of a new process created procedures).

### 5.2. Inner Model

Inner models are part of a model that describes the relationship related to the latent variable underlying the research model. Structural model is basically a tentative answer (hypothesis) of the proposed explanatory research problem [11].

The results of the evaluation of the inner workings of the model in Fig. 2. shows that the latent variable Knowledge Sharing has a significant effect on the ability to Absorptive Capacity of 0.46 or 21.62%. In the second equation, it can be seen that the latent variable Absorptive Capacity has a significant effect on the ability to Innovation Capability of 0.74 or 55,12%.

### 5.3. Structural Equation Model

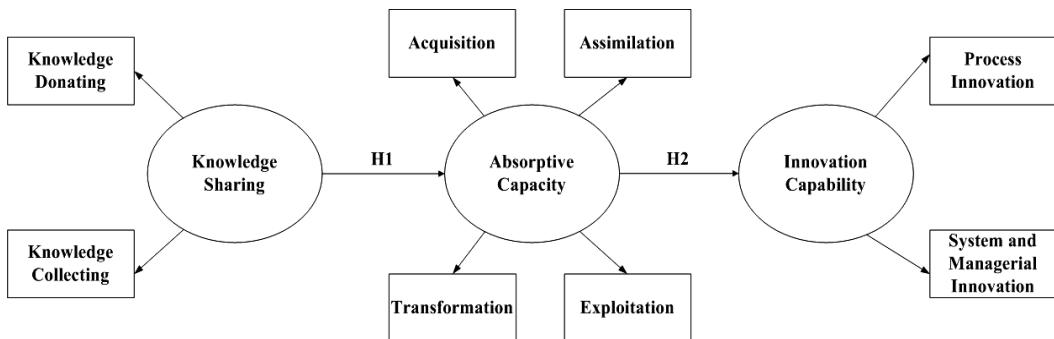


Fig. 2. Structural model of second order

Fig. 2. illustrates the results of the structural model from second order of the relationship between each variable (construct) and indicates the influence of each dimension in forming each variable, whereas to show the influence of each dimension to the endogenous variables to absorptive capacity and innovation capability can be seen in Table 3 . Results of significance level and loading factor further described and detailed in Table 3 as follows.

### 5.4. Analysis of Hypothesis

A structural equation model is used to estimate the direct and indirect effects. According to the result of second order structure, Table 4 shows the value of path coefficient and t-statistic required in hypothesis testing. The criteria used in the hypothesis test is: Reject  $H_0$  if t-statistic  $>$  critical value (1.96), received in another case ( $H_1$ ) [12].

Table 4. Statistical Hypothesis Testing

Hypothesis	Loading Estimation (y)	Percentage (%)	Significance (t statistic)
1 Knowledge Sharing Influence To Absorptive Capacity (Hypothesis 1)	0.46	21.16	3.84
2 Absorptive Capacity Influence To Innovation Capability (Hypothesis 2)	0.74	54.76	12.96

- Hypothesis 1:

$H_0$ : There is no significant influence of Knowledge Sharing to Absorptive Capacity

$H_1$ : There is a significant influence of Knowledge Sharing to Absorptive Capacity

Based on the test criteria, concluded that  $H_0$  is rejected because the t-statistic (3.717)  $>$  critical value (1.96). It can be concluded that there is a significant influence on the Absorptive Capacity of Knowledge Sharing. Knowledge Sharing has a total positive direct effect on Absorptive Capacity of 0.46 or 21.16%. A percentage of 78.84% is influenced by other variables that are not described in the model.

- Hypothesis 2:

$H_0$ : There is no significant influence of Absorptive Capacity to Innovation Capability

$H_1$ : There is a significant influence of Absorptive Capacity to Innovation Capability

Based on the test criteria, concluded that  $H_0$  is rejected because (12.701)  $>$  critical value (1.96). It can be concluded that there is a significant influence of the Absorptive Capacity on the Innovation Capability. Absorptive Capacity has a total positive direct effect on the Innovation Capability of 0.74 or 54.76%. A percentage of 45.24% is influenced by other variables that are not described in the model.

## 6. Conclusions

Based on the result and analysis of structural equation model, this paper shows the influence of knowledge sharing on the absorptive capacity and innovation capability. There is significant influence of the Knowledge Sharing to Absorptive Capacity and Absorptive Capacity to Innovation Capability of Y Generation on non-Study Program in Telkom University.

Knowledge Sharing has a total positive direct effect on Absorptive Capacity of 0.46 or 21.16%, whereas Absorptive Capacity has a total positive direct effect on the Innovation Capability of 0.74 or 54.76%. It can be seen from the value of

the t-statistic in testing hypothesis with the critical value of more than 1.96 and the value of total positive direct it can be stated from loading estimation ( $\gamma$ ).

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# Knowledge Sharing Influence on Absorptive Capacity and Innovation Capability in Baby Boomers Generation and X Generation at Telkom University

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## Abstract

In the development of educational service providers that is growing rapidly, excellent service, future prospects, and innovation are required in order to excel in the competition. Telkom University as an education provider which recently underwent a name change needs an extra effort to better the transformation as supported by quality system and strongly-committed human resources, hence good work process from the staff and knowledge building which becomes an asset of paramount importance in an organization are absolutely necessary. Knowledge from each staff can be collected and stored in order for it to be shared with the entire elements in the organization so as to improve the work process and ensure that innovation can be created by everyone, regardless of position. This research is focused on baby boomers and X generation in the process of knowledge sharing conducted at Telkom University. From knowledge sharing process, the level of organizational and individual capability of absorbing new knowledge both from internal and external environment is later determined. The ability to absorb knowledge can construct a motivation in a work system in order to increase the value of a company, and thus questionnaires are distributed to staff of supporting units at Telkom University to learn of the process. After the data is gathered, data is processed using PLS method to test its validity and reliability, measure the structural model and perform hypothesis testing on the influence between the variables. The result of the data processing can be used to learn of the significant influence of knowledge sharing on absorptive capacity and the influence of absorptive capacity on innovation capability.

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**Keywords:** Absorptive capacity; baby boomers generation; innovation capability, knowledge sharing, PLS method, X generation.

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## 1. Introduction

Competitive advantages to achieved by the organization is not enough to rely on the ability of the existing or just provide training to improve skills, but now organization also need to consider how the value of knowledge in the organization and how knowledge can be shared with all elements in the company (knowledge sharing) so the costs companies can be minimized [1]. In process of knowledge sharing can not be denied will encounter some obstacles. The process of knowledge sharing could be bumped to difference in the generation or age. Such differences classified according to the year of birth to 4 generations are The Traditionalist (1930-1945), Baby Boomers (1946-1964), X Generation (1965-1976) and Y Generation (1977-1990) [2]. Each generation have different habits and attitudes that can lead to conflict so needs a proper strategy to bridge the generation gap so knowledge can be shared and sustainable.

After a process of knowledge sharing, next level of the organization or individual ability is to absorb new knowledge that determined by absorption owned by each, individual or organization (absorptive capacity) which is an organization's ability to identify the value of new information, assimilate, and utilize the knowledge of external environments. Absorptive capacity consists of two are Potential Absorptive Capacity (PAC) and Realized Absorptive Capacity (RAC). In the context

of the individual, absorptive capacity, and motivation into an ability to obtain external knowledge as well as the ability to use knowledge to innovate. Innovation is the intentional introduction and application within the organization of ideas, process, products or procedures will distributed to relevant units to be designed so significantly helpful for the individual, group, organization or wider society. Innovation can be divided into three categories are product innovation, process innovation, and managerial and system innovation.

Telkom University ratified on 21 August 2013 made this university have to hard work to change from all aspect so educational institutions can be on part with other leading university in Indonesia and international. During the rapid business changes and more better, Telkom University requires superior human resources to fill every division and strive to continue learn in order to run the system remains aligned with the objectives to be achieved. Telkom University certainly has the human resources consisting of various ages ranging from young age to old age. The presence of such an age difference causing the gap between generations ranging from the pattern of thinking, way of working up a response to new knowledge.

Previous research discusses about the relationship of knowledge sharing and absorptive capacity explains that the ability to absorb knowledge has a major influence on the institution's ability to innovate [3]. In another study stated in a case study in an insurance company that differences in perception and the social character of labor between generations could result in the loss of knowledge within an enterprise. When employees hiring back retired so threatened loss of knowledge [4].

Based on the problems and references above it is necessary to study ways and means used to perform knowledge sharing so as to know the level of absorptive capacity to see the innovation capability of an organization by using the questionnaire method according to the operational rules of the bloom (bloom taxonomy). Therefore, the present study will discuss about relationship of knowledge sharing, absorptive capacity, and innovation capability that focuses on baby boomers generation and X generation at Telkom University. In the research study method used PLS (Partial Least Square) to model the influence between factors by taking the data staff at Telkom University.

The objectives of this study are :

- a. To identify the effect on the absorptive capacity of knowledge sharing on the baby boomers generation and X generation at Telkom University.
- b. To identify the influence of absorptive capacity on the level of innovation capability on the baby boomers generation and X generation at Telkom University.

## **2. Methodology**

### **2.1 Research Design**

The study begun with field studies and literature to form the background of the problem, formulation of the problem and research objectives are also supported predecessor studies. From the initial identification stage conceptual model can be made to determine the identification of the variables in the study of the effect of knowledge sharing, absorptive capacity, and innovation capability for the baby boomers generation and X generation. Of the variables, the study is seen to operational variables : knowledge donating, knowledge collecting, potential absorptive capacity which has a capacity of sub-dimensional acquisition and assimilation, realized absorptive capacity which has a sub-dimensional transformation and exploitation, process innovation, and system and managerial innovation. Selection of the research model using supporting unit staff population at the Telkom University there are 13 supporting units with a number of 80 respondents and for the respondents in the baby boomer generation and X generation are 32 respondents. After obtaining the research variables then perform hypothesis scheme, identifying indicators of each variable as well as the identification of methods and means of data collection using survey methods and data collection tools using a questionnaire with a preparation based taxonomy bloom.

### **2.2 Data Analysis**

After the questionnaires were developed based on the variables to be studied, the collection of data using simple random sampling with data processing using SmartPLS 2.0 to test the measurement model and the structural model and the test hypothesis test.

### 3. Result and discussions

This study uses the PLS method steps include evaluation of the measurement model with Confirmatory Factor Analysis (CFA) for testing the items on the variables in the model, the evaluation of the structural model, and hypothesis testing loading wear estimation (gamma). Here is a hypothetical scheme of research described in Figure 1.

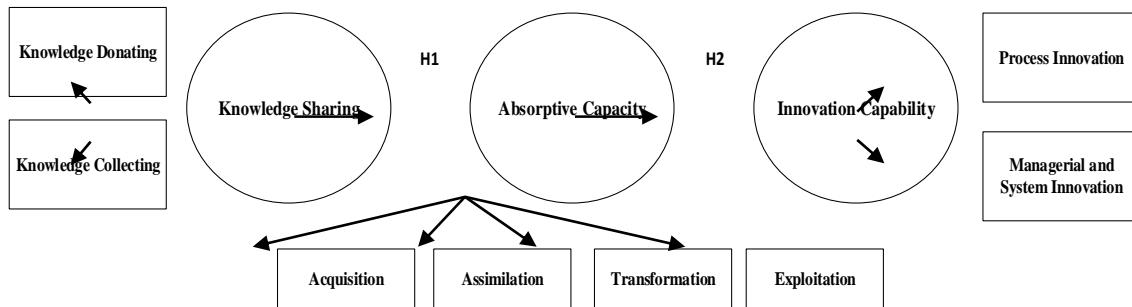


Fig.1. Scheme of Research Hypothesis

From the hypothesis scheme hypotheses between variables can be determined as follows:

Hypothesis 1 : Knowledge sharing influence of the absorptive capacity on baby boomers generation and X generation.

Hypothesis 2 : Absorptive capacity influence of the innovation capability on baby boomers generation and X generation.

Respondents were employees of the supporting units at Telkom University. Method of determining the sample using simple random sampling technique. Questionnaires carried out on 13 units with a total population of 80 staff, will then be carried out confirmatory factor analysis modeling to look at the validity and reliability of measurement instruments for each variable and construct the structural equation model to analyze the effect of exogenous variables on endogenous variables. The analysis procedure is performed for all variables existing constructs and effect of the proposed models, namely the model influence the ability to share knowledge (knowledge sharing), the ability to absorb knowledge (absorptive capacity), and innovation capability. The data obtained from the questionnaires were 80 questionnaire with 32 respondents who can qualify for respondent characteristics analysis, descriptive analysis, CFA, and PLS.

Data processing is first analyzed the characteristics of respondents to see the characteristics of the respondents in this research. Here are the characteristics of the respondents are described in Table 1.

Table 1. Respondent Characteristics Analysis

No	Respondent characteristics variable	Total (person)	Percentage (%)
1	Sex	Male	43,75
		Female	56,25
2	Year of birth	1946-1964	12,5
		1965-1976	87,5
3	Unit	Perpustakaan	18,75
		SPM	9,38
		PPM	3,13
		Int.Office	6,25
		BPA	6,25
		Marketing	6,25
		SAI	6,25
		SISFO	0
		SDM	9,38
		Sekpim	9,38
		Pusat Bahasa	15,63
		Logistik	3,13
		Keuangan	6,25
		0 - 3	18,75
		3 - 6	6,25
		6 - 9	9,38
		>=9	65,63
4	Long worked in unit (month)		

After the initial recap, then analysis of research data statistically using partial least square analysis to test and explore models based on a clear theory. Influence between latent variables in this study are summarized in the research objectives can be answered through the analysis of partial least square. Data processing using statistical software SmartPLS 2.0 to produce output that describes the results of the analysis of Partial Least Square (PLS). First, performed confirmatory factor analysis is to test the validity and reliability of the measurement model is a model that is reflective measurement or reflective outer models show the manifest variables or observed variables represent the latent constructs to be measured by testing the validity and reliability of the indicators forming the latent constructs through confirmatory factor analysis [5]. It is to see the construct or latent variables are investigated appropriately and consistently can be explained by the indicators are conceptualized. In testing the CFA are exogenous variables that cause variable, a variable that is not influenced by other variables. Exogenous variables effect of other variables. In the path diagram, these exogenous variables explicitly marked as variables that no single arrow headed towards. Endogenous variable is the effect of exogenous variables. Variables in the path diagram is characterized by the presence of why an arrow toward it. Endogenous variables can be further divided into two, namely the endogenous variables that applies as between the endogenous variables and the endogenous variables that applies as the dependent variable. CFA test results can be seen in Table II below.

Table 2. CFA Exogenous Constructs Valid

<b>Construct Eksogen</b>	<b>Dimension</b>	<b>Manifes</b>	<b>Loading Factor</b>	<b>Result</b>	<b>CR</b>
<b>Knowledge Sharing</b>	<b>Knowledge Donating</b>	item1	0,523	Valid	<b>0,815</b>
		item5	0,555	Valid	
		item21	0,079	Valid	
		item17	0,492	Valid	
		item18	0,540	Valid	
		item14	0,153	Valid	
		item10	0,658	Valid	
		item2	0,464	Valid	
		item22	0,670	Valid	
	<b>Knowledge Collecting</b>	item15	0,647	Valid	<b>0,841</b>
		item11	0,625	Valid	
		item12	0,701	Valid	
		item4	0,360	Valid	
		item8	0,419	Valid	
		item20	0,602	Valid	

Table 3. CFA Endogenous Constructs Valid

<b>Construct Endogen</b>	<b>Dimension</b>	<b>Manifes</b>	<b>Loading Faktor</b>	<b>Result</b>	<b>CR</b>
<i>Absorptive capacity</i>	<i>Acquisition</i>	item31	0.744	Valid	<b>0.924</b>
		item23	0.773	Valid	
		item33	0.742	Valid	
		item25	0.874	Valid	
		item29	0.881	Valid	
		item27	0.881	Valid	
	<i>Assimilation</i>	item30	0.844	Valid	<b>0.910</b>
		item32	0.674	Valid	
		item26	0.863	Valid	
		item24	0.857	Valid	
		item34	0.645	Valid	
		item28	0.849	Valid	
<i>Innovation capability</i>	<i>Transformation</i>	item37	0.806	Valid	<b>0.948</b>
		item39	0.933	Valid	
		item43	0.853	Valid	
		item35	0.913	Valid	
		item41	0.921	Valid	
	<i>Exploitation</i>	item44	0.884	Valid	<b>0.951</b>
		item40	0.943	Valid	
		item36	0.888	Valid	
		item42	0.863	Valid	
		item38	0.883	Valid	
<i>Innovation capability</i>	<i>Process Innovation</i>	item53	0.871	Valid	<b>0.945</b>
		item47	0.821	Valid	
		item55	0.873	Valid	
		item45	0.808	Valid	
		item49	0.897	Valid	
		item51	0.886	Valid	
	<i>Managerial and System Innovation</i>	item54	0.972	Valid	<b>0.966</b>
		item52	0.936	Valid	
		item50	0.932	Valid	
		item46	0.888	Valid	

Validity of the test results showed that all items have a valid question because it has a coefficient weighting factor (factor loading) for each item of the question no less than 0.50. Meanwhile, based on the results of Construct Reliability (CR) greater than 0.70 and considered the value of the factors of each element using the guidelines from Hair et al about the relative importance and significant of the factor loading of each item, stating that the elements of the ( $\lambda \geq 0.50$ ) declared invalid and declared value of composite reliability reliable if  $CR > 0.7$  [6]. This suggests that the ability of knowledge sharing has a valid and reliable. The CFA to test results on items that measure the ability of endogenous constructs of absorptive capacity and innovation capability, test the validity of the results obtained indicate that all the items have a valid question because has coefficient weighting factor (loading factor) for each of the question items not less than 0.50. Meanwhile, based on the results of Construct Reliability (CR) greater 0.70.

The next step is to model the structural hypothesis eta is the answer to the problem of the proposed research. The first structural equation models to explain the influence of knowledge sharing to absorptive capacity, while the second structural equation model to explain the effect of variable absorb ability knowledge (absorptive capacity) ability to innovation capability. Here's an explanation on the structural model of the study.

#### A. Outer Model

Outer model is a description of the relationship between constructs with the indicator. Measurement model describing the relationship between the construct to the indicators described in the form of mathematical equations.

#### B. Inner Model

Inner models contains the structural description of the influence of the underlying inter-construct the research model.

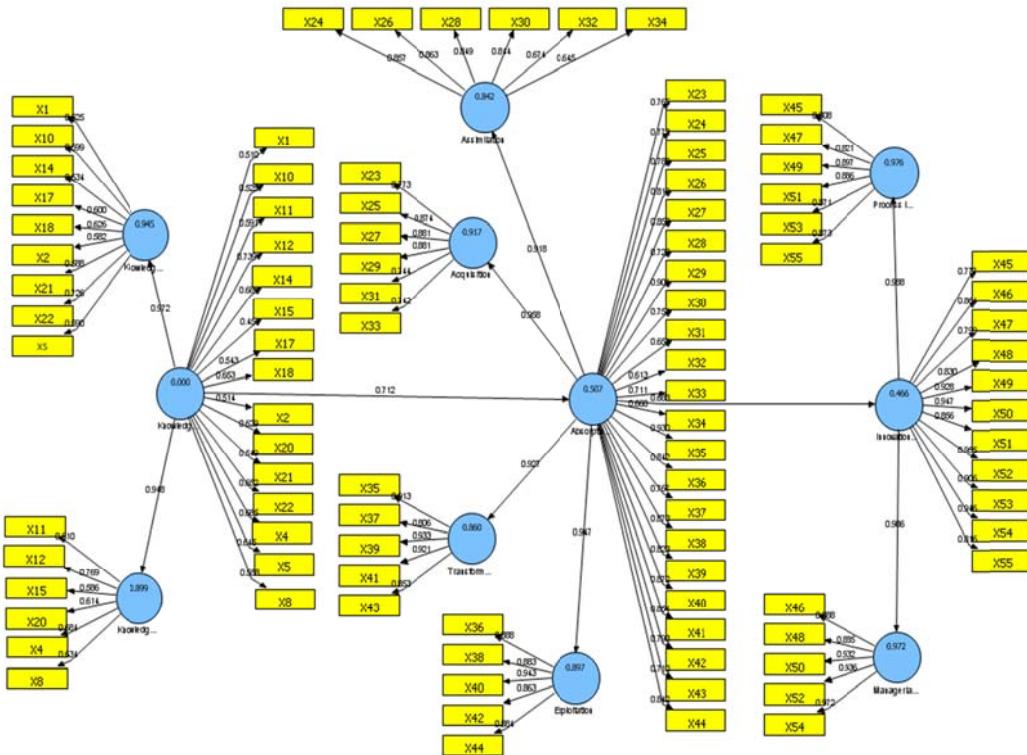


Fig.2. Inner Model

Inner model is basically a part of the model that describes the relationship of the latent variables are related.

The third step is testing the hypothesis put loading estimation. Here are the results of hypothesis testing.

## Structural Equation 1

The first structural equation model to explain the effect of the ability to share knowledge (knowledge sharing) the ability to absorb knowledge (absorptive capacity).

$$\eta_1 = \gamma_1 * \xi_1 + \zeta_1$$

$$\eta_1 = 0.712 * \xi_1 + 0.106$$

## Structural Equation 2

The first structural equation model to explain the effect of the ability to absorb knowledge (absorptive capacity) on the ability to innovate (innovation capability).

$$\eta_2 = \eta_1 * \beta + \zeta_2$$

$$\eta_2 = 0.683 * \beta + 0.123$$

Specification:

$\eta$  = Latent endogenous variables

$\xi$  = Latent exogenous variables

$\eta_1$  = Variable endogenous latent ability to absorb knowledge (absorptive capacity)

$\eta_2$  = Variable endogenous latent ability to innovate (innovation capability)

$\xi_1$  = Variable exogenous latent ability to share knowledge (knowledge sharing)

$\gamma$  = Coefficient between the latent exogenous variables to the endogenous latent variables

$\beta$  = Coefficient between the two endogenous latent variables

$\zeta$  = Structural Errors

From the structural model, the latent variable ability to share knowledge (knowledge sharing) the ability to absorb knowledge (absorptive capacity) has a significant influence amounted to 0.712 or 50.70%. Meanwhile, it can also see that the latent variable ability to absorb knowledge (absorptive capacity) on the ability to innovate (innovation capability) has a significant effect also was 0.683 or 46.65%.

The third step is testing the hypothesis put loading estimation. Here are the results of hypothesis testing.

Table 4. Hypothesis Testing

Hypothesis Testing		Path Coefficient	Significance (t statistic)
1	Knowledge sharing influence of the absorptive capacity on baby boomers generation and X generation	0,712	6,1609
2	Absorptive capacity influence of the innovation capability on baby boomers generation and X generation	0,683	5,4474

Hypothesis 1:

H0: There is no significant effect of the knowledge sharing to the absorptive capacity

H1: There is a significant influence of the knowledge sharing to the absorptive Capacity

Test criteria:

Based on the test criteria, reject H0 if t statistic > critical value, which means there is a significant effect of the variables studied. Based on the test criteria, it can be concluded that H0 is rejected because the t statistic (6.717) > critical value (1.96). Thus, it can be concluded that there is a significant influence of the knowledge sharing to absorptive capacity, total direct influence knowledge sharing capabilities of absorptive capacity by 0.712 or 50.70%, in other words the ability to absorb knowledge latent variables positively influenced by the ability to share knowledge by 50 , 70%. The remaining amount of 49.30% is influenced by other variables that are not described in the model.

Hypothesis 2:

H0: There is no significant effect of absorptive capacity on innovation capability

H1: There is a significant influence of absorptive capacity on innovation capability

Test criteria:

Based on the test criteria, reject H0 if t statistic > critical value, which means there is a significant effect of the variables studied. Based on the test criteria, it can be concluded that H0 is rejected because the t statistic (5.516) > critical value (1.96). Thus, it can be concluded that there is a significant effect of absorptive capacity on innovation capability. Total direct influence on the ability to absorb knowledge innovation capability of 0,683 or 46.65%, in other words the ability to innovate latent variables positively influenced by the ability to absorb knowledge by 46.65%. The remaining amount of 53.35% is influenced by other variables that are not described in the model.

Table 5. Outer Model

Hypothesis Testing	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
Absorptive capacity -> Acquisition	0,958	0,9606	0,0133	0,0133	72,1642
Absorptive capacity -> Assimilation	0,918	0,9282	0,0186	0,0186	49,3488
Absorptive capacity -> Exploitation	0,9466	0,9505	0,0155	0,0155	61,1146
Absorptive capacity-> Innovation capability	0,6829	0,702	0,1254	0,1254	5,4474
Absorptive capacity -> Transformation	0,9269	0,9334	0,0153	0,0153	60,611
Innovation capability -> Managerial and system innovation	0,986	0,987	0,0056	0,0056	177,6299
Innovation capability -> Process innovation	0,9881	0,9886	0,0049	0,0049	199,6723
Knowledge sharing -> Absorptive capacity	0,7442	0,7505	0,1208	0,1208	6,1609
Knowledge sharing -> Knowledge donating	0,9271	0,9329	0,025	0,025	37,0462
Knowledge sharing -> Knowledge collecting	0,971	0,971	0,0132	0,0132	73,5084

In testing hypotheses derived from the model showed that the outer dimensions of knowledge sharing is the dominant (seen from T Statistics) is a knowledge donating (73.5084) in the form of activities to provide knowledge directly. Knowledge donating this means that the individual is more like face-to-face during the discussion and exchange of knowledge. As for the dimensions of the absorptive capacity is positively influencing the intensity acquisition in identifying and acquiring knowledge from outside, in other words that individuals would rather acquire new knowledge deeper than examine its existing knowledge so as to produce better innovation. For dimensions and managerial innovation process and system innovation has significant influence in building innovation capability. Of dimensions that exist in the innovation capability variables, factors or dimensions is the most dominant process innovation is an improvement and development of services / processes so that from the information that has been held, the staff is more thinking to be able to improve the process, so it can efficiently operational charge on the unit.

#### 4. Conclusion

The research was conducted on the individual as the unit of analysis. Respondents consisted of 32 respondents who are employees of Telkom University. The results of data processing can answer four predefined problem formulation so as to lead to the conclusion:

1. There is a significant influence of shared knowledge (knowledge sharing) the ability to absorb knowledge (absorptive capacity) with a variable positively influenced by knowledge sharing by 50.70%. So that the baby boomers generation and X in supporting unit of Telkom University, knowledge sharing has influence and the role of absorptive capacity to form employee. For constructive dimension to knowledge sharing, the knowledge donating and collecting knowledge on variables with significant influence in building knowledge sharing. Of dimensions that exist, the most dominant dimension is donating knowledge. Dimensional acquisition, assimilation, transformation, and exploitation in the absorptive capacity variables have a significant influence in the variable influence of absorptive capacity. Of dimensions that exist in the absorptive capacity variables, the most dominant dimension is acquisition.
2. There is a significant influence on the ability to absorb knowledge (absorptive capacity) on the ability to innovate (innovation capability) with positively influenced by variables of knowledge sharing by 46.65%. So that the baby boomers generation and X generation in supporting unit of Telkom University, absorptive capacity has a role to influence and shape the innovation capability of employees. In the dimension of the innovation capability and

managerial dimensions of process innovation and system innovation has significant influence in building innovation capability. Of dimensions that exist in the variable innovation capability, the most dominant dimension is process innovation.

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The ISCL Conference 2014

## Messages from the Front: A personal view

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### Introduction

This is a personal view of some issues that new knowledge managers face. I am often asked the following list of questions:

Where to start? Should we do an audit? What should we measure? How? Is there a ready-made solution? What software do we need? What information will we collect? Should we apply KM systems/applications/ practice through the whole company? An individual department? What will it cost? What will be the expected return on that investment? How can we persuade top management to invest? Is there anything for free?

I would also add that the answers to these questions are expected for free.

### Current KM focus

My own KM research is currently concentrated on Malaysian Culture & Heritage, developing multimedia rich metadata. The aim is both to conserve the comprehensive archive for academics, students and the general public. The archive also includes oral histories particularly of craftsmen and women, whose knowledge will ‘evaporate’ in the near future as many are very old.

Arising from this study we are embarking on developing a Malaysian Post-Merdeka (Independence) Architectural Heritage Digital Atlas conjunction with Universiti Malaya. We lose our architectural heritage through carelessness and lack of record, denying future generations the opportunity to understand, and learn from the pioneers of Independence. We lose precedents.

We are utilising mobile and web access from all platforms, inclusive of all digital forms of record, for professional and public use. The taxonomies based on internationally agreed core data are to allow for both interest (professional, student, laymen, and tourists) and research. Other KM research in Multimedia University includes first responder protocols in disaster management.

I describe our current research interest as it is very remote from the questions I am posed by new KM practitioners. It has caused me to consider what help or assistance is readily available to them. I have suggested that they join my Master degree programme in Knowledge Management, and occasionally they do, but for most they depend on other sources so I have made a simple exploration of some of the advice available online.

### Information seeking and sharing

It is not my purpose here to deliberate on learning organisations, though the importance of reflection and dialogue with regard to information that governs future behaviour cannot be overstated. Most inexperienced knowledge managers seek advice in the first instance. The extent to which they evaluate the wisdom of advice received hopefully will develop over time, but at the outset any help is valuable.

What is clear is that most people now when confronted with a lack of information will search (or surf) the common sources such as Google. Invariably they will end up with Wikipedia. Many use social networks almost continuously, so in one sense

they will be experienced seekers and sharers of information, albeit informally. I would coin the term ‘embryonic PKM (Personal Knowledge Management) for their present status. Frand and Hixon (1999) first offered the concept of PKM, though there is some scepticism as to whether this is really PIM, personal information management. Despite this I would argue they have a culture of seeking information, though whether this is actionable, hence knowledge is in some doubt. Actionable also implies reflection on action and feedback. The best professionals, Donald Schön (1995) maintained, know more than they can put into words. Still given this seeking culture, what are valuable sources for the new knowledge manager?

### **An exploration**

I receive regular postings from three KM website I subscribe to. They are KM World, a KM practitioners group and Knowledge Management. The latter two are Linkedin related.

I decided to monitor these postings over a period of one month to assess the usefulness of advice offered in discussion threads and the topics covered from the standpoint of the inexperienced knowledge manager. First I make some general observations.

KM World proved to be of limited value, there were only nine postings, and of these seven were encouraging attendance at their annual conference. The site is useful if taking courses was the intention, but for my purpose I decided not to subsequently include it.

The KM practitioners group I am a member of had sixteen postings. Of these most were related to two topic discussions. One discussion was initiated by Terrence Wallenhorst, a Knowledge Business Manager, Consumer Practice at The Boston Consulting Group. The topic, ‘How do you incentivize and recognize employees for participating in the knowledge sharing culture?’ looked at the barriers in fostering a knowledge sharing culture by engaging employees in such a way that they willingly (proactively?) contribute their knowledge and materials for others to leverage. This discussion was already two months old when I started monitoring and had elicited twenty comments by that time. The second topic “To Gamify or not to Gamify” was initiated by Mark Szalkiewicz, Americas Knowledge Management PM at Microsoft. He was hoping to learn about experiences in using gamification to drive behavioural change and achieve results. This posting was about one month old when I started monitoring, and had already received over twenty comments and suggestions. While KM practitioners group is an excellent site, it is unlikely that a novice would choose to follow it, so I have restricted my attention to the third site.

The third site Knowledge Management had twenty eight postings during the month of monitoring, mostly on different topics. Sometimes a discussion appears on both Knowledge Management and KM practitioners group sites as they are both Linkedin based. Sometimes advice was to direct to other members of Linkedin who are not necessarily followers of either site.

The table below is my calendar record of postings on two of these sites. The subsequent discussion will only address the Knowledge Management website.

Date	KM practitioners group website	Knowledge Management website
11/09	How do you incentivize and recognize employees for participating in the knowledge sharing culture?	
12/09	How do you incentivize ...	Taxonomy Drafting Tools - Which Do You Use? (Is there something better than Excel?)
13/09	How do you incentivize ...	Where Search & Discover Solutions Fit in Product Development
14/09	How do you incentivize ...	
15/09	How can we relate the learning development against plant incident in oil and gas industry?	
16/09	The pioneering “Big History” idea that Bill Gates is pushing for High School students overlooks an...	Decision-making seen as real-time KM
17/09		Experiment: how social networking can help leverage recognition in KM
18/09		Knowledge Management in Social Sector
19/09	Digital transformation - is it happening, and how does it impact KM & CX?	It Takes a Mentor
20/09	Would you say, and to what degree ISO standards (ISO9001, ISO2000), Business Excellence and...	Would you say, and to what degree ISO standards (ISO9001, ISO2000), Business Excellence and...
21/09		Facebook Is An Acceptable Way to Serve Legal Papers, New York Judge Rules
22/09	To Gamify or not to Gamify	Facebook Is An Acceptable Way to Serve Legal Papers, New York Judge Rules
23/09		
24/09	To Gamify ...	Interesting article about knowledge sharing
25/09	To Gamify ...	The Mathematical Nature of Knowing
26/09	To Gamify ...	Is it time to invest in decision making training and education?
27/09	To Gamify ...	IF IT AIN'T BROKE, DON'T FIX IT! But what if it IS broke - and DOES need fixing? With a business proposal, you win the argument - but...
28/09	To Gamify ...	Crowdsourcing contributions: Why is KM important to you?
29/08	SABA People Cloud for knowledge management and collaboration. Any thoughts? How do you use it for KM?	The Knowledge Profit. The New Leader for Our Times
30/09		Crowdsourcing contributions: Why is KM important to you?
01/10		Following on from our discussion on Information as an Asset
02/10		Experience with KM in a scientific research institution ?
03/10		Why workers still use email instead of available social platforms
04/10		What would be the most recognized and complete certificate / online course in KM out there?
05/10		Any examples of a KM assessment framework?
06/10		Call for your expert opinion in KM
07/10		Please your attention for the following
08/10		Contribution sought for book on Social Knowledge Management
09/10		When Is a KM Community of Practice Superior to a Single Expert?
10/10	Call for your expert opinion	What are the key personal and professional qualities of a new KM practitioner?

## Discussion

This discussion will take three postings from the Knowledge Management website which appear useful to new knowledge managers. The others would appear equally useful but for the sake of paper length , I have made an arbitrary choice.

### **Post#1** Decision-making seen as real-time KM

By Rémy Fannader Author, Founder & Owner of Caminao

*Abstract- Between Internet-of-Things and ubiquitous social networks, enterprises' environments are turning into unified open spaces, transforming the divide between operational and decision-making systems into a pitfall for corporate governance. That jeopardy can be better understood when one considers how the analysis of events affect decision-making.*

Full article at <http://caminao.wordpress.com/2014/09/09/events-meaning/>

#### Comment

This is quite a challenging paper and from the comments tends to appeal to experienced practitioners. However new practitioners can take some important lessons. First the limitations of environmental scanning. There is a quote from Donald Rumsfeld "...decision-making is all about the distinction between things we know that we know, things that we know we don't know, and things we don't know we don't know." Fannader make the point that perfect information would guarantee risk-free future and would render decision-making pointless. As a corollary, decisions based on unreliable information entail risks that must be traced. I think all practitioners should accept the observation by Charles Babbage that "Errors using inadequate data are much less than those using no data at all."

### **Post#2** Experiment: how social networking can help leverage recognition in KM

By Jose Carlos Tenorio Favero, Head of Knowledge Management-GMD SA (Graña y Montero)

*Abstract - From various years ago, users have become accustomed to being informed about topics which companies want to tell us, it is clear that in order to do so they have used publicity in television, radio, even on various web pages, but they are all static messages. And the voice of the user, when does it shine?*

Full article at [globalknowledgemanagement.org](http://globalknowledgemanagement.org)

#### Comment

Facero says in his article "For some time now I have been thinking about new ways to recognize employees that participate in Knowledge Management activities, and thinking about the impact of the photo, I understood that a work recognition shared in social networks had surpassed the work borders."

The photo he is referring to is the one that will also figure in this conference of groups of delegates. His experiment was he posted it on, I presume, Facebook and received lots of likes, but also many motivational messages. His point is about recognition, a crucial component of KM. New practitioners must accept part of their role is motivating the workforce. Resistance to change is inevitable, despite any directive from top management. Plenty of KM research evidence ranks recognition as the prime motivator.

### **Post #3** Knowledge Management in Social Sector

By Daniel Bassill, President, CEO at Tutor/Mentor Institute, LLC

*Abstract - Innovation is enhanced when you can look at what other people are already doing to solve the same problem you have been trying to solve. In this PDF step one focuses on knowledge management while steps two and three focus on ways to increase the number of people involved in this problem solving, and who help people use the knowledge to support youth, and youth serving organizations in many neighborhoods of big cities like Chicago.*

Full article at <http://tutormentor.blogspot.com/2014/09/knowledge-based-problem-solving-what-is.htm>

#### Comment

Bassill makes the point that in organisations there are Vertical Networks where the unifying factor is a vision, a shared purpose. This could be the use of KM practices throughout a business. There are also Horizontal Networks where the unifying factor is an event, a meeting place, a common interest, such as a community of practice, a specific department. He identifies several stages where horizontal networks can help to achieve the aims of the vertical network.

My own experience of knowledge fairs, community of practice festivals suggests this is an effective strategy to roll out KM in organisations, and is supported by a lot of practical experience.

### **End Piece**

I have viewed the messages from the front via three websites. I have chosen one I have monitored for a month. From its twenty eight postings in that time, I have simply taken three, the tip of the iceberg, for more detailed examination. What have I learnt? There is a phenomenal amount of practical information available, given willingly, for free, available to anyone who wishes to use it. In future I will simply direct those seeking knowledge to these excellent sources.

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## Mindtree: A Case Study on Communities of Practice

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### Abstract

The era of knowledge-based economy in which we live in today has brought forward the increasing popularity and wide acceptance of knowledge management discipline. As knowledge cannot be managed per se because it resides in an individual's head, then it is important to create a supportive environment to facilitate knowledge creation and utilisation. One of the means to create such environment is through the establishment of communities of practice. The purpose of this article is to examine the role of communities of practice in helping an organisation achieves its objectives. The method used in this article is an analysis on Garvin and Tahilyani's case study paper about Mindtree, an Indian company which is considered to be quite successful in implementing communities of practice. The result of the analysis suggests that in order for communities of practice to perform more effectively and contribute more to the organisation directly, they must be nurtured and rewarded. One way to do this is by making communities of practice core to the organisation's operational activities. The case study demonstrates how knowledge management systems and communities of practice are brought one level forward from their current state to contribute more to the business itself, as measured by the bottom line.

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*Keywords:* knowledge management; communities of practice.

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### 1. Introduction

Knowledge-based economy or knowledge economy is the term used by many to describe the era in which we live in today. A definition of knowledge economy is "...one in which the generation and exploitation of knowledge has come to play the predominant part in the creation of wealth. It is not simply about pushing back the frontier of knowledge; it is also about the most effective use and exploitation of all types of knowledge in all manner of economic activity." [1]. This definition implies that organisations can no longer rely solely on their physical or tangible assets in order to be successful; rather, it is intangible assets (knowledge as the main emphasis) that are considered to be more important for organisations' survival.

Intangible assets can be classified into 3 categories [2]. The first category is intangibles for which property rights are relatively clear and markets exist, e.g. patents, copyrights, data bases. The second category consists of intangibles that are controlled by the firm but there may not exist well-defined and legally-protected property rights and markets, such as business processes and R&D in process. Finally, the last category is for intangibles for which the firm has few (if any) control rights and markets do not exist since these intangibles are tied to the people who work for the firm. This last category is often referred to as intellectual capital, which generally consists of human assets, structural assets, and relational assets. Knowledge could be considered as belonging to the third category, specifically the human assets component.

Realising that intangible assets are now becoming more important than tangible ones, managing knowledge has turned out to be the top priority in many organisations. After all, other categories of intangibles sourced from the knowledge itself. One way to manage knowledge is via communities of practice. Communities of practice (hereafter referred to as CoP) have

emerged as an important aspect in an organisation's knowledge management systems. It is believed that CoP facilitate knowledge creation and sharing, as well as help the organisation accomplishes its goals. This article builds on from a case study of a company named Mindtree, an Indian IT industry which is considered to be quite successful in managing CoP.

This article is structured as follows: section 2 discusses the theory of knowledge management and CoP, followed by a brief overview of the case study company in section 3. Knowledge management systems and CoP at Mindtree are discussed in sections 4 and 5, respectively. Section 6 addresses the 5\*50 initiative implemented by the company and the last section provides conclusions as well as recommendations.

## 2. Literature Review

### 2.1. Knowledge Management

There are several alternatives when it comes to defining knowledge management (KM). Table 1 provides some of them. Although varied, there is one common theme underlying the listed definitions of KM: the process of utilising knowledge which involves various disciplines to help an organisation attains its objectives. Figure 1 exhibits KM dimensions.

Recognising and understanding the interdisciplinary nature of KM is the root to a successful KM. Individuals within an organisation should not be limited to think only from their own disciplines' point of view, but they must be able to broaden their perspective to encompass other disciplines' viewpoint as well [1].

The success of KM in an organisation relies on several dimensions as portrayed in Figure 1. The first one is the existence of well-established systems and information technologies to enable effective utilisation of knowledge, which in general consists of KM tools (such as e-learning tools, data mining tools) and KM systems (such as decision support systems, customer relationship management systems). The next dimension is related to organisational learning, which can be defined as "... the process of improving actions through better knowledge and understanding." [1]. This process can be achieved by exploring, exploiting, and sharing knowledge within but not limited to the organisation itself. Lastly, KM success is also contingent on cultural factors as KM deals mostly with humans. Implementing KM systems can be a significant challenge as most people are resistant to change. Therefore, a good leadership is needed to alleviate this concern. Provided that an organisation successfully manages these three dimensions, then it could achieve the strategic purpose of KM activities, that is to enhance intellectual capital and improve organisational performance. It is worth noting that knowledge cannot be managed per se as it resides in an individual's head; rather, it is the environment that must be managed to facilitate knowledge creation, translation, transfer, and mobilisation to achieve the organisation's objectives.

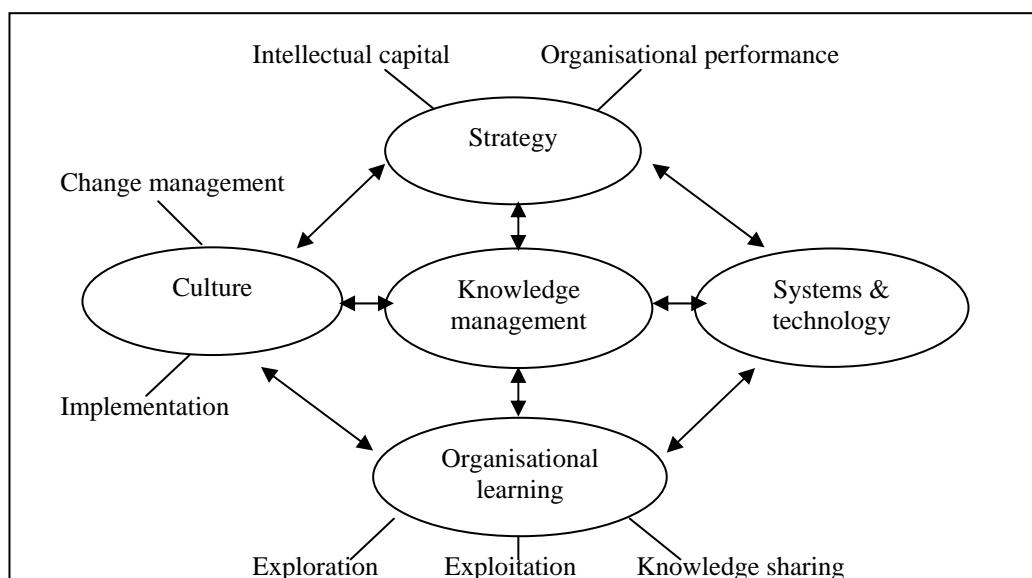


Fig. 1. Knowledge Management Dimensions [1]

Table 1 Knowledge Management Definitions [1]

Author(s)	Definition	Perspective
Davenport & Prusak (1998)	“Knowledge management draws from existing resources that your organisation may already have in place – good information systems management, organisational change management, and human resources management practices.”	Integration (information systems & human resources)
Swan et al. (1999)	“... any process or practice of creating, acquiring, capturing, sharing and using knowledge, wherever it resides, to enhance learning and performance in organisations.”	Human resource process
Skyrme (1999)	“The explicit and systematic management of vital knowledge and its associated processes of creating, gathering, organising, diffusion, use and exploitation, in pursuit of organisational objectives.”	Human resource process
Mertins et al. (2000)	“... all methods, instruments and tools that in a holistic approach contribute to the promotion of core knowledge processes.”	Information systems
uit Beijerse (2000)	“The achievement of the organisation’s goals by making the factor knowledge productive.”	Strategy
Newell et al. (2009)	“... improving the ways in which firms facing highly turbulent environments can mobilise their knowledge base (or leverage their knowledge ‘assets’) in order to ensure continuous innovation.”	Strategy
Jashapara (2011)	“The effective learning process associated with exploration, exploitation and sharing of human knowledge (tacit and explicit) that use appropriate technology and cultural environments to enhance an organisation’s intellectual capital and performance.”	Integration

## 2.2. Communities of Practice

Among several definitions of CoP that exist in the literature, the following definition could represent the meaning of CoP: “A community of practice is a set of people who share a concern, a set of problems, or a passion about a topic, who deepen their knowledge and expertise in this area by interacting on an ongoing basis” [3]. In other words, a CoP is a place or group whereby people regularly meet or gather to discuss certain issues; and as a result of this discussion, the members of a CoP improve their capacity and knowledge base. Members of a CoP share some sort of common language, as they have the same interest about a particular topic, which is related to their skills or capabilities [4].

Within an organisation, CoP can be regarded as informal networks to facilitate collaboration, knowledge sharing and building, as well as learning among its members [5], [6], [7], [8]. Therefore, based on the knowledge shared and created in CoP, members can collaborate (work together) to address a particular issue that may occur in the organisation, or to trigger ideas, insights, or suggestions that will benefit the organisation as a whole. Essentially, this is the value of a CoP: how far it can help the organisation it resides in to accomplish its goals [8]. Such value is made possible as members experience a sense of identity and belonging by being a part of CoP, which is then translated into prioritising the organisation’s goals [4]. Thus, nurturing CoP in an organisation can be viewed as an approach in addressing the more competitive and dynamic environment where the organisation lives in at present times.

Building on from the discussion above, a CoP qualifies to be referred to as “ba”, since it accommodates the knowledge creation which serves as the basis to enrich individual as well as collective knowledge within an organisation [9]. CoP facilitate the interactions between tacit and explicit knowledge, hence they can act as originating, interacting, exercising, and cyber ba. Further discussion about this is discussed in section 5.

CoP have three essential characteristics [3], [6], [8]. First, there must be a domain, which basically implies certain competencies that must be possessed by the members. This domain creates a common ground for collaboration and knowledge sharing. Members of a CoP therefore cannot consist of random individuals within an organisation, they must have common language. The second characteristic is the community, where members can collaborate and engage in activities and discussions to build trust and relationships. This characteristic is important, because in order for a CoP to perform its intended function effectively, there should be trust and good relationships among members. Lastly, a CoP must

have a practice that is shared and held by its members. This practice is developed and utilised in response to a particular issue or problem encountered by the organisation.

The distinctions of CoP compared to other groups in an organisation are summarised in Table 2. Compared to others, CoP are informal group which do not have specific targets and timelines; they are formed simply to facilitate members to share knowledge related to their expertise. In spite of this informality, CoP hold an important role in making tacit knowledge explicit and embedded in organisational practices, thus making the knowledge ‘sticky’ and hard to be imitated by competitors [1]. Some of the benefits offered by CoP are that they help drive strategy, start new lines of business, solve problems quickly, transfer best practices, develop professional skills, and help companies recruit and retain talent [1].

Despite the benefits offered, there is one caveat of CoP, that is they “... may become self-reinforcing and self-deluding, turning core competencies of an organisation into core rigidities.” [1]. In other words, CoP could become an end in themselves. To address this risk, CoP must employ the ‘perspective taking’ approach, in which CoP are willing to interact with other communities to broaden their perspective so that they do not operate in isolation [1].

With respect to relating CoP and KM, CoP could fit into the organisational learning dimension in Figure 1. To gain the full potential of CoP, an organisation must introduce and maintain knowledge-sharing culture among its members. An ideal CoP should also be supported by information systems and technology. All these elements are essential to the success of CoP, as experienced by the case study company.

Table 2 Communities of Practice versus Other Groups in Organisations [1]

	Formal groupings ‘canonical practice’		Informal groupings ‘non-canonical practice’	
	Work group	Project team	Informal network	Community of practice
<i>What is their purpose?</i>	To deliver a product or service	To accomplish a specific task	To collect and pass on business information	To develop members’ capabilities; to build and exchange knowledge
<i>Who belongs?</i>	Everyone who reports to group’s manager	Employees assigned by senior management	Friends and business acquaintances	Members who select themselves
<i>What holds it together?</i>	Job requirements and common goals	Project’s milestones and goals	Mutual needs	Passion, commitment and identification with the group’s expertise

### 3. Methodology

This article analyses Garvin and Tahilyani’s [10] case study paper about Mindtree, an Indian company which is considered to be quite successful in implementing communities of practice. Mindtree is an Indian IT-BPO (information technology-business process outsourcing) company which has both low and high end services. As known by most people, India has been successful in becoming a global technology and outsourcing hub. Mindtree tries to differentiate itself from competitors by using its culture as a “soft differentiator”. Its aim is to build a company with two specific focus areas: e-business consulting and implementation on the enterprise side and product realisation services in the networking domain on the technology side. With respect to the organisational structure, Mindtree adopts a matrix structure in which most employees are allocated either to industry verticals or technology horizontals. The company enjoyed a rapid early growth, however the growth had been gradually subdued due to economic crisis. Mindtree reacted by adjusting its business to focus more on steady revenue from long-term yet low-end work, such as maintenance and testing. It also set a revenue target of \$1 billion by 2014. In the following sections, Mindtree’s KM systems and CoP are discussed, along with one of the initiative that was introduced by the company in order to accomplish its \$1 billion revenue goal.

## 4. Knowledge Management Systems at Mindtree

Mindtree adopts a holistic, encompassing approach to KM, where KM serves as a facilitator or an enabler for people to develop and improve their capacity [10]. It is therefore apparent that people are not regarded as a commodity at Mindtree [11]. Moreover, KM systems at Mindtree focus on developing intellectual capital which is essential in delivering innovation, hence better equip the company to face intense competition in the marketplace [12]. KM systems at Mindtree consist of three levels, namely systems to share knowledge, collaborate, and help with innovation; which are aimed to create a comprehensive knowledge ecosystem as described by Nonaka's ba: social, mind, virtual, and physical space [9].

### 4.1. The Key Elements

#### 4.1.1. Values

As stated in the preceding section, Mindtree's competitive advantage compared to its competitors lies on their culture and values. Therefore, KM systems should be firstly based on the company's values. These values are translated into a statement called CLASS (Caring, Learning, Achieving, Sharing, and Social Responsibility), which are then acknowledged within the company by integrating them into the company's activities. As a result, everyone in the company internalises and shares these values. To preserve these values in the future, Mindtree develops a leadership succession program called The Gardening. Led by Mindtree's vice chairman, this program is designed to nurture and prepare the top 100 people at the company to become future leaders.

#### 4.1.2. CoP

The second element underpinning KM systems at Mindtree is CoP, which demonstrate the socio-technical approach to KM as adopted by Mindtree [10]. This approach relies on social interactions between employees to share knowledge and collaborate. The interactions can happen essentially anywhere; nevertheless community meetings provide a somewhat formal means whereby people can interact with one another. At Mindtree, there are four levels of community maturity model, which will be explored further in section 5.

#### 4.1.3. Information Technology (IT) systems

Although Mindtree's KM systems focus heavily on culture and social networks (CoP), they do need IT to support these two elements of KM. Several IT systems that present at Mindtree are KnowledgeNet, Connected Minds, Open Mind, ProjectSpace, Neuron, and Kernel initiative on project management [10]. Figure 2 depicts KM systems at Mindtree along with the IT systems that support each level.

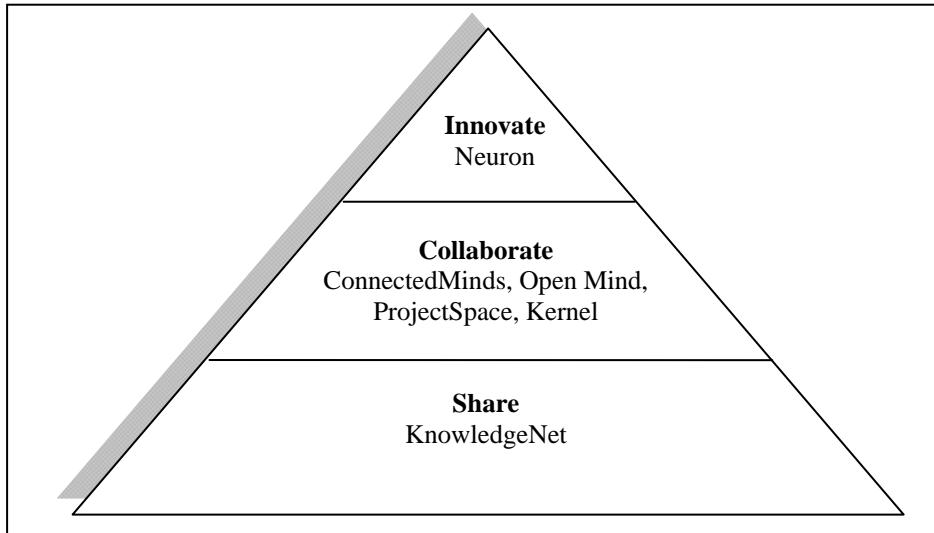


Fig. 2. A Hierarchy of KM Systems at Mindtree [10], [11]

#### 4.2. The Linkage between Elements

Each of the KM elements at Mindtree as discussed above does not stand on its own, instead they are linked one another. CoP are one of the means to share and nurture the company's values, as well as the place whereby knowledge can be created, shared, and transferred. These processes are supported or accommodated by IT systems developed by the company. Figure 3 exhibits this linkage.

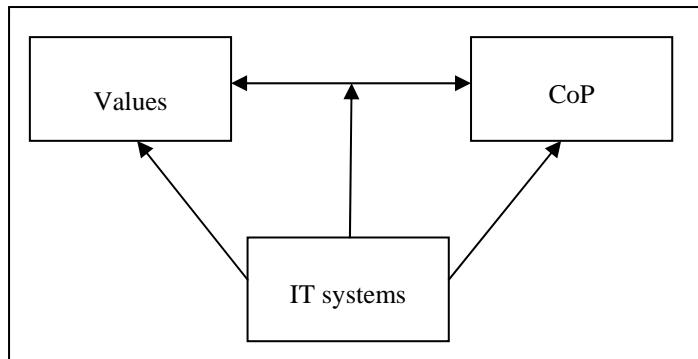


Fig. 3. The Linkage between KM Elements at Mindtree

#### 4.3. Assessing the Effectiveness

To some extent, KM systems at Mindtree have performed quite effective. First, unlike most organisations where KM is viewed as a separate entity, at Mindtree KM is regarded as a strategic initiative. Mindtree employs a human-centric and holistic approach to KM, in which KM is integral to the organisation. Also, the numerous KM-related awards that Mindtree has received provide empirical evidence that KM systems at Mindtree have been successful and acknowledged by external parties [10], [12]. Third, with regards to the company's values, the majority of employees adhere with those values; whereas as far as CoP concern, there are over 55 CoP at Mindtree and the majority of employees are members of at least one of them [10]. These facts demonstrate that employees at Mindtree internalise the company's values and have a sense of belonging to the community which in turn facilitates collaboration.

However, despite the success of Mindtree's KM systems as mentioned above, they are not flawless. There are perceptions from senior managers about the lack of impact that KM brings to the business itself. Thus far, KM has done well with respect to improving the delivery process and other internal activities. On the other hand, KM has not been able to impact other externally-oriented domains, such as sales and customer acquisition. To address this issue, Mindtree has planned an initiative in KM systems that would allow external parties to be more involved in Mindtree's knowledge activities. Drawing on from this plan, it can be deduced that Mindtree aims to improve the interactions of three families of intangible assets: external structure, internal structure, and individual competence. The interactions are pointed towards increasing leverage that will have a direct impact on business [13]. Therefore, KM systems would contribute more directly to the business itself. These interactions are shown in Figure 4.

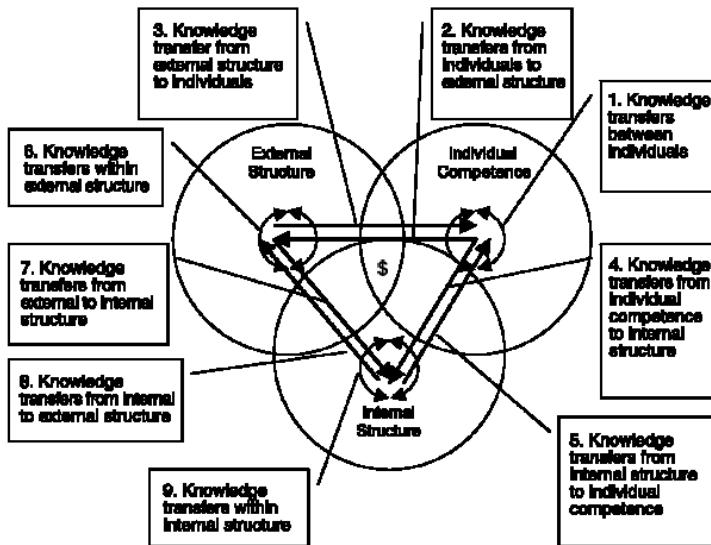


Fig. 4. The Nine Knowledge Transfers [13]

## 5. Communities of Practice at Mindtree

At Mindtree, CoP are an integral part of KM systems: a CoP is a place where knowledge is created and shared, and employees can collaborate better via social interactions that take place. CoP have become inherent at Mindtree that the firm is described as a “community of communities” [10].

### 5.1. The Roles

CoP at Mindtree serve as an enabler or facilitator to knowledge environment [10]. This concept is what Nonaka and Konno [9] referred to as “ba”. CoP at Mindtree proceed further than ordinary social interactions because the concept of knowledge creation and sharing is embedded in CoP. In addition, CoP also provide a means to connect employees who are geographically dispersed. There are four levels of CoP at Mindtree, each of which can be associated with the concept of ba:

#### 1. Community of interest

At this stage, the aim of CoP is focused mainly on sharing an interest without any intention for learning. This is similar to “originating ba” and represents the socialisation phase in the knowledge creation process as described by Nonaka and Konno [9].

#### 2. Competency building

At this second level, not only peer-to-peer interactions that take place, but community objectives also start to be stated explicitly. Hence, this level is equivalent to “interacting ba” and externalisation phase.

#### 3. Capability building

Here, CoP advance further by creating relationships between communities and other organisational entities, hence bring impact to the company as a whole. The company is creating “cyber ba” that facilitates the combination stage.

#### 4. Capacity building

On the top of the pyramid, CoP would be expected to interact with external parties with the purpose of exchanging knowledge. With respect to the knowledge generating process, this is equivalent to internalisation, which is facilitated by “exercising ba”.

Figure 5 exhibits the four characteristics of ba, whereby Figure 6 displays the community maturity model at Mindtree linked with the four ba and also the knowledge generating process.

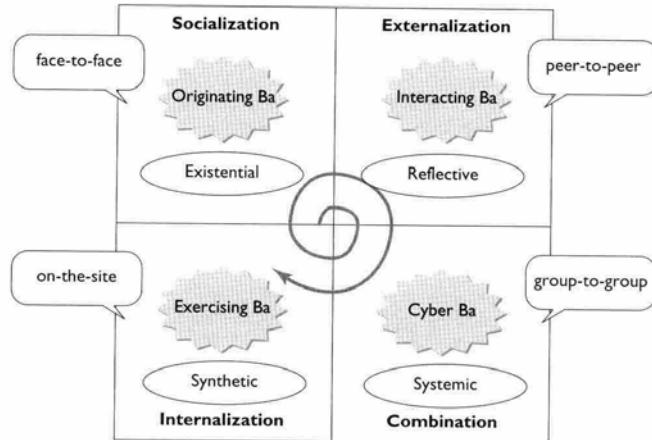


Fig. 5. The Four Characteristics of Ba [9]

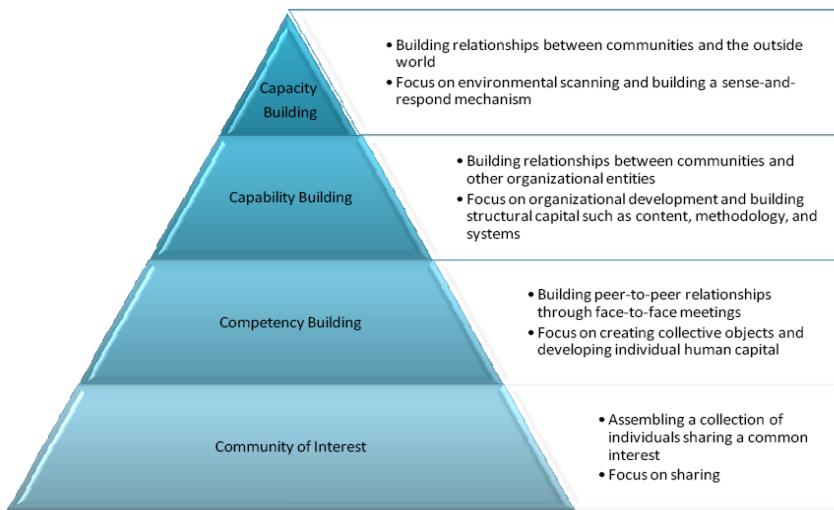


Fig. 6. Mindtree's Community Maturity Model [10]

## 5.2. Assessing the Effectiveness

The effectiveness of Mindtree's CoP can be evaluated by using the criteria of successful CoP as proposed by Iaquinto, et al. [8], which consist of: a sense of ownership of CoP; a willingness to participate, collaborate, and share expertise in meetings as well as outside; and the identification of gaps in their knowledge and attempts to fill those gaps. As far as these criteria concern, CoP at Mindtree have been performing reasonably well by demonstrating the attributes mentioned. However, a very successful CoP is difficult to achieve in nature, as employees must also perform their day-to-day work in addition to participating in CoP [7], [10]. Nevertheless, this issue can be managed by integrating CoP into employees' daily activities, although this is not an easy task to do. Furthermore, there is an issue of how far CoP should contribute directly to the business itself, which is still not unanimous at Mindtree. Thus, the effectiveness of CoP relates with the extent to which CoP accomplish the business and community objectives [7]. While Mindtree's CoP have been effective in performing the later, it is still lacking in the former, which is meeting the business objectives.

### 5.3. Suggested Improvements

Mindtree realises that its CoP have not been performing at the highest effectiveness potential. Therefore, to some extent, Mindtree has tried to improve the effectiveness of its CoP by organising the Community Champions Meet forum, which is aimed at connecting the communities more to the organisation as a whole. This initiative is pointed towards the capability building stage as shown in Figure 6 above. Ideally, there should be more CoP residing in the upper stage of the community maturity model so that they can bring positive impacts to the organisation as well external parties.

In addition to the existing practice, Mindtree might also want to consider the following predictors [7] to enhance the effectiveness of CoP:

#### 1. Legitimacy

This aspect draws from the result that CoP which are considered as core or central to the organisation's operations (whereby bottom line is the most common indicator) performed more effective.

#### 2. Peripherality

The key feature of this second element is task interdependence, which states that the higher the levels of integration of CoP members with their communities, the more effective CoP are.

#### 3. Participation

This last factor is achieved when members understand the objectives of the community and get involved in it. The effectiveness of participation can be measured by community empowerment (high commitment to CoP despite the busyness of daily and formal work) and community-oriented external leadership (the existence of an external leader to help members becoming more engaged in CoP).

In brief, Mindtree could improve the effectiveness of its CoP by making them core to the organisation, increasing the level of members' integration to the communities, empowering the communities, and developing a community-oriented external leadership to monitor the communities and give an "outsider point of view" so that CoP will not operate in isolation, as mentioned in section 2. The following figure summarises this relationship.

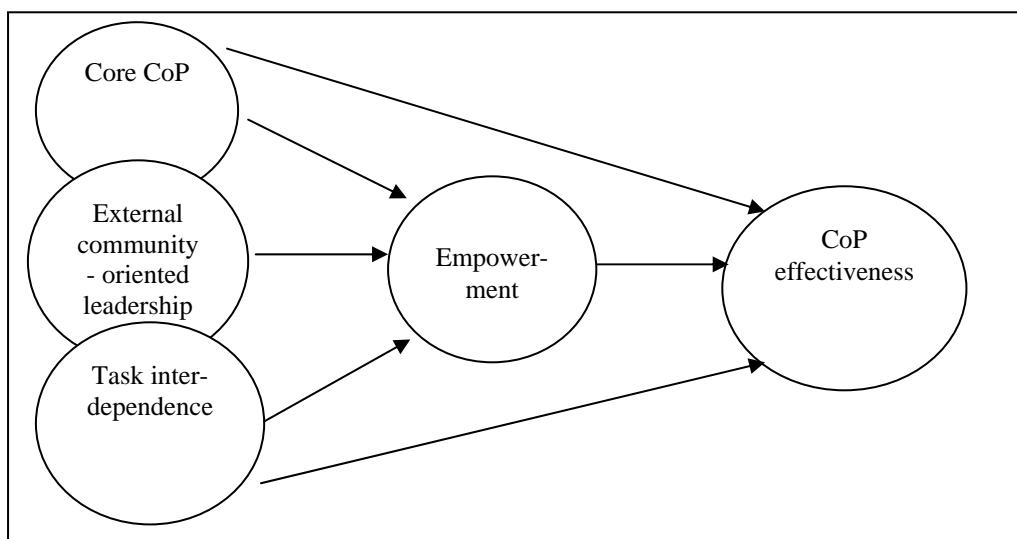


Fig. 7. The LPP (Legitimacy, Peripherality, Participation) Theory to CoP Effectiveness [7]

## 6. The 5\*50 Initiative at Mindtree

In 2009, Mindtree announced its goal to become a one billion dollar company by 2014, stepping further from a mid-tier player into a large player in the IT industry. The company strives to achieve this objective by using three strategies, one of which is by initiating the 5\*50 program. This program invites all employees to create a \$50 million business idea, in which five best ideas will be developed further to contribute to the attainment of one billion dollar company. As a result of this initiative, KM and CoP at Mindtree would be affected.

### 6.1. Impact on Knowledge Management

The impact of 5\*50 initiative to KM is related to assessing the effectiveness of KM as discussed in section 4. Despite the fact that KM at Mindtree has performed quite effective, there is still a gap between KM and its impact on business. In order to bridge this gap, innovative solutions need to be developed, and the 5\*50 initiative can be regarded as providing the link between KM and the ultimate business objective itself (bottom line as the most common measure).

Support from KM is very critical in order for the initiative to run well. Firstly, IT systems as one of the KM elements play a key role through Neuron to facilitate the innovation process. Secondly, KM function is expanded by the existence of Innovation Council to nurture and develop new ideas. Thirdly, KM also supports the 5\*50 initiative by developing the content for the mini-MBA program.

In summary, as a result of the 5\*50 initiative, KM is brought one level forward from building the KM infrastructure to assisting business strategies. KM will experience an evolutionary process from being focused primarily on internal aspects and building individual competencies to encompassing external parties as well. This is supported by the plan to link Neuron to ECM system (Enterprise Content Management) to streamline the interactions with external parties. It is apparent that Mindtree strives to optimise the interactions among internal, external structure, and capabilities to maximise the value creation capacity (leverage) of the whole system to achieve the strategic purpose of profitability [13].

### 6.2. Impact on Communities of Practice

Mindtree's CoP are affected by the 5\*50 initiative in several aspects. Prior to initiating the program, CoP resembled informal groups which were treated differently from other functions within the organisation and did not appear on the organisation chart. In addition, it was not compulsory for CoP to yield organisational output and there was no measurement to assess the effectiveness or contribution of CoP to the organisation as a whole [10]. This traditional state of CoP would not likely be the same after the inception of 5\*50 initiative. CoP provide a means whereby members can share, develop, and nurture their business ideas related to the initiative, in which the output can be measured by evaluating the contribution of the ideas to the company's profitability. In this regard, CoP are positioned as core to the organisation's operations [7]. Having said that, by no means that CoP thus become a formal part in the organisation chart. To the least extent, informal CoP would be nurtured, supported, and rewarded [3] as a result of the initiative.

Also, such an intrapreneuring initiative, as termed by Mindtree's executive chairman to refer to the 5\*50 program, could be viewed as enhancing the capacity building level in the community maturity model, which focuses on innovation, creating new competencies and capabilities. Thus, the communities would make a progress towards the highest hierarchy in the model, as currently no community is considered to exist at such level. The initiative provides a space for exercising ba which supports the internalisation phase in the knowledge creation process. Hence, CoP are taken one step further as a result of the initiative.

The 5\*50 program can also be viewed as an approach to enhance community empowerment so that CoP can perform more effective. Community efforts at Mindtree would be directed towards the achievement of \$1 billion company. Specifically, this is an example of external boundary spanning oriented, that ensures the alignment of community efforts with the organisation's mission or initiatives [7]. To sum up, the existence of 5\*50 initiative reinforces the role of CoP in knowledge generation and sharing which contributes positively to the company's success [3].

## 7. Conclusions and Recommendations

The discussion thus far emphasises the importance of having CoP in an organisation. CoP act as "ba", which serves as a platform for knowledge creation and sharing, hence CoP are an integral part of KM systems within an organisation. In order for CoP to perform more effectively and contribute more directly to the organisation, CoP must be nurtured, supported, and rewarded. One way to do this is by making CoP core to the organisation's operational activities, just like what Mindtree did with the 5\*50 initiative.

It is also worth noting that all Mindtree's employees are involved to create business ideas to help the company achieves its mission; the responsibility is not limited to certain functions or certain people only. This is a lesson of collaboration and employee empowerment in an organisation, which is expected to deliver a better outcome. Another lesson that can be derived is the significance of interactions between internal structure, external structure, and capabilities to maximise the leverage which could create competitive advantage in the marketplace. As a postlude, the case study demonstrates how KM and CoP are brought one level forward from their current state to contribute more to the business itself, as measured by the bottom line.

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## The Effect of Affiliation, Level of Satisfaction and Innovation to Knowledge Sharing in Economic and Business Faculty, Telkom University

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### Abstract

Knowledge sharing is an important thing that every institution to be done, especially higher education institution. To get students with an excellent quality, every lecturer in higher education institution needs to improve their knowledge. Working climate factor influences the process of knowledge sharing. Conducive working climate and a good relationship within member's in-group will also affect the communication process, so the information exchange process will do well. This research using descriptive method and quantitative correlation. The aim of this research is to determine the effect of affiliation, level of satisfaction and innovation to knowledge sharing in Economic and Business Faculty, Telkom University.

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**Keywords:** Knowledge Sharing, Working Climate

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### 1. Introduction

Everyone in organizations need knowledge and not everyone have same information about something they need in work. Knowledge sharing process will improve every member in an organization, and also will improve the interaction between members. When organization can facilitate their member's need for knowledge, so they will try to give some positive contribution to the organization, and at the end will also improve the employee's performance and organization's productivity.

According to Hendrik (in Shofa, 2008) knowledge is a combination between data and information with intuition, experience, ideas and motivation from competence sources. There are two types of knowledge, tacit knowledge and explicit knowledge. Tacit knowledge is something stored in human brain, while explicit knowledge is something stored in document or other storage beside human brain (Uriarte in Shofa, 2008). Kosasih (in Shofa, 2008) said knowledge management become guidance about intangible assets management and become a main pillar for an organization in creating values.

Creating values in an organization is not only from tangible asset like current assets and fix assets but also using intangible assets like knowledge. According to Drucker (in Musazdin, 2012) basic from economic resources is not only from natural resources, capital, machine, human resources but also knowledge.

We need a long process and time to optimization for implementing Knowledge Management (KM). One of the activities from KM is Knowledge Sharing (KS), where every employee communicates, share and doing knowledge transfer. Without sharing, learning process and knowledge creation will inhibit and utilization of scale from knowledge will also restricted and there will be no increasing value, because knowledge only used by limited person or unit (Musazdin, 2012).

KS become needs for every organization to improve employee's performance and organization's productivities. Faculty of Economic and Business (FEB) is one of seven faculties in Telkom University that also make knowledge become a first priority for every employee, especially lecturer. Not only because FEB is in education institution but also for improving the quality from all members, students and lecturer. Right now, in FEB there are three program studies, Management Business, Accounting and Master of Management.

There are some factors can affect KS process, such as working climate. Good working environment influenced by a good working climate, so KS process will work properly with communication and cooperation between employees in the organization. Based on a simple explanation in background, this research has some research problem such as:

- a. How is working climate's condition in FEB?
- b. How is knowledge sharing's' condition in FEB?
- c. How is the influence of working climate to knowledge sharing in FEB?

## 2. Material and Method

### 2.1. Knowledge Management

Knowledge Management (KM) is a science that integrated to identification, remembering, share and evaluating any information in the organization. That information is collection of data, document, policy and procedure about something new and individual's experiences (Neilson, 2001 in Hall, 2003).

### 2.2. Knowledge Sharing

Tiwana (2002) in Sohail (2009) classify KM into three different processes, such as knowledge acquisition, knowledge sharing and knowledge utilization. KS can be identified as an exchange of experience, events, thought or understanding about many things with employee's expectation to get deeper knowledge about something. KS also can be seen as a communication, from many kind of knowledge, and there is some information about knowledge with explicitly in it, about 'know how' and 'know whom' (Hawamdeh, 2003 in Sohail, 2009). In this research, knowledge sharing is seen as a combination some point, such as:

- Characteristic of knowledge
- Working culture
- Behavior of employee
- Opportunity of share
- Motivation to share

### 2.3. Working Climate

According to Liang et al (2010) in Xue et al (2011), working climate significantly could be influence someone's insight, normative believes and technology application. Based on Bock et al (2005) in Xue et al (2011), working climate can be influence by three dimensions, such as affiliation, trust and innovation. Affiliation is perception about togetherness between members in an organization. It also becomes willingness from everyone in an organization to helping each other.

Trust can be defined as a willingness from every member to accept their own weakness with share competency and integrity from organization's members (Pavlou et al, 2007) at Xue et al (2011). Effective communication inside the organization is when trust and commitment become common (Te'eni, 2011) at Xue et al (2011). Trust between members inside organization will increase the willingness for working as a team.

Innovation in teamwork is based on change level and creativity, which is actively pushed in teamwork. Innovation in a team emphasized the need to learn, open for all information and responsibility (Bock et al, 2005) in Xue et al (2011). According to Kim and Lee (1995) in Xue et al (2011) members in an organization with higher innovation will empowered to share ideas, knowledge and information with all members compared to an organization with no innovation.

Research hypothesis:

There is a correlation between working climate, such as affiliation, trust, innovation and knowledge sharing in FEB.

## 3. Results and discussions

Based on statistical calculation using 48 samples, found that correlation between X and Y variable is:

$$Y = 1.310 - 0.86X_1 + 0.695X_2 + 0.074X_3$$

From the regression formula, affiliation ( $X_1$ ) has a negative correlation with knowledge sharing ( $Y$ ), but trust ( $X_2$ ) and innovation ( $X_3$ ) has a positive correlation with knowledge sharing. Based on the calculation, it can be seen that if KS activity increase, then affiliation will decrease.

#### A. Hypotheses Testing

Hypotheses testing using t test and F test for all variables.

Table 1. Variables Coefficients  
Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
1	(Co nstant)	1.310	.703	1.86 4	.069
	X1	-.086	.118	-.053	.466
	X2	.695	.092	.858	.000
	X3	.074	.219	.039	.738

a. Dependent Variable: Y

Based on t test, is known from all of X variable, there is only  $X_2$  found proven has an influence to knowledge sharing. It can be proven from significance level for  $X_2 0.000 < 0.05$ . Based on this result, trust element is significantly influencing knowledge sharing in FEB.

Variable  $X_1$  with significance point  $4.66 > 0.05$ , it can prove that there are no influence between affiliation and knowledge sharing. It also proves for  $X_3$ , which is innovation with significance level  $0.738 > 0.05$ , found that innovation is nothing to do with knowledge sharing activity in FEB. Hypotheses testing using F test shows the result:

Table 2. ANOVA Calculation  
ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.629	1.210	51.639	.000 <sup>b</sup>
	Residual	1.031	.023		
	Total	4.659			

a. Dependent Variable: Y

b. Predictors: (Constant), X3, X1, X2

Based on ANOVA table above, it can be known that variable  $X_1$ ,  $X_2$  and  $X_3$  simultaneously has a significance influence to  $Y$  variable, this can be proves from the value for significance level for  $F 51.369 > 0.000$ .

#### B. Coefficient of Determination ( $R^2$ )

Table 3. Coefficient of Determination  
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.882 <sup>a</sup>	.779	.764	.15305

a. Predictors: (Constant), X3, X1, X2

Using coefficient of determinant calculation, it found that as whole, X variable (Working Climate) provide a contribution to Y variable (Knowledge Sharing) for 0.779 or 77.9% and 22.1% caused by another factors which is not include in this research.

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#### 4. Conclusions

Based on theory and calculation above, as a result it found that as a whole, working climate has an influence with knowledge sharing in FEB Telkom University. But, if we see one by one, there is only trust variable that explain knowledge sharing, while affiliation and innovation does not have an influence with knowledge sharing.

For FEB, to increase knowledge sharing activity is important that every members or lecturers in the faculty have trust to each other. Every lecturer does not have the same knowledge and information, so information exchange is important. It also need for learning activity and research where everyone needs knowledge and information.

Trust variable has a strong connection with togetherness with all lecture, caring and helping each other. For this time, there are a lot of lecture in FEB with their own activity, so they are not have much time to sit together to do something together. For innovation, in this research is having a strong connection with affiliation. Innovation could not be appear in a working climate if there is no togetherness in a working climate.

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# The Strategic Roles of Knowledge Management Practices to Build Competitive Advantage of Credit Management in Bank Rakyat Indonesia

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## Abstract

*As a highly regulated industry, banking industry in Indonesia has been dynamically changed for the last decade due to increasing intensity of competition amongst players and volatility in customers' needs and perceptions. The challenging environment has put tight pressure to all banks to pursue and build new sources of competitive advantages in order to survive, grow, and prosper in the future. Banks all over the world have implemented Knowledge Management (KM) to create more value from their business processes and operational routines. As credit remains the backbone and core product for BRI, the bank has been intensively developing KM system in order to optimize the management of credits. Aiming at outperforming its rivals to give the best services to customers, KM system for management credit in BRI involves all staffs to gain, share, and empower knowledge so that they can support organizational learning to reach business goals. Previous internal research revealed that there was a positive correlation between the efforts to overcome credit problems and KM, and there was a positive correlation between KM and credit management. Based on these findings, the strategic roles of KM practices have been determined in this paper as related to the intention for BRI to build competitive advantages of credit management. The high potency of BRI to sustain competitive advantages through KM practices is supported with its strong corporate commitments to invest in human capital and sophisticated information technology.*

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## Key words:

Knowledge Management, Competitive Advantages, Credits Problems, Credit Management, Corporate Commitment, Information Technology

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## INTRODUCTION

Having been a reputable Indonesian commercial bank and the best state-owned company in 2013, Bank Rakyat Indonesia (BRI) has shown excellent performance of six-fold revenue achievement from IDR 95B in 2003 to IDR 606B in 2013. Moreover, profit growth within that decade has been increased eight-fold from IDR 2,58B to IDR 21,16B (as per December 2013). It is well recognized that the excellent performance of the bank has been supported by the availability of competent and professional human capital. Improving the competency of the people related to fund, loan, and fee-based has been the main challenge of BRI to outperform its rivals. Intensive learning program through systematic training and education has been essential for BRI in order to equip better skills and knowledge to its staffs, indicated by the allocation of 5% out of the total human resource expenses as the human capital investment in the formats of training and education programs for the staffs. Learning and educational centers have been established in some areas to educate the staffs to

become more reliable. In addition to improve the ability of the staffs, BRI also provides technological supports to improve access to information and reduce the processes of manual works into automatic so that the staffs can create more value of services to customers.

In accordance to the objectives of the Corporate Plan 2000-2015, BRI has lifted up its target to achieve a higher predicate as the best payment bank in Indonesia in 2015. Attaining these goals is not easy because BRI has to face more challenges of intense competition with the other commercial banks. Despite its serious efforts to improve the knowledge and skills of their staffs, the comprehensive programs are not fully integrated. Most of competitor performs the same programs as to obtain competitive advantage. Yet to gain future competitive advantage has been no longer relied on generic strategy such as increasing tangible assets in physical formats, but rather by leading to strengthen the intangible assets such as intellectual capital, knowledge, and competence. Knowledge management (KM) practices in an integrated banking has already been a common requirement, so if the KM practices in BRI remains unintegrated then most probably the bank can be left behind and outperformed by the rivals. In turn, it can be resulted in low standard of performance and productivity, as well as the dwindling of net interest margin.

## **PROBLEM IDENTIFICATION**

BRI is still relying on the method of knowledge creation and dissemination partially, unevenly, and out of date, resulted in the following problems:

- Knowledge management systems have not been well integrated.
- Policies, operational procedures, regulations, reporting, information about best practices are still in manual formats or already in electronic forms but still not integrated.
- The absence of on-line system that can keep intellectual capital, research data and other data, including confidential category that can only be accessed by authorized users.
- The absence of a system that allows staffs to conduct discussions electronically that can speed up the process of discussion and decision-making.
- The absence of electronic collaboration system that can lead to a more efficient paperless work.

The management of credit in BRI is still not optimal in the application, as described below:

- The required time to complete the loan package from the collection of customer data to the credit decision process sometimes passes a predetermined threshold.
- The limited number of Account Officers (AO) to handle so high work-load, from prospecting to customer data collection process, to the preparation of the analysis, to negotiation and to the monitoring.
- Access to get customer data and documents can not be placed on line among credit staffs in each working unit.
- The decision making process takes long time because of the absence of decision makers in the workplace. Loan Implementation Guidelines requires that the approval of loan application is taken by Loan Committee performed by its members together at the same time, but due to the busyness of each member of the committee the committee's decision often delayed.
- Monitoring of credit can not be carried out in an integrated manner among the proponent, analysts and breakers.

## **LIMITATION OF PAPER**

In consideration to the above identified problems, the author limits this paper on the efforts to optimize the management of credit, given the current situation that BRI is still relying on loans as the main source of income. This is reflected in the total assets of Rp. 606 trillion in 2013, which has been disbursed in the form of loans amounting to Rp 431 trillion or 71% of assets in form of loan. It is inevitable that 87% of BRI total revenue is derived from interest income from loans. In other words the core competency of BRI is still on the credit management. For that reason, BRI has targeted its expansion of credit in 2014 up to 15% -17% higher as compared to 2013, yet for SME loans, BRI will grow at range of 21%. The high target expansion required BRI to compete more aggressively with other banks in gaining market share in loan segment. In December 2013; BRI loan market share was still around 12.24% of the total share in Indonesia with a nominal value of Rp. 431 trillion. Intense competition in the loan segment needs to be supported by optimal credit management, but until now the credit management process remained conventional. Often the prospected customers switch

to other bank because the decision process for approval is too long while the loan applicants need the funds in very near future. Further analyses of this paper will not cover the technical aspects in the field of information technology, but the author will provide the alternative applicable solutions.

## THEORITICAL BACKGROUND

Knowledge is anything which has been transformed into understanding, combining instincts, ideas, rules and procedures as a guideline to act and make decisions. To understand the meaning of knowledge it is necessary to approach a hierarchy of knowledge that can be seen in Figure 1 below:

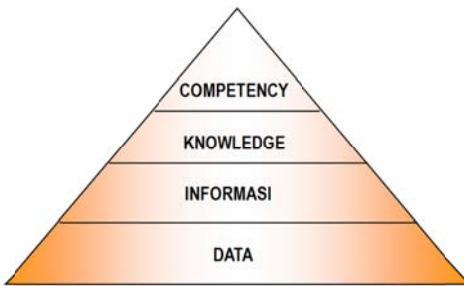


Figure 1. Hierarchy of Knowledge

Source: Ernst & Young (2002)

In the hierarchy of the knowledge there are the key terms such as data, information, knowledge, and competency. Data is the foundation of knowledge in the form of figures or objects and has a meaning only when it comes to the context. Data which are well organized, have meaning, and contextually relevant called as information, which are also considered as a stream of messages. While the difference of information to knowledge can be explained as information is corroboration of the data, while knowledge is the condition of the existence of a commitment or belief that something is good or right. Higher hierarchy of knowledge is competency which is an array of skills, knowledge and abilities needed to achieve an order of activity associated with a specific role of human being.

As a new concept, KM was firstly introduced in 1995 when there was no agreement amongst most of the researchers regarding the definition and perception of KM. Some researchers and institutions have tried to create a definition of knowledge management as follows:

- Nonaka and Takeuchi (2004) described that KM is a framework of explicit and tacit knowledge in a dynamic processes of justifying personal beliefs. Explicit knowledge is not subjective and can be transmitted/transferred through systematic formal language that can be stored in the data base, among others, and written reports. While tacit knowledge is subjective and context-specific, making it difficult to be formulated and communicated. Tacit knowledge can be divided into two parts, namely the cognitive element in form of paradigms, perspectives, beliefs and perspectives and technical expertise among other elements.
- Sveiby (1996) defined KM as the art of creating commercial value of intangible assets.
- IBM Consulting Group (2002) defined KM as activities that enable an organization to better create, understand, and use what they know.
- KM Definition of Mc Kinsey & Co is strengthening performance through systematic and planned approach to the formation, development and application of knowledge in value creation processes of the organization.

## Characteristics of Knowledge-Based Company

Viewed from the standpoint of competition, knowledge is power, namely the power to survive, adapt, and the power that grows in harsh environments. Companies that are able to compete on an ongoing basis and can survive in the long run are characterized by the presence of confidence and support of top management and the staffs to be in the value of unity in order to achieve the goal. They go through openness to the outside world and the tolerance to the influx of new ideas as a real ability to learn and adapt. To achieve competitive advantage, BRI need to apply the concept of Knowledge-based organization with the main mission to obtain, manage and process information and knowledge into competency and

take the race of becoming a learning organization. Knowledge-based organization also aims at enhancing and improving business processes. Technology is only a tool, so that KM must be viewed as a process, not only as digital network system. Successful companies have the ability to consistently create new knowledge, and quickly spread it within the organization, and then apply it in the form of products or services produced. Knowledge-based company will have also knowledge-based business, having a systematic process to manage knowledge and instill a culture of learning and knowledge sharing.

The characteristics of the knowledge-based company are as follows:

- a. Actual knowledge is disseminated to the members of the organization and issued in the form of knowledge sources in the form of text or any other form.
- b. Have different ways to determine the spread (sharing) knowledge within the organization.
- c. Creating a social relationship that involves collecting, sharing and application of knowledge.

## Credit Management

Credit management includes planning the activities, followed by the process of granting credit approval decisions (initiatives, analysis and evaluation, negotiation, recommendation and granting credit approval), preparation of loan agreements, documentation and credit administration, loan approval and disbursement credit supervision, and guidance. In setting up the credit planning, bank must conduct market research and combined with its experience for giving credit, so that the bank can obtain guidelines for the target market to enter, the criteria that prospective customers can be accepted as a client, customer criteria that can be served, as well as the preparation of the magnitude of the target expansion. Furthermore, the process of granting credit decision and credit initiatives include loan application, analysis and evaluation of credit, loan negotiations, the decision on granting credit, credit agreements, documentation and credit administration, loan disbursement approval and supervision of credit.

## RESEARCH METHODOLOGY

Through the application of KM, author tries to overcome the problems of credit management based on the idea development and on the reference study. The author has previously conducted a strategic review of the concept of KM in BRI in order to optimize the management of credit through internal survey to get the primary data to reveal the facts of the problems faced in daily work of the staffs in the field of credit. The findings of these problems are as follows:

- a. Complaints on limited time of work to complete the job in the field of credit.
- b. Complaint on process to accomplishing the work in the field of the old credit.
- c. Complaints on not obtaining necessary information to support the completion of work in the field of credit.
- d. Complaints on lack of information of people who are experts in some particular fields.
- e. Complaints on the new staffs or replacement staffs of having no understanding what to do.
- f. Complaints on loosing knowledge and information due to the disruption of the information system.
- g. Complaints on education and training in the field of credit that are not consistent in its implementation.

The results of the survey conducted by the author to 40 respondents (who had a credit-work background) revealed that the above problems are significantly important, with the score of complaints above average tended to very high (above 4 on a scale of 6). The survey results can be seen in the table below:

**Table 1. Results of the survey of staffs faced complaints of credit in BRI**

Types of Complaint	a	b	c	d	e	f	g
Total Score	171	172	170	162	173	162	165
Average Score	4,275	4,3	4,25	4,05	4,325	4,05	4,125

From the above Table, it appears that the concept of KM has not been applied on daily work. Business environment in bank industry continues to change so dynamically, which eventually leading the competition in credit to get tougher. Under this situation, an integrated and up-to-date KM to improve the services to customers will be one of competitive

advantage determinants for a bank. BRI that still relies on credit products as the main source of income, is required to have an optimum credit management through the application of KM. As related to this condition, BRI needs to build a system that allows the employee's to obtain easiness in accessing information and interacting with the parties involved in the credit management so that productivity can be improved significantly and the cost and time can be managed efficiently.

## **PROBLEM ANALYSIS**

Following up on the problems faced in the credit management at BRI above, the author analyzes the problem by using KM approach through a survey to see if the current credit management problems can be overcome with KM practices. Based on the previous analysis of the strategic review on the concept of KM as an effort to optimize the management of credit in BRI, it is noted that the efforts to overcome constraint of credit management with KM initiatives have a positive correlation. Similarly, KM initiatives positively correlated to the current credit management. Based on these findings of a positive correlation, it can be analyzed that the implementation of KM is necessary to improve credit management in BRI. The practices of KM can be expected to solve the current problems including the long completion time of credit analysis, the overload work of the AOs, lack of access to data and business information, unintegrated monitoring and coaching, and the old standing credit settlement. There are several practices in KM system that can solve the above problems, as follows:

### **Documentation Management**

Documentation management is related to the documentation system that can be accessed by all authorized credit staffs and documented electronically (electronic filing cabinet). Authorized credit staffs can edit the document and access information and data in accordance with the level of authority.

The Application of documentation management are as follows:

#### **1. Archive storaging in software:**

Current credit documentation management by using archive system managed by Credit Administration Division at BRI is now accessible to the system, yet it is not fully integrated.

Archival storage system that requires a lot of space can be reduced with the archival storage software and inputted to the KM system. Thus, authorized credit staffs can access the documents at any time. File documents will be sorted so that the staffs will easily find the required documents in a short time.

#### **2. Supervision and Monitoring Documentation**

Documents can be stored in a document management system such as a field trip report (LKN), monitoring reports, and others. With this system the credit supervisors can monitor through a document without having to go to the field. On site supervisory visit in order to develop and to monitor are still needed, but with KM system the frequency of credit monitoring can be increased as well as saving time and costs for work performed by each staff.

#### **3. Credit Document Monitoring**

Document management is also related to the amount of work done, especially in the Branch Offices. Number of AO is limited while the number of work-load to handle is very high, from marketing, customer data collection process, the preparation of the analysis, negotiation, credit realization and monitoring. It is often that the document monitoring work jointly conducted with Credit Administration Division (CAD) abandoned, because of too many jobs to do within limited time. With on-line document management, it is expected that AO can monitor whether the documents and licenses are still valid and can control the progress of the fulfillment of the documents that have been required in the credit approval decision.

Documentation management system must be supported by the accuracy and validity of data from the data-source search officers and management personnel, so that the supervisors can obtain information about the condition of actual customers. In addition, the system will reduce courier jobs and archivists at the archive depot, but on the other hand it will need more personnel for data entry, system back-up and maintenance

The positive aspects of Documentation Management are:

- A. To reduce the archive storage area, thereby reducing storage costs.
- B. To reduce costs Stationery Office paper form because gradually reduced paper usage.

- C. To save time in archival access, monitoring documents and credit monitoring.
- D. To improve the productivity of credit staffs, due to quick access to work files, documents, and credit monitoring.

The possible negative aspects of the Documentation Management are:

- 1. Data and information can be corrupted due to mis-operation of authorized staffs.
- 2. The requirement of investment costs for the procurement of hardware and software systems, as well as system maintenance costs.
- 3. Overloaded network system because too many staffs who use the system, so that the system becomes slow even the work need to be done manually.
- 4. The risk of eavesdropping by hackers and other computer crimes such as the spread of viruses that can destroy knowledge and information in the system.
- 5. Risk of information and knowledge leakages because of the misuse of passwords by unauthorized parties.

Furthermore, BRI also has a Business Information System (BIS) which is managed by the CAD, currently the source for providing access to the knowledge staffs of credit, provided enough features diverse, for example industrial review of various business sectors which include various types of business funded by BRI.

BIS as a source of information for completion of work in the field of credit yet reliable and satisfactory user, this is in accordance with the results of a survey of 40 respondents staffs in the field of credit in the BRI. The results of the survey showed BIS ranks 6 out of 10 of the sources of reliable information. The order of the sources of information for staffs in the field of credit from highly reliable to unreliable namely:

- 1. Internet
- 2. Published Materials (Business News, Data Consult, News BRI)
- 3. Consultant/Appraiser/Certified Public Accountants
- 4. Customer
- 5. Intranet (email@bri.co.id)
- 6. BRI Business Information System
- 7. Bank/financial institution competitors
- 8. Suppliers of customers/prospective customers
- 9. Distributor customers/prospective customers
- 10. The results of the BRI internal research/survey.

In connection with reliance on BIS yet BRI as a source of information it is necessary to reform the BIS include continuous updating, industrial business reviews reproduced the type of business, and are integrated with documentation management-based knowledge management. With BIS management application documentation is expected to be the most reliable source of knowledge.

## **Collaboration in Credit Management**

In collaboration possible credit staffs to work together and discuss in completing a project or other work. This collaboration system includes two types:

### **a. Collaborative projects**

A collaboration project allows a team to handle credit management and to complete projects more efficiently and effectively by using tools that can monitor the progress of the project through on-line collaboration (chat, discussion groups, email, etc.).

Collaborative projects can be implemented as a monitoring tool for the completion of a project. For example, projects in the field of credit programs involving various related work units in particular areas. Head Office as coordinator can monitor the progress of the project which has been carried out by work units in the area. In addition, if there is a problem, no need make a time-consuming correspondence from Jakarta to the regions or vice versa, since the communication is done on line at the same time via chat.

## **b. Public collaboration**

This mechanism is to accommodate the daily communication activities that can be done using the following facilities:

1. Collaboration on line (chat, discussion groups, e-mail)
2. Management documentation (electronic filing cabinet)
3. System on line with tracking and the ability to use a centralized moderator.
4. Expert system with tracking capability and uses a centralized moderator.

Public collaboration can be implemented as follows:

### **1. Completion of Credit Analysis**

A discussion between analysts and marketing staff for the settlement of credit analysis can utilize public collaboration. In partnership system with the application of 5C's analysis (character, capacity, capital, condition, collateral), the task can be collaborated between the analyst and marketing staff, so that in practice, many questions can arise from marketing analysis to analysts, or vice versa. With the practice of public collaboration, the time required for the discussion will be more efficient, and especially if analyst and marketing staff live in different cities, then travel expenses will also be reduced.

### **2 Credit Decision Making**

Public collaboration can save time in credit decision-making process, particularly through the mechanism of credit committee. In making credit decisions using the mechanism of credit committee at the Headquarters and Regional Offices, time and place are often becoming the source of constraints. For example, the members of the Credit Committee consisting of the Office of Regional Chairman, Regional Vice President, Account Officer and Group Head of Credit Risk Analysis, are often not in the same time and place when a loan approval has to be approved, thus it causes delay and credit process settlement takes more time to decide. Public collaboration using online system with centralized tracking and moderators can be facilitated by the CAD, which allows the deciders in different places to take a joint decision.

### **3 Documentation of Seminars, Workshops and Training**

For credit staffs and other staffs who have followed scientific meetings such as seminars, workshops, training, courses, and others can make the report and stored in the documentation management system. Other staffs who are interested in the report can access and communicate over the public collaboration such as chat, discussion group or email with the author of the report.

### **4 Documentation of Scientific Writing**

The second echelon officials and other credit staffs or other staffs from various field of expertise and experience can pour the ideas and experiences in writing and stored in the documentation management system. Other staffs who in need of the knowledge and experience can access and communicate with the authors. Furthermore, if the author was unable to attend at the workplace or no longer works at the BRI, knowledge and experience can still be stored in the system and can be seen and accessed by other staffs as well as future generations of staffs.

The positive aspects of the collaboration system are:

1. Information and knowledge related to the project can be managed and controlled by the Project Management.
2. Saving time and travel expenses since a discussion and decision can be made in their respective places.
3. Communication and sharing of information and knowledge can be more effective.
4. Staffs can express ideas more freely.
5. Decision making can be faster.
6. Labour productivity can be increased because the work is always monitored by a competent worker at any time without being noticed by the staffs.

The negative aspects of the collaboration system are:

1. Overload network system because too many staffs who use the system so that the work will be slow even need to be done manually.

2. The need of investment costs for the procurement of hardware and software systems as well as system maintenance costs.
3. The risk of eavesdropping by hackers and other computer crimes such as the spread of a virus that can destroy the information and knowledge in the system.
4. The risk of data leakage and password information for misuse by unauthorized parties.
5. Cancellation of implementation of the collaboration with the centralized moderator if the moderator is absent.

### **System workflows**

Most of the administrative credit work in BRI such as settlement process of credit package, a letter and internal memo or assignment letter can be done automatically and be integrated so as to gradually implement paperless office. Workflow functions that are built will have the ability to conduct the tracking of the status of documents and notifying the existence of the document, the processing time monitoring of a document, and automatic notification.

The implementation of a workflow system is as follows:

#### **1 Making the rules and regulations on line**

In making rules and regulations such as the internal memo or assignment letters can be implemented by several related divisions on line, the formulators of the rules and regulations do not need to meet face to face, but they can provide direct input of a workflow system. Authorized credit staffs can monitor progress as well as the existence of the concept of rules and regulations. Authorization workflow also uses electronic signer so that the time required for the completion of a rules and regulations can be faster.

#### **2 Monitoring jobs**

Credit analysis process begins with marketing and data acquisition phase by the AO, the process of credit analysis at the AO, the process of recording revenue in the CAD package, process analysis and process CAD official verdict on the breaker. The flow of work may be monitored by the competent authorities so that credit can be known credit package was at the part where and for how long. Furthermore, the loan officer may direct on line credit, reminding staffs who have been overtime on their appointed work. Credit decision process can be traced how far the credit process has been implemented by using workflow systems.

The tool used in the workflow development is also possible to be used in the other workflow that will be developed later as related to the need of credit staffs.

The positive aspects of the workflow system are:

1. The competent worker can determine the length of work completion time of other staffs directly at that time as well.
2. Saving time for monitoring the existence of document and work progress since it can be done directly in the place of a authorized staff.
3. Stationary and travelling cost savings for the completion of rules and regulations.
4. Staff productivity can be increased because the work is always monitored by a competent staff at any time without being noticed by staffs.

The negative aspect of workflow systems are:

1. Overload network system because too many staffs who use the system so that the work will be slow even need to be done manually.
2. The need for investment costs for the procurement of hardware and software systems as well as system maintenance costs.
3. The risk of eavesdropping by hackers and other computer crimes such as the spread of a virus that can destroy the information and knowledge in the system.
4. The risk of data leakage and password information misuse by unauthorized parties.

### **Advanced Steps**

In adopting KM practices in credit management, there are some issues need to consider that may arise, so BRI need to take the following steps:

1. BRI has prepared to face very tough competition in banking industry by investing in a satellite by partnering with Space System/Loral, LLC and ArianeSpace. BRI takes over the Palapa C2 satellite orbital slots, so BRI is the only bank in the world that operates its own satellite. Operating its own satellites will support the business development and improve the efficiency of business processes, so that BRI can provide better services especially in credit management.
2. Establish a KM system development team consisting of various related units to develop and anticipate risks that will occur with the development of KM system.
3. The development and adjustment of technological capabilities in BRI, in order to adopt KM system, such as providing adequate network to anticipate overloading network system. Good network system will support the smooth management system documentation, collaboration and workflow.
4. Using a system that accommodates the knowledge of information security and the threat of hackers and viruses.
5. Identify further information and knowledge of what is needed and can be accessed through KM system, then take and enter the required information and knowledge to the KM system, and form catalogs and storage of information and knowledge. Information and new knowledge can be used if converted into a format KM system.
6. Maintaining the validity and accuracy of the information and knowledge requires necessary checks of the competent authority before the information and knowledge to be included in the KM system.
7. Conducting the program of education, training and socialization of the KM system to the staffs. This is particularly important given the KM system is a new thing, the staffs need to get an understanding of the importance of KM system as a tool to improve productivity, cost savings and time. Unfit training and socialization can likely cause the staffs to reject the KM system.
8. Switching the staffs who lost their jobs as a courier personnel and archives because of the application of KM SYSTEM into other areas of work such as a data entry clerk, system back-up and maintenance of the system.
9. Continually developing KM system in accordance with operational requirements and development of products and services.
10. Assuring the compliance of system-user staffs to regularly open the system in providing feedback for improvement.
11. Appointing some other backup moderators in collaboration system with centralized moderators, so if a moderator is absent, the centralized collaboration could still run.
12. Disciplining staffs for updating passwords and do not give it to an unauthorized person.

## **CONCLUSIONS**

Based on the discussion, the conclusions are as follows:

1. The strategic review shows that there is a positive correlation between the efforts to overcome obstacles in loan management and the initiative of KM in BRI. In addition, there is a positive correlation between the initiative of KM and the currently loan management, so that it can be stated that the KM practices is required to improve credit management in BRI.
2. BRI as a commercial bank relies on loan as main income and deals with tight competition to gain larger market share, so that BRI requires KM practices to improve its credit management. Current implementation of KM in credit management to overcome problems is still time consuming to complete credit analysis, overloaded task of AO, unaccurately quality of credit analysis, less data access and business information, unintegrated monitoring and building, and long decision making loan process
3. Implementing KM with own satellite suggests BRI to strengthen KM-based competitive advantage that allows BRI staffs to get faster and more accurate information access, be more effective in communication, search idea and new creativity, make on line collaboration, and take faster decision making process so that overall work productivity can be enhanced, as well as time and cost efficiency can be improved.

## Suggestions

BRI to rapidly implement KM system through the following conditions and actions:

1. Implementing broad KM system covers so many aspects and requires high investment, so that it must be done step by step. Considering loan as the main source of income for BRI, so it is better to put the implementation of KM system in credit management as the first priority. The proposal to prioritize KM system in credit management can be forwarded by KM system team to BRI board of directors for approval.
2. In order to avoid obstacles and failures in implementing KM system related to the problems of operational security and conflict with current technology system (BRINETS), it is recommended that KM system team to seek consultancy supports from fully experienced and reputable consultant. The use of outside consultant is reasonable considering that the investment on KM system is highly expensive.
3. BRI KM system team is suggested to benchmark the system with KM systems which have been implemented by other banks. If possible, it is better if the benchmarked banks are those with similar characteristics with BRI such as working network coverage and business focus on small and medium enterprises (SMEs).
4. BRI Business information system (BIS) must be fully reliable as the source of information, so that BRI Credit Administration Division (CAD) must improve the BIS by integrating KM-based documentation management system
5. Intensive and systematic learning and education program related to KM system implementation must be conducted, as well as the socialization and internalization program to BRI staffs. These programs are essential in order to ensure the optimization of program utilization to increase productivity and to keep time and cost efficiency
6. Assigning the top ranked officers with special experiences and expertises to write down at least two scientific papers annually which will be kept in the KM system format. The papers must be accessible to other staffs that need them for references. The similar assignment also applied to all BRI staffs who officially attend scientific events local or abroad, such as conferences, workshops, seminars, etc.

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## Use of knowledge sharing tools in small and medium enterprises in Hanoi, Vietnam

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### Abstract

With the target of basically becoming an industrial country by 2020, the policy of the Government of Vietnam is accelerating the process of industrialization and modernization. To achieve the target, Vietnam needs to enhance knowledge management in organizations as it is the driver for innovation, which will make products and services become “smarter” and more knowledge-based, and thus, more competitive. The enhancement of knowledge sharing, thus, is important in organizations.

The objective of this research is to investigate the use of knowledge sharing tools by employees in small and medium enterprises in Hanoi, which is the capital of Vietnam. For this purpose, a research was conducted through two data collection methods, which were questionnaires distribution and in-depth interview. For the first method, 150 questionnaires were distributed and among them, 127 were collected. For the second, ten employees from 3 small and medium enterprises were interviewed on their use of knowledge sharing tools.

The results of the research revealed that employees used limited knowledge sharing tools in working place. It also revealed that there was a relationship between the use of knowledge sharing tools and employees' abilities to solve problems in working. Based on research findings, some implications are made to enhance the use of knowledge sharing tools in small and medium enterprises in Hanoi, Vietnam.

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*Keywords:* knowledge management; knowledge sharing tools; learning organization.

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### 1. Introduction

#### 1.1. Rationale of the research

Knowledge management is the deliberate and systematic coordination of an organization's people, technology, processes, and organizational structure in order to add value through reuse and innovation. This coordination is achieved through creating, sharing, and applying knowledge as well as through feeding the valuable lessons learned and best practices into corporate memory in order to foster continued organizational learning [1]. In other words, knowledge management could be considered a process that transforms individual knowledge into organizational knowledge. In this process, people create, accumulate, organize, share and utilize knowledge to achieve objectives and enhance organizational performance [2]. In the twenty-first century, as knowledge is considered the most important asset of an organization, knowledge management, thus, become crucial to every organization.

Among the above activities of knowledge management, knowledge sharing, which is the process of exchanging knowledge (skills, experience, and understanding) among people in organizations, is an essential part. Through this activity, right information can be sent to right people and thus, organizational learning, is enhanced. So far, a lot of knowledge sharing tools have been identified such as methods, meetings and tools [3]; writing, speaking, and online tools [4]; story, peer assists challenging sessions, after action reviews and retrospect, intranet strategy, and email [5]; etc. Correspondingly, the decision of choosing the tools is based on the specific features of organizations. Some organizations may find online tools useful

where as others focus on meetings. For these reasons, finding the use of knowledge sharing tools is very important to enhance organizational learning and finally, to contribute to organizational performance.

To achieve the target of basically becoming an industrial country by 2020, Vietnam needs to enhance knowledge management in organizations as it is the driver for innovation, which will make products and services become “smarter” and more knowledge-based, and thus, more competitive. Since small and medium enterprises (SMEs) have played an important role in the economy as they contributed to about 46% of Vietnam’s GDP in 2007- 2010 period [6], the enhancement of knowledge sharing within SMEs, thus, is important.

For the above reasons, the objective of this research is to investigate the use of knowledge sharing tools by employees in SMEs in Hanoi, which is the capital of Vietnam. The reason for choosing Hanoi is its large population, which is over 7 millions as of July 2013 and its high GDP, which is about USD 17.31 billion, equivalent to 10.1% of GDP of Vietnam in 2013 [7]. Hanoi also has large number of enterprises; they are 72,455 as of December 31, 2012 [8]. Among them, more than 90% are SMEs [9].

### *Theory framework*

The idea of this research derives from the idea that knowledge management may influence organizational performance [10] and [11]. The result of the two researches revealed that, to some extent, there is a positive relationship between knowledge management and organizational performance. Based on that finding, it can be denoted that the use of knowledge sharing can help employees in solving their problems in workplace and finally, influence their work results. This research examine which tools employees in SMEs in Hanoi use for knowledge sharing and whether the use influences their problem solving abilities in workplace.

### *Literature review*

So far, knowledge management has been paid attention to by many researchers around the world. However, in Vietnam, there have not been many researches on this issue. Some researchers focused on Japan’s experience of knowledge-based management (Thang, 2011), knowledge management in Vietnam enterprises (Linh and Phuong, 2012), the relationship between knowledge management strategy, innovation and creativity and business performance (Duy and Tuan, 2013). However, there has not been any research on the examination of knowledge sharing tools in SMEs in Hanoi.

### *Objectives of the study*

The objectives of the research are two folds:

- To examine the tools employees in SMEs in Hanoi use for knowledge sharing.
- To examine if there is any relationship between use of knowledge sharing tools and employees’ problem solving abilities.

## **2. Methodology**

### *2.1. Sampling*

The overall objective of the study is to examine the use of knowledge sharing tools in small and medium enterprises in Hanoi, Vietnam. The findings of the research were completed by applying secondary data research, questionnaire survey and interview.

Firstly, a secondary data research was conducted to find popular knowledge sharing tools in organizations and to find if there is any the same research. A short list of the relevant researches was compiled. The study came up with the above two objectives.

Secondly, a set of questionnaires for employees in SMEs in Hanoi was conducted. Before they were distributed, a pilot survey was conducted to explore whether there were ideas or aspects that the framework and the questionnaires had not captured and to make sure that the questionnaire was fully understandable and answerable. For this purpose, a convenient sample of 6 employees was invited to answer the initial questionnaires and then giving their feedbacks. After the pilot, 15 knowledge sharing tools were identified as followings:

*Table 1: The proposed knowledge sharing tools*

Tool		
Internet	Coaching	Cafe
Intranet	Training review	Visual instruction
Social network	Expert	Open workplace
Meetings	Peer assist	Library
Experience review	Story telling	Blog

*Source: result of the survey*

The convenient sampling method was applied to questionnaires survey. Respondents who received questionnaires were chosen in some enterprises located in such districts as Dong Da, Hai Ba Trung, Thanh Xuan, Long Bien, Ha Dong, Cau Giay and suburban areas of Hanoi, based on their willingness to cooperate with the research (table 2). In order to avoid the overlap between respondents' ideas, no more than 2 employees from the same department were chosen. The SMEs which respondents belonged to are in the Table 2. 150 questionnaires were distributed and 127 of them were collected and analyzed, accounting for 84.67%. Concurrently, 10 employees were interviewed about their use of knowledge sharing tools.

*Table 2: Lists of SMEs respondents belong to*

Name of organization
S Media Company
Rich Media Company
Vietinbank, Thanh Xuan Transaction Office
VietinBank, Dong Da Transaction Office
Le May Co. Ltd., Hanoi Branch
TD Commerce and General Service Co. Ltd.
Phuc Nam Construction Company
DKT Technology JSC.

#### *Hypotheses*

The collected data is analyzed based on the theoretical framework. The study examines employees' use of knowledge sharing tools as well as the relationship between the use of each tool and employees' abilities to solve problem at working place. The employees' problem solving abilities is evaluated by employees themselves. The hypothesis is as followings:

H: There is a positive relationship between the use of knowledge sharing tools and employees' problem solving abilities.

However, as there are 15 tools, factor analysis will be used to reduce the number of variables. The number of hypotheses will be based on the number of factors extracted.

#### *Data collection and analysis*

The questionnaires were distributed and collected by the author and five of her colleagues from May to June 2014. Each respondent was met to fill in questionnaire. The length of the questionnaire is one page. It would take respondents about seven to ten minutes to answer all the questions. This is considered most appropriate amount of time that respondents have enough concentration and motivation to answer.

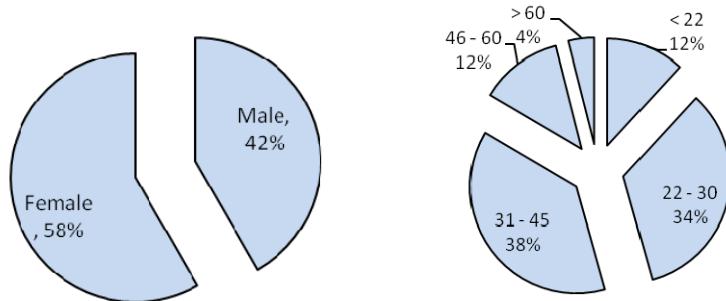
There were two set of data. The first was quantitative data, including all information about 127 employees in SMEs in Hanoi. SPSS computer software package was used to analyze the collected data. Firstly, descriptive statistics were calculated for all variables to have a general screening on the real data set in terms of frequency, means, variances, etc. This step also helped to detect any mistake of data entry. Secondly, the relationships between variables were examined by factor analysis, cross tabulation and ANOVA tests. The second included qualitative data which derives from the in-depth interview. This data was used to supplement the quantitative data.

### 3. Results and discussions

#### 3.1. The general information of respondents

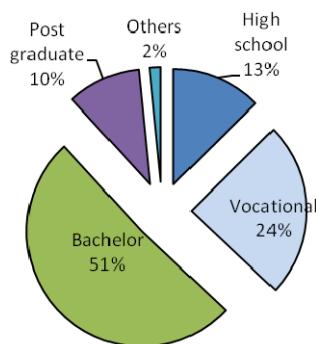
The below pictures showed the characteristics of the sample.

*Figure 1: Gender and age of respondents*



*Source: result of the survey*

*Figure 2: Qualifications of respondents*



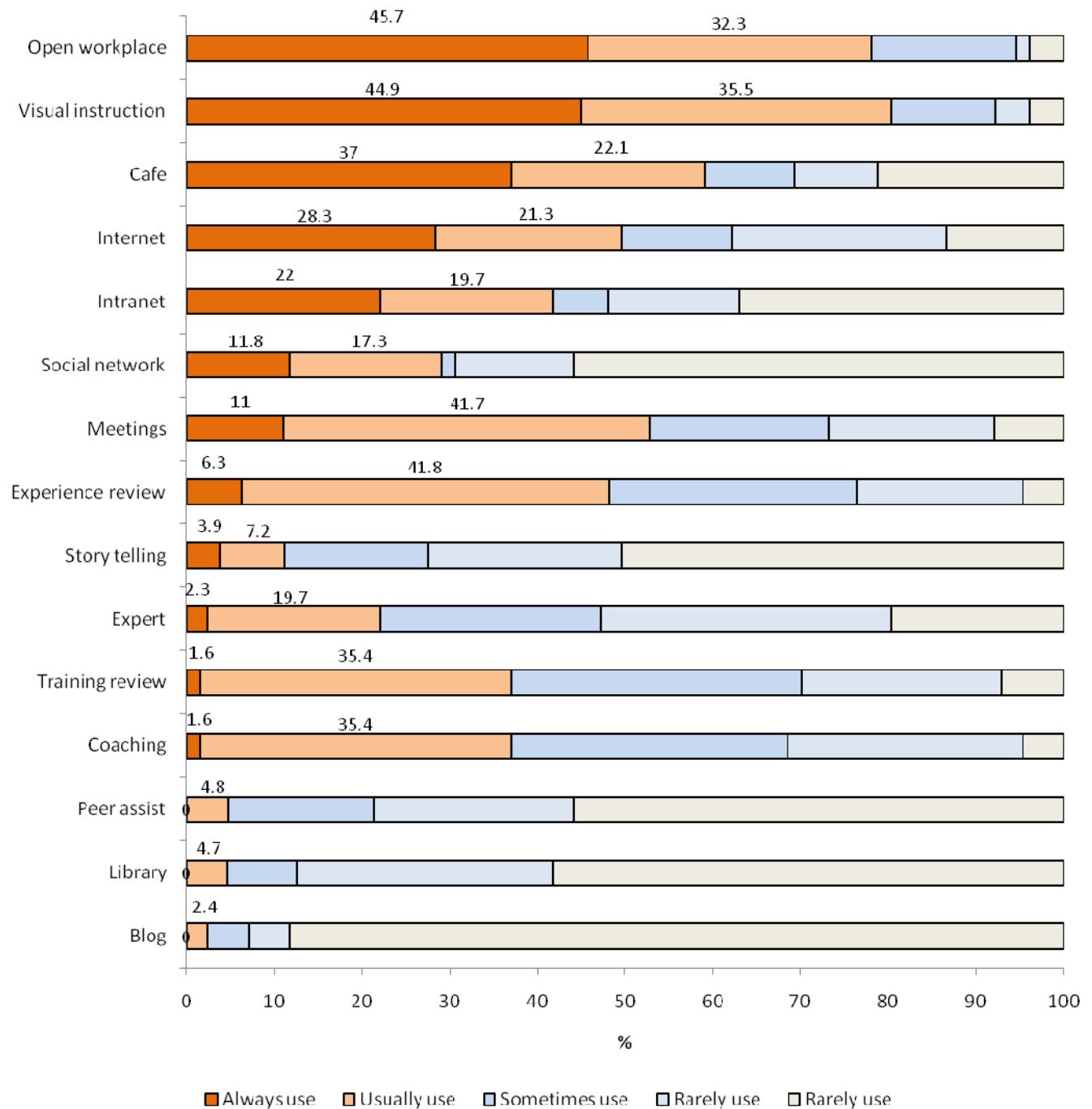
*Source: result of the survey*

The total sample had a gender mix of 42% male, 58 % female. Nearly a half of the respondents were young as about 46 % of them were less than 31 years old. 38% of the sample was aged between 31 and 45 years. This is the biggest group. Regarding to qualifications, around a half of the sample (51%) was bachelor, 24% graduated vocational training, 13% completed high school, and 10% were post graduated.

#### 3.2. The use of knowledge sharing tools

The result of the survey revealed that employees had a limited use of knowledge sharing tools (see figure 3). Among the tools, open workplace and visual instruction were used the most. A lot of respondents had a working environment in which they could easily exchange ideas with others. Their working places also usually had visual instructions. They could easily follow rules and requirements in workplace. Meeting at café and meeting for discussion at workplace were usually used by more than a half of respondents. The rates of surveyed employees used these tools were equivalent to 59.1% and 52.7% of the sample. Internet ranked the fifth among the tools used by respondents. The percentage of employees used internet to sharing knowledge accounts for 49.6% of the sample. This finding was consistent with results of interviews, all of 10 respondents said they could easily exchange their ideas in working place, 8 out of 10 respondents reported that in their working places, there were visual instructions. 7 of them said they always meet for discussion at work place and 5 reported they could meet at café in or nearby their office for exchanging information.

*Figure 3: Employees' use of knowledge sharing tools*



*Source: Result of the survey*

The four tools those were used the least by respondents were blog, library, peer assist and story telling. Respondents who used these tools accounted for 2.4%, 4.7%, 4.8% and 11.1% of the sample, respectively. The result of the interviews with respondents revealed that most of SMEs did not have library, employees in these SMEs did not have blog, neither. Peer assist seemed not to be carried out by these SMEs so far. Only two respondent said story telling has been applied in their enterprises for sharing knowledge. Regarding to interviews, all of 10 interviewees reported that they did not use any tools

among blog, library, peer assist and story telling. They all have never come to any library for finding information since they worked. They also revealed that there were not any enterprise libraries in their working place so far.

### *3.3. The relationship between the use of knowledge sharing tools and employees' problem solving abilities*

Using factor analysis for data reduction or structure detection, the KMO and Barlett's test showed we could reduce from 15 variables to four components extracted. The result of KMO and Barlett's Test had the value of 0.664. Since this value was greater than 0.5 with the significant of .000 (table 3), we could process the factor analysis.

*Table 3: KMO and Barlett's Test*

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.664
Bartlett's Test of Sphericity	Approx. Chi-Square	1.122E3
	df	105
	Sig.	.000

The rotated component matrix showed that 14 tools could be classified into 4 groups of tools (table 4). Since we took into account only variable that did not have suppress absolute values less than 0.5 in order to have meaningful variable, blog was discarded from the groups. Based on the variables in each group, the four factors could be named as followings:

*Table 4: Rotated component matrix*

Rotated Component Matrix <sup>a</sup>					Name of the factor
	Component				
	1	2	3	4	
Internet	.907				Online tools
Intranet	.806				
Social network	.764				
Coaching		.945			Training tools
Training review		.880			
Expert		.786			
Visual instruction			.761		Working environment tools
Peer assist			.753		
Library			.601		
Work place			.589		
Blog					
Cafe				.768	Meeting tools
Story telling				.730	
Experience review				.614	
Meetings				.574	

Extraction Method: Principal Component Analysis.	
Rotation Method: Varimax with Kaiser Normalization.	
a. Rotation converged in 6 iterations.	

Regression analysis was conducted to test the hypothesis. The data was shown in the table 5. We came up with four hypotheses and results of regression analysis as followings:

Table 5: *Regression analysis of predictors of employees' problem solving abilities*

Model		Coefficients <sup>a</sup>			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	3.646	.047		77.018	.000
	REGR factor score 1 - Online tools	.323	.048	.472	6.792	.000
	REGR factor score 2 - Training tools	-.010	.048	-.014	-.206	.837
	REGR factor score 3 - Working environment tools	.298	.048	.435	6.270	.000
	REGR factor score 4 - Meeting tools	.010	.048	.014	.208	.836
a. Dependent Variable: Solving problem abilities						

H1: Use of online tools will positively influence employees' problem solving abilities.

Table 5 indicates a relationship between the use of online tools and employees' problem solving abilities,  $t = 6.792$  and  $p < 0.05$ . The null hypothesis is rejected and the hypothesis is supported.

H2: Use of training tools will positively influence employees' problem solving abilities.

Table 5 indicates a relationship between the use of training tools and employees' problem solving abilities,  $t = -.206$  and  $p$  is 0.837, much higher than 0.05. There is not enough evidence to reject the null hypothesis.

H3: Use of working environment tools will positively influence employees' problem solving abilities.

Table 5 indicates a relationship between the use of working environment tools and employees' problem solving abilities,  $t = 6.270$  and  $p < 0.05$ . The null hypothesis is rejected and the hypothesis is supported.

H4: Use of meeting tools will positively influence employees' problem solving abilities.

Table 5 indicates a relationship between the use of meeting tools and employees' problem solving abilities,  $t = .208$  and  $p$  is 0.836, much higher than 0.05. There is not enough evidence to reject the null hypothesis.

#### 4. Conclusions

This paper examined the use of knowledge sharing tools in SMEs in Hanoi, Vietnam. The result of the research revealed that employees in SMEs in Hanoi used the limited tools for knowledge sharing. Among the tools, organizing open working place, using visual instruction, meeting at café, meeting for discussion and using internet for sharing knowledge were used the most. Reversely, using blog, library, peer assist and story telling were used the least.

The paper also examined whether there were any relationship between knowledge sharing tools and employees' problem solving abilities. Factor analysis helped to reduce from 15 to 4 variables namely online, training, working environment and meeting tools. The regression analysis showed that there were positive relationships between online tools and working environment tools with employees' problem solving abilities. There was not enough evidence to support the relationship between training tools and meeting tools with employees' problem solving abilities. Regarding to this finding, it is said that enterprises should share knowledge through online tools and working environment tools in order to enhance employees' problem solving abilities.

The limitations of the research are small sample size and convenience sampling method. Further research should be taken with larger sample size in larger number of enterprises.

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## An Application of Conjoint Analysis to Explore User's Preference on Product Attributes

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### Abstract

This paper is aimed to analyze users' preferences on product attributes of social network, which has been known as social messenger by using conjoint analysis. Conjoint analysis is applied for the measurement of user's preferences on product attributes using three attributes and between three to six levels for each attribute. To apply the approach, three significant points were designed: the first point investigates the importance of score index, and then attribute utility, and finally correlation and significance. Consequently, it weighed the preferences by the virtual profiles of the product attributes, which represent the ideal systems. Very good agreement is found between theoretical and measurement tools using conjoint analysis. It was found that not all product attributes affected preferential attitudes of using social messengers.

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*Keywords:* Product attributes; preferential attitudes; conjoint analysis; social messenger.

### 1. Introduction

The development of information technology which is increasingly and rapidly advanced indirectly forces people to be aware of new technologies around them. Technological products are created around the world at almost every second. People have to appreciate this technological development since it surely will help human's life. Along with the rapid of technological development, internet development is increasing as well. Indonesia is one of the countries with quite high internet users. A survey conducted by Indonesian Internet Service Provider's Association (APJII) [1] says that the number of Indonesian internet users in 2013 has reached 82 million users. It increases by 19 million users from 2012 recording that there were 63 million internet users in Indonesia.

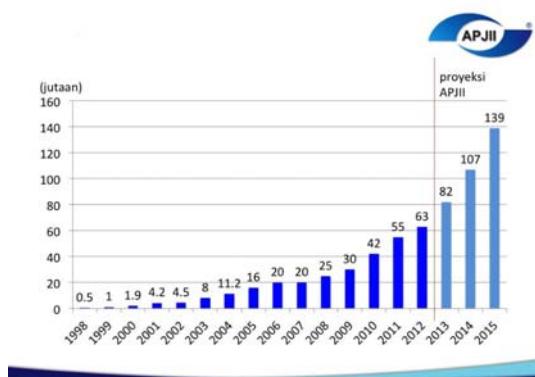


Fig. 1. Number of internet users in Indonesia [1]

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Based on Fig. 1, internet users in Indonesia will continue to grow and they are projected to reach 107 million active users by 2014 and 139 active users by 2015. Nowadays, communications can be done not only physically, but also virtually in cyberspace using computer and Smartphone through social networks. People have recognized the existence of social messenger where chatting becomes one of ways to communicate. A means of communication does not only depend on phoning and texting. Currently, there has been a messenger application which enables people to instantly send messages to others. Messenger has advantages compared with text messaging. Text Messages can only send messages in the form of texts but messengers can send messages in the forms of text, video, voice message, and stickers. Instant messenger application has shifted the position of text message service. In accordance with the information analysis agency, in 2012 the number of messages sent through instant messenger service has successfully exceeded the number of messages sent through text message service. With 19 billion messages, for the first time, the number of sent text messages, which is 17.6 billion, has been exceeded by various instant messenger applications.

The development of instant messaging application users is supported by the existence of various messenger applications offered to people today.

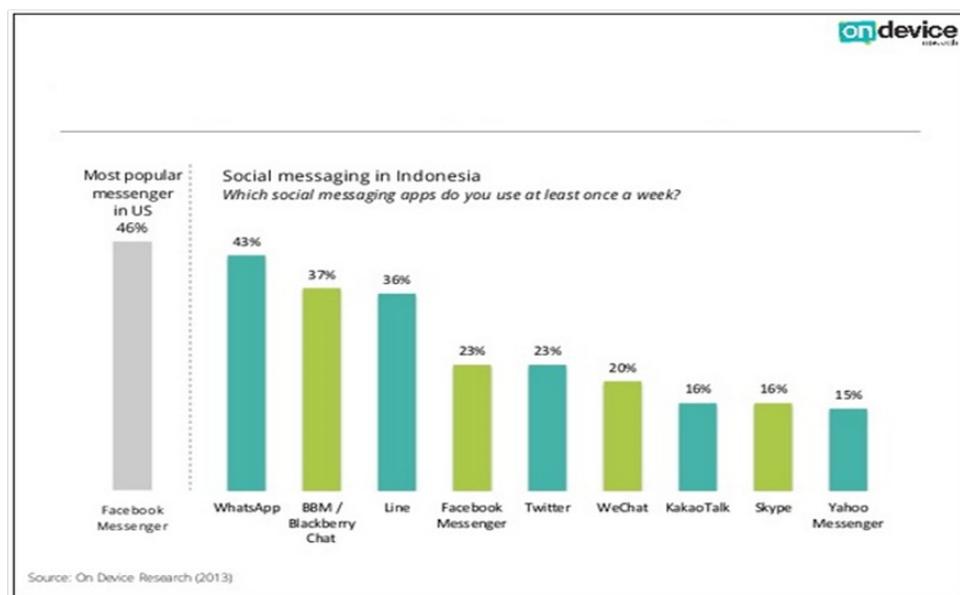


Fig. 2 Social Messaging in Indonesia [2]

Based on Fig. 2, it can be seen that there are some instant messaging service providers in Indonesia: WhatsApp, Line, KakaoTalk, WeChat, Blackberry Messenger, Facebook Messenger, Skype and Yahoo Messenger. In accordance with a report by *OnDevice* marketing research institute, the competing applications are LINE, WhatsApp, WeChat and KakaoTalk. This competition is indicated by the increasing number of users from each application. It is also indicated by the continued innovation by messenger application developer companies. This innovation is created to attract the Smartphone users' interests to use that messenger applications [2]. According to Kotler & Keller [4], a company is able to design and apply a strategy which can stimulate consumers' interests towards products by understanding the consumer's preferences.

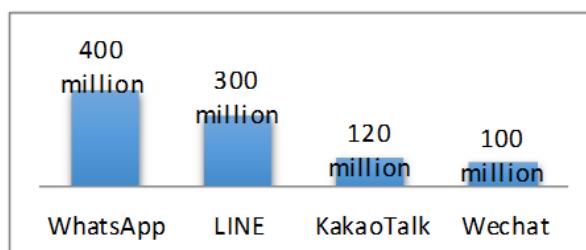


Fig. 3. The Number of Social Messenger Users [3]

Figure 3 illustrates that WhatsApp has the highest number of users, followed by LINE users, and then followed by KakaoTalk users and WeChat users with 100 million users. Seeing the high number of social messenger users today, it can be predicted that those numbers will continue to grow by 2014. The growing number depends on the efforts of each instant messaging application developers to make interesting approaches for the users all over the world including Indonesia. In relation to that, Bandung city was chosen as the object of research since Bandung is in the third rank city among the seven cities that have the most population in Indonesia with a population of 2,771,138 people [5].

The aim of this research was to find out how the consumers' preference of social messenger usage in Bandung, with a limitation on the level of importance of each attribute and the result of the attribute combination and social messenger level that are the most desired by the consumers.

## 2. Methodology

### 2.1 Customer Behavior

According to Mothersbaugh [6], "consumer behavior is the study of individuals, groups, or organization and the processes they use to select, secure, use and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have to the consumer and the society". Schiffman and Kanuk [7] state that the study of consumers' behavior is centered on ways of individuals to decide in utilizing their available resources (time, money, effort) in order to buy the goods related to consumption.

Consumption is used as the central attention point in marketing process. Learning what consumers need and desire will lead marketers to a right and efficient marketing policy. Consumer's study gives a guidance to fix and introduce a product or service, to set prices, to plan channels, to arrange messages, and to develop other marketing activities. In a model of consumer's behavior [4], a process is started from marketing stimuli and other stimuli from the outside such as economy, technology, culture, and politics. A set of stimuli will be influenced and will influence consumers' psychological side and characteristics, which further continues on the process of purchase decisions.

In the process of purchase decision, there are some steps initiated by identifying problems by consumers regarding what they need and desire. The next step is where consumers search information related to the products. Then, there will be some alternatives products which will be evaluated. In the evaluation step, consumers will form a preference of product options series which ultimately determine the purchase decision.

### 2.2 Purchase Decision

According to Kotler and Armstrong [8], in the evaluation step, consumers will determine brand ranks and will form the purchasing intention. Generally, purchase decision of consumers is to purchase the most preferred brands. However, two factors can be different between purchase intention and purchase decision. The first factor is another's behavior. A desire in purchasing can be influenced by the closest factor or by people who have been trusted or who have significance for the buyer, so that the buyer's opportunity to follow his/her own desire is diminished.

The second factor is the situational factor which is not anticipated. The consumer may form purchase intention based on factors such as income, prices, and advantages of the expected products. Nonetheless, unexpected events can change the purchase intention [8].

### 2.3 Purchase Decision Behavior

There are four purchase behaviors of consumers in accordance with the involvement level of consumer and the differentiation level of brands [8]. They are (a) *Complex Purchase Behavior*, Complex purchase behavior is the purchase behavior of consumers in a situation determined by the high involvement of consumers in purchasing and by the significant differences among the brands. (b) *Dissonance Reduction Purchase Behavior*, Dissonance Reduction Purchase Behavior is the purchase behavior of consumers in a situation which has high involvement character but few differences among the brands. (c) *Habit Purchase Behavior*, Habit Purchase Behavior is the purchase behavior in a situation which has low involvement character and few differences among the brands, and (d) *Variety-Seek Purchase Behavior*, Variety-Seek purchase behavior is the purchase behavior which has low involvement character but with the significant differences among the brands.

### 2.4 Decision-Making of Consumers

In consuming a product or service, there are steps taken by consumers. Knowing about these steps can help the

marketers or companies to understand consumer's behaviors [9]. Basically, the purchase decisions made by the consumers are divided into five steps as affirmed by Kotler and Amstrong [8]. It is initiated by the needs recognition, information retrieval, alternatives of evaluation, purchase decision-making, and post-purchase behaviors, as can be seen in Fig. 4:

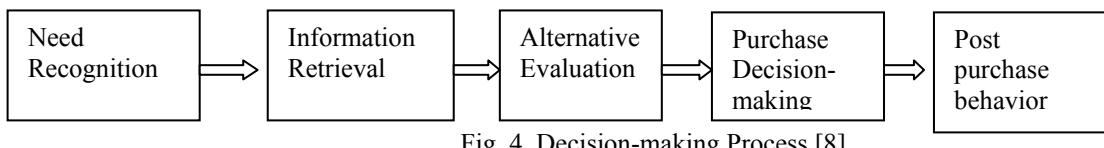


Fig. 4. Decision-making Process [8]

(1). *Needs Recognition*; Purchasing process is initiated by the needs recognition where consumers are aware of a problem or needs. The needs can be triggered by internal stimuli when one of one's normal needs - like hunger, thirst, sex – emerges in the high level so it becomes an impulse. The needs also can be triggered by external stimuli. (2) *Information Retrieval*; Consumers who are interested may search more information or maybe not. If the consumers' impulse is strong and the satisfying product exists in those consumers, they may buy it then. If it is not, the consumers can bear the needs in their minds or search the information related to their needs.

(3) *Alternative Evaluation*; this is a decision process step of consumers where they use information to evaluate the alternative brand in a group of options. It is also how consumers process information to arrive at the brand choice. Unfortunately, the consumers do not use a simple and single evaluation process in all purchase situations. Instead, some evaluation processes are conducted.

(4) *Purchase Decision-making*; in the evaluation step, consumers determine the brand rank and form their purchase intention. Generally, purchase decision of consumers is to purchase the brand they like the most, but the two factors can be different between the purchase intention and purchase decision. The first factor is another's behavior. The second factor is an unexpected situational factor

(5) *Post-purchase Behavior*; The decision-making of consumers where they take the next action after the purchase that is based on their satisfaction or dissatisfaction. The larger the gap between the expectation and performance exists, the larger the dissatisfaction of consumers becomes. It indicates that the seller is only allowed to promise what brand can be given so that the consumers feel satisfied. How to evaluate the consumers' complaints has to be handled effectively.

## 2.5 Alternative Evaluation and Selection

The complication of a process of alternative evaluation which is done by consumers highly depends on the model of decision made by the consumers. The obtained information is further processed to get the decision or consideration of values of a product, and it will result in some attributes. After that, it will be given the quality of various alternatives. Hawkins and Motherbough [6] illustrate the alternatives evaluation and selection of a product before executing the purchase decision. The alternative evaluations explained by Hawkins and Motherbough [6] are divided into three parts: evaluation criteria, important criteria, and considered alternatives. Each consumer has different perspective about those three given evaluations.

The third step of this decision-making process of the consumer is conducting the alternatives evaluation. First, the general description above is the consumers' processes to use or choose, and compare the available alternative products. Then, the consumers describe the situation and the characteristics of evaluation criteria (for instance, the advantages of choosing that products). After examining the evaluation criteria, important criteria, and the available alternatives, the consumers will focus on seeing the capability of assessing performance of a product. Ultimately, the consumers examine the decision rules which will be applied by those consumers to choose a single alternative which is considered as a good product and can fulfil their satisfaction.

Some basic concepts will help in understanding the consumers' evaluation process; firstly, they attempt to meet the needs. Secondly, they look for certain advantages of product solution. Thirdly, they see each product as a set of attributes with different capabilities in giving the advantages which are used to satisfy those needs. The attributes which are interesting for the consumers are various depending on the types of the products.

## 2.6 Preference

Consumer's preference is a consumer's behavior towards a single choice of brand formed through an evaluation of various brands in various available choices [9]. Meanwhile, according to Frank [10], preference is a ranking process of all things which can be consumed in order to obtain the preference of a product or service. Based on Kotler and Keller [11], there are some steps which will be experienced by the consumers so that they can draw their satisfaction feeling of a product.

According to Schiffman and Kanuk [7], the nature of consumer's stimuli covers many variables which will influence the perspective of a consumer, like the condition of product, its physical characteristics, packaging design, print ads and TV commercials. Stimuli discrimination is a capability of a consumer to differentiate among similar stimuli which serve as the basis for strategy of position settings attempting to develop a typical image of certain product in the consumer's mind. In addition, Schiffman and Kanuk [7], state that a conditioning means as a response towards a situation which occurs through the repeated explanation.

The consumer's preference emerges in the alternative evaluation step in the process of purchase decision, where in that step; the consumer is faced with various product choices or services with different attributes. Hence, it can be concluded that preference is a choice taken and selected by a consumer from various available choices. In this step, it can be seen when the preference step exists in the consumer, that step can be seen in Fig. 5 below:

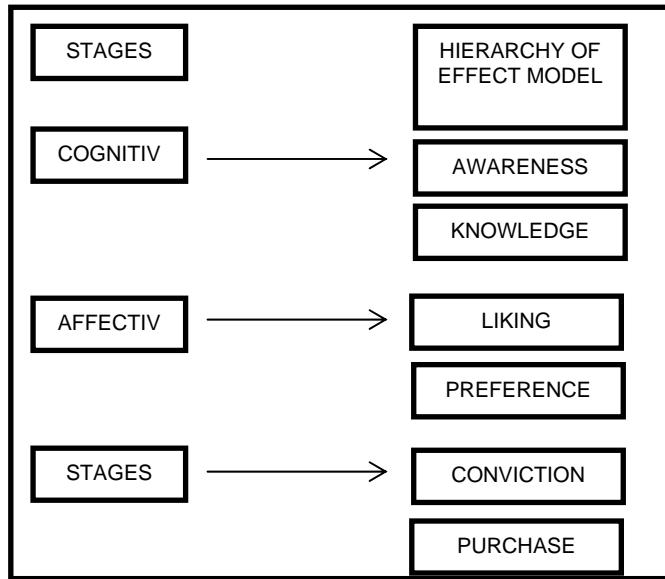


Fig. 5. Model of Hierarchy of Effect [11]

In Fig. 5, it can be seen that there are six steps in the model of hierarchy of effect, namely, (a) Awareness; this is a step where the consumer is aware of the existence of a product either in the form of goods or services. (b) Knowledge; in this step the consumer has recognized the product and understands about the product which is in the form of goods or services. (c) Liking; this is a step where the consumer begins to like that product which is in the form of the offered goods or services. (d) Preference; this is a step where the consumer begins to prefer that products over other products. (e) Conviction/intention to buy; in this step, the consumer has a desire to buy, and ultimately, decides to buy the product. (f) Purchase; this is a step where the consumer can be said as a loyal consumer of a product, so that consumer feels no doubt anymore to purchase that product without any consideration.

The preference step owned by a consumer towards a product is the early step of consumer's loyalty towards that product so that the company has to learn the way to cause preference taste in consumer. It can be known by a producer from learning consumer's behavior, by influencing and manipulating each decision steps made by the consumers.

A preference can be used by the businessmen to recognize the consumers' needs in order to get the products with the market-orientation, which is based on the preference level of consumers for each of the product attribute. The preference also can be used to identify the different preference segments. According to Kotler and Keller [11], there are three forms of preference patterns; i.e. (a) Homogeneous Preference; Homogeneous Preference shows one market where all consumers roughly have the same preference. (b) Scattered Preference; Scattered Preference shows that the consumers are different in their preferences. (c) Group Preference; Group Preference is where the market shows groups of different preference.

By understanding the consumer's preference, a company is able to design a right strategy to respond to their consumer's expectation and to make differentiation strategy of that company to its competitor. Based on Kotler and Keller [11], there are some steps which have to be undergone until the consumers form a preference; (1) It is assumed that the consumers see a product as a set of attributes. The different consumers have different attributes about relevant product, (2) the consumers have different emphasis in assessing which attribute is the most important. The consumers with big purchasing power concern with the most important price attribute, (3) The consumers develop number of trust about the product location on each attribute, (4) The level of consumers' satisfaction will vary in accordance with attribute difference, and (5) The consumer will arrive at the attitude to different brands through the evaluation procedures.

## 2.7 Definition of Product and Classification of Product

Products is an output from what is produced by the company and which is offered to the society as affirmed by Kotler and Amstrong [8] saying that product is all things which can be offered to the markets in order to draw attention, acquisition, usage, or consumption in order to satisfy desires or needs. Product is a result of creativity and performance of a company where this product finally becomes a medium for consumer to assess and to possess a perspective about that company, seen from the products they create.

In addition, Kotler and Amstrong [8] classify product into two big groups based on the type of consumers using it, they are consumer product and industry product. Consumer product is a product which is either consumed or purchased by the final consumer for personal consumption purposes while industry product is a product which is purchased by an individual and an organization for further processing or to be used in running their business. Both consumer product and industry product have some groups, namely:

### a. Consumer Product

1. Daily need product, is a consumer product which is usually and immediately purchased by the consumer with minimum comparing and purchasing effort.
2. Shopping product is a consumer's goods where they, in the process of selecting and purchasing, characteristically compare the products based on the suitability, quality, price, and style.
3. Specific product is a consumer's goods with a unique characteristic or brand identification where a group of significant buyers are willing to make a specific purchasing effort.
4. Not-sought product is a consumer's product which is not recognized by the consumer or may be recognized by the consumer but he never thinks to purchase it.

### b. Industry Products

1. Materials and spare parts

Materials and spare parts include raw materials, manufacture materials, and spare parts.

2. Capital goods

It is a product industry which helps the production or operation of a buyer, including the installation and accessories tools.

3. Supplies and services

Supplies include operational supplies as well as fixing and maintaining goods. Supplies are a daily need product in industrial field since it is usually purchased with minimum effort and comparison.

## 2.8 Product Attribute

According to Kotler and Amstrong [8], product attribute is a communication advantage from development results of a product or service which will be offered by the product and service itself. The product attribute covers quality, feature, style, and design.

### a. Quality of product

Quality of product is a positioning medium for marketers, this quality of product is closely related to value and satisfaction of a consumer since the quality of a product directly impacts on the performance of product and services which can be experienced by the consumers. Quality of product has two main dimensions: level and consistency. Level means that a company, at first, has to get the level of quality of product which is further used for that product positioning. Then, the consistency towards the level of quality of a product has to be maintained so the consumer is able to experience the consistency of quality as expected.

### b. Features of product

Feature is a competitive medium to differentiate the company's product from the competitor's product. A product can be offered with various features, either old feature or new feature. Becoming the first producer that introduces new valuable feature is one of the most effective ways to compete. Meanwhile, Kotler and Keller [9] argue that most products can be offered by varying the features which complete their basic functions.

c. Style and Design of product

Design has a bigger concept than that of the style. Style only describes the product display and style is the heart of a product and is not merely the outer appearance. A good design is started with a deep understanding of the needs of consumers. It is more than just creating the attribute of product or service, design involves the forming of product usage experience for the consumers. Meanwhile, according to Kotler and Keller [9], design is the totality of features which influence the display, taste, and product function based on the needs of consumers.

2.9 Levels of Product

According to Kotler and Keller [9], there are five groups of products in the process of product designing development. Those five groups are (a) Core Product; it is the core of what is actually needed from a product. The marketer has to understand the core product which will be purchased by the consumer, (b) Basic Product; It is a characteristic of a product which covers the level of quality, model, brand, packaging, and the product characteristic , (c) Expected Product; It is a set of attribute and a level expected by the consumer towards a product, (d) Augmented Product; It is the augmented advantages which exist in a product given by the company, and (e) Potential Product; It is a concept of a future product which offers some new features.

Based on those theories, the framework of this research can be illustrated as follow::

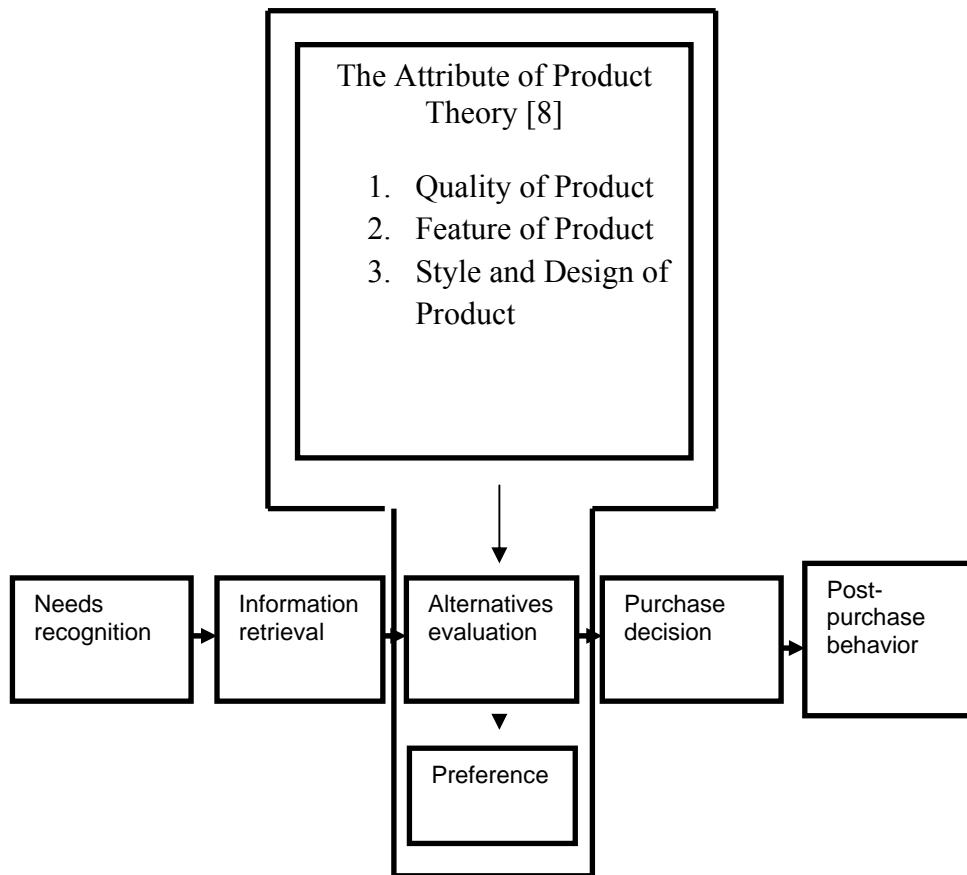


Fig. 6. The Framework of the research

2.10 Research methodology

a. Conjoint Analysis in developing product attributes

Conjoint analysis is a useful tool in developing new products and resolving the trade-offs between product attributes. Conjoint analysis was introduced in 1920 and was used widely from the beginning of the 1970s for purchasing decisions

[12], [13]. Because of the comprehensive research and many applications of conjoint analysis in marketing, transportation, product design, and many other industries, the analysis is also used in the design and assessment of product. However, scarcely did researchers analyze product attributes. The writer mostly uses some researchers using conjoint analysis for the information systems management.

Lee and Rim [14] apply conjoint analysis for the measurement of user preferences on information systems using seven properties and three levels for each property. To apply the approach, two surveys are designed: the first survey investigates the main properties affecting the end-users' satisfaction for using the current information systems based on literature review and expert interview in Phase I. The second survey weighs the preferences by the virtual profiles of the information systems, which represent the ideal systems.

Other example, Wyatt et al. [15] conduct a research for general practitioners' (GP) preference for a medical information system, whereas Schwarz et al. [16] apply the analysis to determine important factors for information system outsourcing. The analysis has also been used to examine consumers' preferences for e-book readers [17], [18] it investigates the key determinants of internet banking service quality, such as banking service, customer service quality, and online systems quality using content analysis. The online systems quality factors include content, accuracy, ease of use, timeliness, aesthetics, and security. Among them, they found ease of use and accuracy are the key dimensions.

The content analysis for these dimensions could be converted into relative importance by using conjoint analysis. In the study, the writer creates four different attributes that are divided into fifteen different levels. They are quality of product level, feature facility, augmented features, and product design in accordance with consumers' needs.

#### *b. Operational Variables and Measurement Scale*

According to Sugiyono [19], the variables of research are attribute or nature or value of a person, an object or an event which has particular variety determined by the research to be observed and to be concluded. Meanwhile, Zikmund [20] argues that variable is something that varies or changes from one example to another example. A variable usually shows the difference of a value, for instance, mass, strength, and direction. In conjoint analysis, the term of variable is called as an attribute, and the sub-attribute is called a level. According to Hair et al [21], in determining a level, we have to see the actual condition of reality, and the irrelevant and unrealistic level has to be eliminated. Hence, the level determining in this research has been adjusted in accordance with the actual condition.

The attributes used in the research of preference about social messenger are taken from the theory of product attributes proposed by Kotler and Armstrong [8]. That attributes are quality of product, feature of product, style and design of product. In the table 3.1, it will be explained more details about the variables used.

Table 1. Operational Variables

Attribute	Degree	Level
Quality of product level	1	A product which has complete service and high quality.
	2	A product which sends messages quickly.
	3	A product which is able to be used easily.
Feature Facility	1	Free Chat
	2	Free Call
	3	Video Call
	4	Voice Call
	5	Sticker
	6	Chat Group
Augmented Features	1	Game
	2	Official Accounts
	3	Sticker Shop
The design is accordance with consumers' needs.	1	Themes which can be changed as desired.
	2	Backgrounds which can be changed as desired.
	3	It has fascinating display.

#### *c. Measurement Scale*

Sugiyono [19] says that measurement scale is an agreement used as a reference to determine the length of an interval in a measuring device. According to Sekaran and Bougie [22], a scale is an instrument or a mechanism where it is used by an

individual to distinguish one variable to another variables which are used in the research. In this research, the scales used are nominal and ordinal scale.

Martono [23] explains that nominal scale is a scale which is used to classify an object or an event into a particular group so that the similarities and the difference of certain characteristics can be observed. According to Sekaran [24], nominal scale is a measuring scale which depicts categories, or groups of a subject. In this research, the nominal scale is used in the question of respondents' profiles which exist in the questionnaire.

According to Rangkuti [25], ordinal scale aims to differentiate among the categories in a variable with an assumption that there is an order and a level of scale. The ordinal numbers tend to show the rank order. Meanwhile, Sekaran and Bougie [22] argue that ordinal scale is a scale which not only classifies the existing variable but also gives the rank among those categories. In this research, the ordinal scale is used in the question which refers to the respondents' preference.

#### d. Population and Sample

Based on Zikmund [20], a population is an entire set of elements which are able to give a datum resulted from a research. According to Sedarmayanti [26], a population is whole set of characteristics of an observed object. Meanwhile, Sugiyono [19] says that a population is a generalization area which consists of object or subject which has particular quality and characteristic set by the research to be learned and to be concluded. In this research, the population used is social messenger users in Bandung.

According to Sedarmayanti [26], a sample is an observed small group and is a part of population so the nature and characteristic of population are also owned by the sample. Additionally, Sugiyono [19] says that a sample is a part of the amount and the characteristic owned by population. If the population is big, and the research is not possible to discover all things in that population. For instance, because of limited funds, energy, and time, the research will use the sample which is taken in that population.

Since the number of population is unknown, the writer uses Bernoulli equation, as in the following, whenever he wants to determine the number of samples to be observed:

$$n \geq \frac{[z_{\alpha/2}]^2 p \cdot q}{e^2} \quad (1)$$

Explanation:

$n$ = the minimum numbers of sample

$Z$  = Square of interval confidence

$\alpha/2$  = Trust level which is still acceptable (95% = 1,96)

$e$  = Error rate which is still acceptable

$p$  = Estimate of success proportion

$q$  = Estimate of failure proportion /  $1-p$

This research uses 95% trust level so it is obtained the value of  $Z = 1.96$ . The error rate is determined by 5%. Meanwhile, the probability of right (acceptable) or rejected (wrong) questionnaire is 0.5 for each. Based on the accuracy level, trust level, the value of  $Z$ , error rate and the acceptable probability which have been determined, it is further put into Bernoulli formulation equation:

$$n \geq \frac{(1.96)^2 \cdot 0.5 \times 0.5}{(0.05)^2} = 384 \quad (2)$$

The numbers of the samples taken are  $n \geq 384$  samples. In this research, 400 respondents are as samples. According to Sugiyono [19], sampling technique is a technique to take the samples. The sampling in this research uses *nonprobability* sampling, which is the sampling by giving unequal opportunities to the related elements as the samples. Subsequently, the sampling technique used is purposive sampling.

Based on Martono [23], purposive sampling is a technique to determine samples where the researcher sees a certain consideration. In this research, the researcher chooses his own respondent which will be sampled in which the research outline is suitable, really known, or have competence for this research. In this research, the writer chooses the consumers or people in Bandung who have been using social messenger.

### 3. Results and discussions

#### a. Importance value and entire utility value

From the results of conjoint analysis data using SPSS b.20, it is obtained that the overall importance value of each attribute.

From Table 2 and 3, it is shown that the attribute of feature facility is the attribute which has the highest importance level by 48.361., followed by the attribute of augmented features with 18.552 of importance value, the attribute of product quality level with 17.731 of importance value, and the lowest importance value is the attribute design which is in accordance with consumer's needs by 15.256.

Table 2. The Overall importance value of each attribute

<b>Attribute</b>	<b>Utility</b>	<b>Level</b>
	-0.094	A product which has complete service and high quality.
Quality of Product Level	-0.106	A product which sends messages quickly.
	0.200	A product which is able to be used easily.
	0.603	Free Chat
	0.154	Free Call
Feature Facility	0.231	Video Call
	-0.450	Voice Call
	-0.538	Chat Group
	0.130	Game
Augmented Features	-0.058	Official Accounts
	-0.072	Sticker Shop
Design which is in accordance with consumers' needs.	-0.128	Themes which can be changed as desired.

Table 3. Importance Level of Each Attribute

<b>Importance</b>	<b>Attribute</b>
17.731	Quality of Product Level
48.361	Feature's Facility
18.552	Augmented Features
15.256	Design which is in accordance with consumers' needs

#### b. Ideal Profile of Respondents as a Whole

The preferences desired by the consumers about social messenger can form an ideal profile which is desired by the respondents as a whole.

Table 4. Attribute Preference

Attribute	Level
Quality of Product Level	A product which is able to be used easily
Feature Facility	Free Chat
Augmented Features	Game
Design which is in accordance with consumers' needs.	It has a fascinating display

The table above shows that in choosing social messenger, the respondents desire a social messenger with the quality of product level that is able to be used easily, with the following feature facilities such as free chat, as for the augmented feature, it has a game with the design which is in accordance with consumers' needs, having a fascinating display for example.

#### 4. Conclusions

Based on the research done by the writer, a conclusion can be drawn about consumers' preferences in using social messenger in Bandung. The level is ranked from the highest importance level; The attribute which has the highest until the lowest importance level are (1) Feature Facility, (2) Augmented Features, (3) Quality of Product Level, whereas the lowest; (4) Design which is in accordance with consumers' needs.

In this research, it can also be known the preference of each level in each attribute by seeing the utility value, or in other words, the part that is worth. For the feature facility, the respondents tend to like free chat with 0.603 of its utility value. For the augmented feature, the respondents tend to like game with 0.130 of its utility value. For quality of product level, the respondents tend to like the product which is able to be used easily with 0.200 of its utility value, and for design which is in accordance with consumers' needs; the respondents tend to like the product which has fascinating display.

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## Analysis of Cyber Learning Application Implementation and Use of E-learning Content for Learning Quality Improvement in Higher Education

(Case Study at Sultan Agung Islamic University-UNISSULA)

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### Abstract

The implementation of e-learning has become a demand for Higher Education, with the provision of the management of Sultan Agung Islamic University (UNISSULA) which require the lecturer to upload teaching material on the application of Cyber Learning, the lecturer was able to maintain the intensity of communication with the students without the constrained of space and time. The research was conducted by analyzing the activity of learning with the application of the use of cyber-learning and e-learning contributes for students as well as identifying factors that influence the successful implementation of learning systems with cyber learning. This study uses questionnaires, referring kracie table. The assessment was using a Guttman scale, so that the existing data is nominal data. The results of validity and reliability testing of the questions and answers contained in the questionnaire respondents. This research make the conclusion that students are familiar with the cyber learning application, but the benefits that have not been obtained and has no effect to increase the performance index of student. Overall the system components and applications of e-learning in UNISSULA was good expressed by the majority of student respondents and was able to support the implementation of the course with e-learning models.

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*Keywords:* e-learning; cyber learning; chi-square; Improving the Quality of Learning.

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### 1. Introduction

The implementation of e-learning as a means to improve the quality of learning an educational institution has become a necessity, the principle of the implementation of e-learning is providing services in the field of information technology (academic) faster, better, and easier for the academic community. Implementation of e-learning can encourage creativity and enhance the professionalism of lecturers and students in implementing the *Tri Dharma Perguruan Tinggi*, the education and teaching, Society Researches and Dedications [1]. The existence of e-learning is naturally make the lecturers moved to prepare and make teaching materials (soft copy) be as attractive as possible, lecturers are able to maintain the intensity of communication with the students without the constrained space and time. The existence of e-learning enables interaction between faculty and students through the Internet and network access services e-learning website.

Sultan Agung Islamic University (UNISSULA) as one of the leading universities in Central Java are expected to provide the best service for students. Therefore UNISSULA support the existence of e-learning as a means for improving the quality of services in the learning process, some effort to support the college management policy has been made, such as the provision of supporting internet access in the campus environment, training in the use of e - learning for faculty and

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students, Certificate of teaching that will only be given if the professor has been uploaded material on e-learning media. E-learning or cyber-Learning applications, this Moodle-based application services can be enjoyed UNISSULA faculty and students for more than four years, so it takes a research study whether the program has been run and has been able to provide benefits in accordance with the plan. The study was conducted by analyzing the activity of learning with the application of the use of cyber-learning and e-learning contributes to students as well as identifying factors that influence the successful implementation of learning system with cyber learning application.

This study identifies whether cyber-learning facilities as well as e-learning content has been familiar to use and contribute to the students to improve academic performance index, identify what factors may affect the successful implementation of learning systems with cyber learning.

## 2. Material and Method

### 2.1. E-learning definition

According to Sohn (2005) in Surjono [2]. E-learning is short for electronic learning. E-learning contains a very broad sense, so many experts who elaborate on the definition of eLearning from various viewpoints. [3]. stated as follows:

- E-learning is learning at a distance that uses computer technology (usually the Internet).
- E-learning enables employees to learn at their work computers without traveling to a classroom.
- E-learning can be a scheduled session with an instructor and other students, or it can be an on-demand course that the employee can take for self-directed learning at a time when it's convenient.

One of common definition of e-learning is given by Gilbert & Jones (2001) in Surjono [2] that the delivery of learning material through an electronic medium such as the Internet, intranet, satellite broadcast, audio / video tape, TV interactive, CD-ROM, and computer-based training (CBT). Similar definition is also proposed by the Australian National Training Authority (2003) which includes applications and processes that use a variety of electronic media such as the Internet, audio / video tape, interactive TV and CD-ROM learning materials in order to deliver more flexible. One of the accepted definition of many parties is the definition from Darin E. Hartley [4], which states that e-Learning is a type of learning system that allows the teaching materials to be conveyed to the students using the media of the Internet, Intranet or other computer network media. Diana [5] summarizes the meaning or definition of e-learning from multiple experts to be as follows:

- a. New teaching and learning method that uses computer networks and internet media
- b. Teaching materials conveyed through electronic media, automatic form of teaching materials as well as in digital form.
- c. The existence of electronic systems and applications that support the teaching and learning process.

The components that make up an e-learning according to Diana [5] are:

- a. Infrastructure of e-learning, can be a personal computer (PC), computer networks, internet and multimedia equipment, including teleconference equipment if necessary.
- b. Systems and applications such as e-learning software systems virtualize conventional teaching and learning process.
- c. E-learning content, content and learning materials that exist in e-learning multimedia system in the form of text-active and can be accessed by students anytime and anywhere as long as it is connected to the Internet.
- d. Actor, consists of lecturers and students who receive teaching materials as well as the administrators who manage the administration and the teaching and learning process.

### 2.2. Measurement Scale Questionnaire

Based on the figures used in the data collection questionnaire (questionnaire), there are several scales used, namely: the Likert scale, scale Guttman, Thurstone scale, rating scale (rating scale), and semantic differential.

#### a. Likert scale

This scale is used to measure the attitudes, opinions, perceptions about a person or group of people who want to know a particular phenomenon. In a Likert scale questionnaire is usually accompanied by 5 answers, for example *Sangat Setuju* (SS), *Setuju* (S), *Netral* (N), *tidak Setuju* (TS) and *sangat tidak Setuju* (STS).

So that researchers can easily determine whether a respondent answers with a really - really or abroad - random, the questionnaire should be prepared based on positive statements and negative statements. For positive statements, answer scores ranging from number 5 to SS, 4 for S, 3 for N, 2 for TS, and 1 for STS. As for the negative statement is the opposite.

Table 1. Examples of Likert scale statements

No	Statements	The Answer				
1.	Lecturer ability for teaching has been in line with expectations and desires of me.	SS	S	N	TS	STS
2.	Lecturer coming late for teaching in the classroom	SS	S	K	J	TP

Note :

- SS = Sangat Setuju, S = Setuju, N = Netral, TS = Tidak Setuju, STS = Sangat Tidak Setuju
- SS = Sangat Sering, S = Sering, K = Kadang - kadang, J = Jarang, TP = Tidak Pernah

b. Guttman scale

This scale is used to measure a firm and consistent about the attitudes, opinions, perceptions about a person or group of people who want to know a particular phenomenon. In a Guttman scale is only provided two alternative answers, such as yes - no, agree - disagree, never - never. The value written in this scale are 0 and 1, or 1 and 2 where the figure is a nominal or ordinal scale categories

Table 2. The example statement of Guttman scale

No	Statements	The Answer	
1.	Lecturers have fulfilled 14 times attendance in accordance with schedule.	Yes	No
2.	Lecturer provides penalties on students who are often late to class	Agree	Not Agree

c. Thurstone scale

This scale is used to measure the attitudes, perceptions of a person or group of people about a particular phenomenon that we want to know.

d. Rating Scale

Respondents provide an assessment of the statements given by way of scoring has been provided so that the results of the respondents' answers will form the quantitative data (numeric) which would then be converted into qualitative data by researchers

e. Semantic Differential

Used to measure attitudes that are not multiple choice or checklist, but compiled a continuum line is very positive that the answer lies in the extreme right of the line, while a negative answer lies at the extreme left of the line, or vice versa. Respondents could provide an answer to the positive and negative range

### 2.3. Determination of Sample Size

The number of samples is often expressed by members of the sample size. The number of samples is 100% representative of the population is the same as the population. The greater the number of samples closer to the population, then the chances of generalization error gets smaller and smaller otherwise the number of samples away from the population, the greater the generalization error [6]. There are several methods of determining the number of samples in the study. Is there a method by using the calculations (formula applications) there is also a practical way to look at the table and nomogram Krejcie Harry King [6].

a. Calculation formulas

When the sample size is more than 100,000, the researcher could not see the table again. Therefore, researchers should be able to calculate its own. There are 2 formula is: unknown standard deviation and the standard deviation is known.

For the calculation formula of the unknown sample standard deviation is as follows:

$$n \geq \frac{pq}{d^2} \quad (1)$$

Note:

n = population size required

p = percentage hypothesis ( $H_0$ ) is expressed in units of magnitude opportunity = 0.5

q =  $1 - 0.5 = 0.5$

$\sigma_p$  = difference between estimated on the working hypothesis ( $H_a$ ) with the null hypothesis ( $H_0$ ) divided by Z at a given confidence level

The calculation of the unknown sample standard deviation is as follows:

$$n \geq \left[ \frac{\sigma_p}{d} \right]^2 \quad (2)$$

*Note :*

n = sample size required

b = the difference between the estimated benchmark interpretation

z = the price depends on the specified confidence level (table z)

$\sigma$  = standard deviation

b. Determination of Sample With Tables and nomogram Krejcie Harry King

Krejcie in the calculation of sample size was based on an error of 5%. So it has obtained a sample of 95% of the population. Table Krejcie shown in Table 3. Example of the table it is seen when the total population of 100, the sample is 80, if the population is 100, the number of samples is 278.

Table 3. Table for determining needed size S of a randomly chosen sample from a given finite population of N cases such that sample proportion will be within +0.5 of the population proportion P with a 95 % level of confidence

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Harry King calculate the sample was not only based on an error of 5%, but varies up to 15%. But the amount of the highest population when the population is only 2000 Example 200, confidence in the sample represents 95% of the population, the sample size is about 58% of the population. So  $12.58 \times 200 = 116$ . When a population of 800, 90% confidence sample or 10% error, the number of samples = 7.5% of the population. So  $0.075 \times 800 = 60$ .

## 2.4. Validity and Reliability Measurement

### 2.4.1 Validity

Validity means the extent to which the precision and accuracy of a measuring instrument in carrying out the measuring function. A test or measuring instrument can be said to have high validity if the device is able to run a measuring function. When used questionnaire, the questionnaire must be able to measure what is desired [7]. An item is declared valid if the correlation points with positive factors and opportunities errata p of the correlation maximum of 5%

Method of testing the validity of:

- Operationally define the concept to be measured.
- To test the meter scale to the number of respondents
- Preparing answers tabulation table.
- Calculate the correlation between each statement with a total score correlation technique using the formula (product Moment) as follows :

$$r = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{N \sum X^2 - (\sum X)^2} \sqrt{N \sum Y^2 - (\sum Y)^2}} \quad (3)$$

Note:

N = Number of sample.

X = each item Question Scores.

Y = Score Total Item Question

Statistically, the correlation numbers obtained should be compared with figures criticism Table Correlation values - r. How to know the number of criticism is seen on line N - 2.Taraf significance used was 5%. If the numerical value obtained is less criticism than criticism numbers correlation table grades - r then the data is not significant, it means that the statement is not valid.

#### **2.4.2 Reliability**

Reliability is an index that indicates the extent to which a measuring instrument can be trusted. Questionnaire can reflect the value of the satisfaction dimensions of reliability, the questionnaire should demonstrate high reliability. Reliability measurements performed with Cronbach Alpha statistical test. A reliable if the measurement is said to have a measurement coefficient (Cronbach Alpha) of 0.6 or greater (>) than 0.6. The measurement results can be trusted only if the number of times the implementation of measures against the same group of subjects who obtained relatively similar results, as long as the measured aspect in the subject is not changed [7].

#### **2.5. Chi Square testing ( $X^2$ )**

Chi Square distribution is a distribution with a continuous random variable. Chi Square distribution shape is determined by the degree of its free. For the Chi Square distribution with degrees of freedom v, mode and the peak value of the curve will be located at  $X^2 = v-2$ . Chi-square value is always positive, because the value is the sum of squares of the standard normal variable Z. The distribution of  $X^2$  starting from point zero skew to the right and has a very long tail. If a very large degree independent, then  $X^2$  distribution approaches a normal distribution [8].

### **2.6. Research Methods**

#### **2.6.1. The first stage**

The early stages the study is to conduct a literature study, to provide an overview of the basic theory that can be applied in the study, and then to identify the problem, problem formulation, goal setting research, the determination of the limits of research. After that, armed with the literature study and the issues to be investigated, then drafted a questionnaire as a means to obtain information related to the use and utilization of cyber learning. Here are the questions.

Table 4. Item questionnaire questions

No.	Item Question
1.	You are a student who has a laptop / computer
2	You are a student who usually use the internet facility
3.	You are a student who constantly (every day) use the internet
4.	You are a student who has an account to log into cyber learning
5.	You are very familiar with the application of cyber learning
6.	You often access the cyber learning to support your learning process
7.	You have to know the function of the menu on the application of cyber learning
8.	You have been accustomed to send your assignments via the class of cyber learning
9.	The assignments that you send through cyber learning is always accepted by the lecturer
10.	You always download the material lecturer in cyber learning
11.	<i>Cyber learning is needed in teaching and learning activities</i>
12.	Every faculty in your department has been using the facilities of cyber learning
13.	Lecturers always upload the material in the cyber learning
14.	Lecturers are already using the facility of cyber learning when given a task, giving announcements, discuss and implement quizzes
15.	Your lecturers has given lecture material in a cyber classroom learning (uploaded material) before the class begins
16.	The existence of a class of cyber learning can replace face-to-face method between lecturers and students in a real classroom
17.	Cyber classroom learning more interesting than the real class

No.	Item Question
18.	The existence of cyber-learning classes help you learn if you are left behind in the material given in class lecturers
19.	The existence of cyber learning during class is able to be a smooth process of teaching and learning support
20.	Utilization of cyber learning has been able to improve the quality of teaching and learning in your department
21.	Utilization of cyber learning class has been able to help improve students' academic performance index
22.	Cyber learning has optimal function where students and lecturers can collaborate actively in class of learning Cyber
23.	Class is more fun than the real class from lecturers and students can interact with utilizing existing menu
24.	You are satisfied with the learning process through cyber learning which has been running
25.	features that exist in cyber learning already suitable for online learning
26.	Display material softcopy of lecturers contributing influence student motivation to learn
27.	Your lecturers has made a softcopy display interesting and creative in the cyber classroom learning
28.	The information provided by the lecturers in cyber-learning is more complete than the information in the real classroom
29.	Students prefer the presentation of material in the format of Ms. Word compared to the power point format
30.	Computers are available on campus enough to access the internet
31.	There are sufficient computers for internet access in each faculty – each
32.	You access the Internet with a personal modem when on campus
33.	You access the internet with the facilities provided by the campus network UNISSULA
34.	Wi Fi / Hotspot areas can be found and accessed easily in the environment UNISSULA
35.	You are often use Wi-Fi to access the internet from the modem if the person on campus
36.	You are satisfied with the facilities available in the campus Wi-Fi UNISSULA
37.	You access the services of cyber learning UNISSULA from url : <a href="http://www.unissula.ac.id">www.unissula.ac.id</a>
38.	You access the services of cyber learning UNISSULA from url : <a href="http://www.cyberlearning.unissula.ac.id">www.cyberlearning.unissula.ac.id</a>
39.	Portal of Cyber learning UNISSULA very easily accessible anywhere, anytime from any Internet-connected students
40.	Cyber learning has online helpdesk service that can be accessed by users
41.	Admin cyber learning easily contacted when there is a problem in the cyber learning
42.	Admin cyber-learning provides a quick response when there is a problem with the account owner cyber learning
43.	Admin cyber learning always be polite and pleasant when contacted student-related issues in the class of cyber learning

Distribution of the components forming the e-learning and the benefits derived from the implementation of e-learning are as follows:

- a. Infrastructure of e-learning : questionnaire No. 1, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40
- b. System and application of e-learning : questionnaire no 7, 25, 40
- c. The content of e-learning : questionnaire No. 9, 15, 17, 26, 27, 28, 29
- d. Actor : questionnaire No. 2, 3, 4, 5, 6, 8, 10, 12, 13, 14, 22, 23, 41, 42, 43
- e. Benefits of e-learning : questionnaire No. 11, 16, 18, 19, 20, 21, 24

#### 2.6.2. Data Collection stages

After the questions for the questionnaire is completed questionnaire followed by the deployment process. Based on the table, for a population of 10000 people, the minimum number of samples to be taken is 370 question questionnaire was developed by 43 items. And assessment is done by using a Guttman scale ("yes" or "no"). So that the existing data is

nominal data.

a. Identification of Respondents

Respondents in this study were students and registered as a student UNISSULA active until the academic year 2011/2012. Currently Sultan Agung Islamic University (UNISSULA) has 12 faculties were divided into 28 courses. The total number of students amounted to 10845 students.

b. Questionnaire distribution

Data mining of student opinion about the implementation of Cyber Learning is done by Simple Random Sampling. 1000 questionnaires were distributed, it means that the 1000 samples is the subject of the respondents in the inclusion criteria, from the 1000 sample contained 384 samples that included in the exclusion criteria, consisting of 300 respondents that does not return the questionnaire or assumed respondents cancel filling the questionnaire and 84 respondents did not answer questions in the questionnaires consistently or field results cannot be read properly, so it can be concluded that only 616 questionnaires were declared eligible to be processed.

#### *2.6.3. Data Processing and Analysis stages*

After the questionnaire data collected, tested the validity and reliability test and answer the questions contained in the questionnaire respondents. Data is valid if the value of the product moment ( $r$ ) is greater than the table value. The data is reliable if the test results of questionnaires showed values  $> 0.6$ . Invalid data will be discarded and re-testing. Meanwhile, if there are concerns about validity and reliability, then continued with the chi square test (hypothesis testing). This test is done because the shape of the data respondent nominal data.

a. Data Sufficiency test

The number of questionnaires were processed as many as 616 of 10845 the eligible student population of UNISSULA.

b. Validity and reliability of data

Validity in the questionnaire can be calculated with manual calculations (Excel >> Pearson), with the following results:

Table 5. Validity Questionnaire test

Item Question	Value Product Moment	Table value	Description	Item Question	Value Product Moment	Table value	Description
1	0.107	0.08	Valid	23	0.364	0.08	Valid
2	0.229	0.08	Valid	24	0.61	0.08	Valid
3	0.169	0.08	Valid	25	0.5	0.08	Valid
4	0.325	0.08	Valid	26	0.366	0.08	Valid
5	0.46	0.08	Valid	27	0.55	0.08	Valid
6	0.53	0.08	Valid	28	0.514	0.08	Valid
7	0.513	0.08	Valid	29	0.276	0.08	Valid
8	0.52	0.08	Valid	30	0.399	0.08	Valid
9	0.49	0.08	Valid	31	0.4	0.08	Valid
10	0.5	0.08	Valid	32	0.154	0.08	Valid
11	0.341	0.08	Valid	33	0.37	0.08	Valid
12	0.53	0.08	Valid	34	0.37	0.08	Valid
13	0.541	0.08	Valid	35	0.311	0.08	Valid
14	0.6	0.08	Valid	36	0.375	0.08	Valid
15	0.56	0.08	Valid	37	0.51	0.08	Valid
16	0.473	0.08	Valid	38	0.45	0.08	Valid
17	0.45	0.08	Valid	39	0.45	0.08	Valid
18	0.511	0.08	Valid	40	0.52	0.08	Valid
19	0.58	0.08	Valid	41	0.48	0.08	Valid
20	0.59	0.08	Valid	42	0.5	0.08	Valid
21	0.535	0.08	Valid	43	0.55	0.08	Valid

Item Question	Value Product Moment	Table value	Description	Item Question	Value Product Moment	Table value	Description
22	0.356	0.08	Valid				

After testing the validity then testing reliability. Reliability test results are as follows

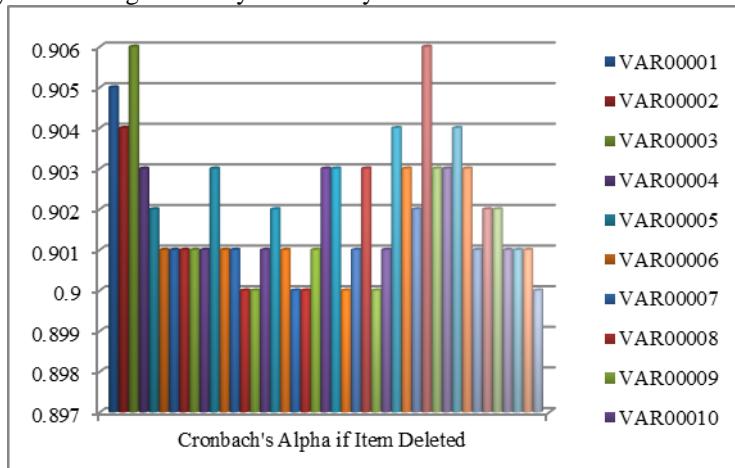


Fig. 1. Test of Reliability per item questionnaire

Data can be declared reliable measurement because of the value of the coefficient (Cronbach Alpha) of 0.6 or greater (>) of 0.6

### c. $\chi^2$ Test (Chi Square)

Having tested the validity and reliability testing hypothesis test is then performed with the chi-square test to determine whether there are similarities or differences of the respondents gave their answers to the questionnaire.

Chi Square Test Item Question 1 and then calculation and testing a similar hypothesis was also performed on the respondents' answers to the questions 2 to 43 in the questionnaire

Table 6. Calculation of Chi Square recapitulation of all Item Question

Question item	Chi Square calculation	Chi Square Table	Description	Question item	Chi Square calculation	Chi Square Table	Description
1	57.88	19.675	Ho rejected	23	100.39	19.675	Ho rejected
2	52.28	19.675	Ho rejected	24	59.19	19.675	Ho rejected
3	52.99	19.675	Ho rejected	25	93.09	19.675	Ho rejected
4	45.79	19.675	Ho rejected	26	31.3	19.675	Ho rejected
5	68.05	19.675	Ho rejected	27	95.20	19.675	Ho rejected
6	89.59	19.675	Ho rejected	28	16.96	19.675	Ho accepted
7	102.81	19.675	Ho rejected	29	132.46	19.675	Ho rejected
8	70.89	19.675	Ho rejected	30	38.18	19.675	Ho rejected
9	157.80	19.675	Ho rejected	31	43.44	19.675	Ho rejected
10	72.19	19.675	Ho rejected	32	25.97	19.675	Ho rejected
11	58.73	19.675	Ho rejected	33	14.7	19.675	Ho accepted
12	70.55	19.675	Ho rejected	34	36.17	19.675	Ho rejected
13	97.57	19.675	Ho rejected	35	17.85	19.675	Ho accepted
14	115.57	19.675	Ho rejected	36	18.18	19.675	Ho accepted

Question item	Chi Square calculation	Chi Square Table	Description	Question item	Chi Square calculation	Chi Square Table	Description
15	68.41	19.675	Ho rejected	37	72.43	19.675	Ho rejected
16	39.26	19.675	Ho rejected	38	41.14	19.675	Ho rejected
17	40.42	19.675	Ho rejected	39	60.91	19.675	Ho rejected
18	74.79	19.675	Ho rejected	40	75.84	19.675	Ho rejected
19	102.71	19.675	Ho rejected	41	55.54	19.675	Ho rejected
20	54.01	19.675	Ho rejected	42	75.92	19.675	Ho rejected
21	41.91	19.675	Ho rejected	43	89.80	19.675	Ho rejected
22	59.26	19.675	Ho rejected				

#### 2.6.4. Conclusions stages

Contains the answers of research results is a summary of the discussion and the proof of the statement or the problems associated with the implementation of cyber learning in UNISSULA.

Flow chart of the research methodology can be seen in the following Figure:

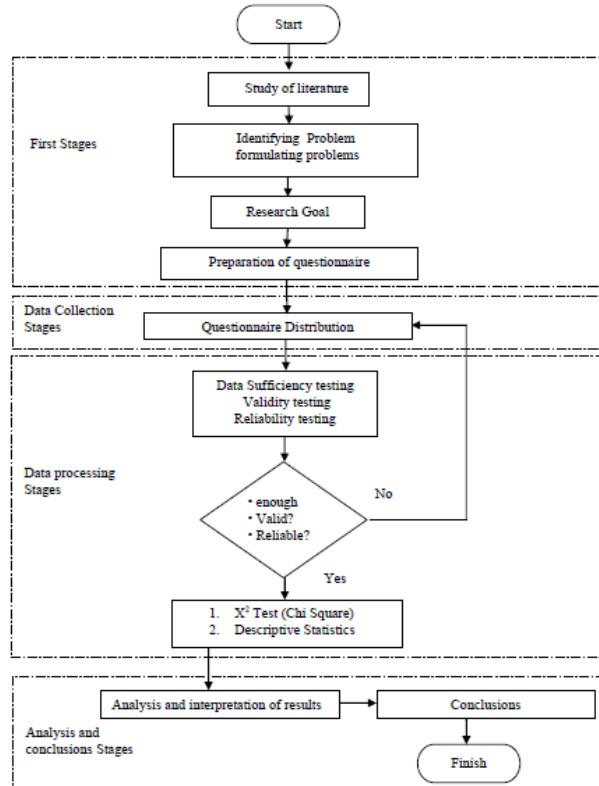


Fig. 2. Flowchart of research methods

### 3. Results and discussions

#### 3.1. Data Sufficiency Test

The number of eligible questionnaires were processed. 616 refers to UNISSULA student population, amounting to 10845, then based on the number of data tables Krejcie stated enough. Based on a population of 10000 krejcie table for the number of samples is 370, and for a population of 15000 people, the number of samples is 375.

Having tested the validity and reliability was found that all of the questions is valid and reliable. Validity stated accuracy

and precision of a measuring instrument. While the reliability of a measure indicates the extent trustworthy or reliable.

### 3.2. Discussions of $\chi^2$ (Chi Square)

From square test results who wanted to know whether the respondents' answers students from 12 faculties are similar or not. It appears that of 43 of the questions are only a small part question stating  $H_0$  is accepted. Based on the hypothesis that built it can be stated that only a fraction of the questions that are answered by the same student respondents in 12 faculties. This indicates that there are different conditions - different in 12 faculties associated with the implementation of *cyber learning*.

### 3.3. Discussions of Data Processing With Descriptive Statistics

Here are presented the results of data processing of the results of questions on the questionnaire in the format of descriptive statistics

#### 3.3.1. Infrastructure of e-learning :

- a. Item Question 1: is seen that the majority of students in 12 faculties of respondents stated that they have a personal laptop that is used in the learning process.
- b. Item Question 30: Respondents from 9 faculty expressed that their campus computer facilities are not reasonably available, the addition of computers needed for students in each faculty.
- c. Item Question 31: Question similar review was conducted to determine whether the correct answer is still the same student respondents associated with the presence of physical facilities to access the cyber classroom learning. Respondents from 9 faculty expressed insufficient computer facilities available
- d. Item Question 32: Respondents from 8 faculty over many claimed not.
- e. Item Question 33: Overall student respondents expressed that they always access the internet with Wi-Fi network facilities UNISSULA when on campus. This indicates that UNISSULA have internet network facilitated by the campus and the student needs in facilities where extremely high.
- f. Item Question 34: Respondents on average expressed that the Wi Fi or Hotspot areas can be found on campus and can be easily accessed.
- g. Item Question 35: Respondents on average often use Wi-Fi 33 for internet access than personal modem if it is on campus. It indicates that the student will need a very high smoothness of the Internet network.
- h. Item Question 36: Respondents were students of 9 faculty expressed no that is necessary to repair the existing facilities on campus Wi-Fi UNISSULA either in the form of network quality and quantity.
- i. Item Question 37: Respondents on average expressed that they access the services of a web of cyber learning UNISSULA from URL: [www.unissula.ac.id](http://www.unissula.ac.id). It indicates that students are familiar with UNISSULA website.
- j. Item Question 38: More than 60% of the average students of Unissula cyber-learning classes are accustomed to access from the web [www.cyberlearning.unissula.ac.id](http://www.cyberlearning.unissula.ac.id).
- k. Item Question 39: Most of the 12 students from the Faculty of respondents expressed very easily accessible anywhere, anytime from any Internet-connected students. This indicates that the cyber classroom learning any time can be easily accessed by the user as long as he is connected to the Internet

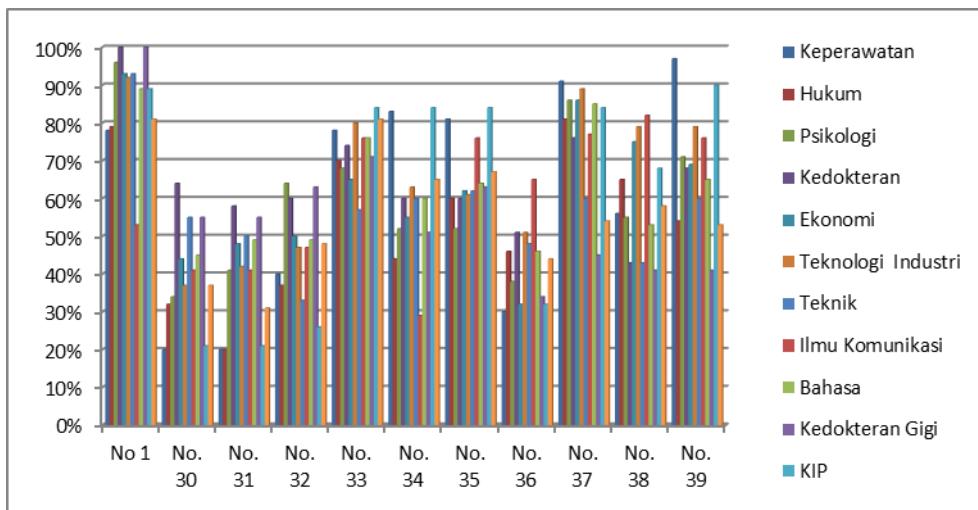


Fig. 3. Graph of Respondents answering "yes" to the infrastructure component

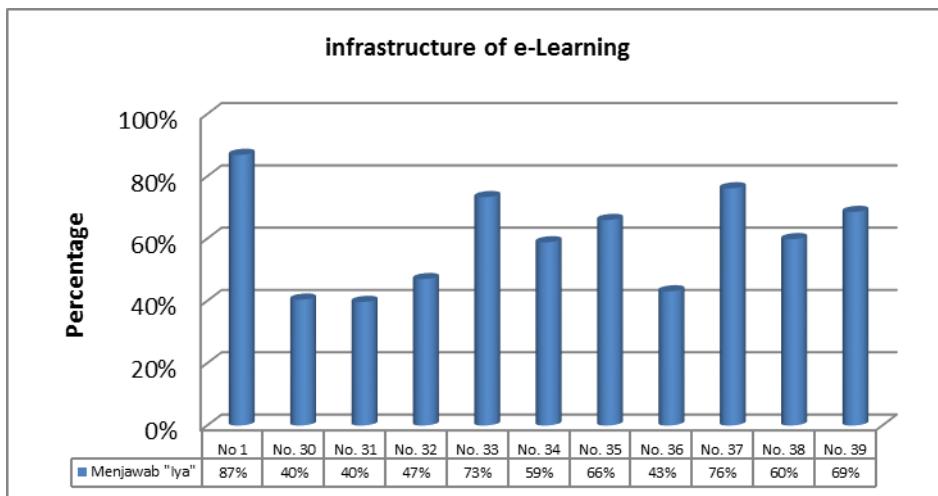


Fig. 4. Average percentage of respondents answering "yes" to the infrastructure component

From the factors of e-learning infrastructure can be known that the students will need physical facilities (computers and networks) is very high. There are some shortcomings that need to be addressed, namely: the number of computers available in each of the campus, the quality and quantity of Wi-Fi networks as a means of internet access.

### 3.3.2. Systems and e-learning applications :

- Item Question 7: From the respondents were distributed from 12 faculty, students of 5 faculty respondents expressed that they had been familiar with the functions of the menu - a menu that is in a class of cyber learning. While the student respondents from other faculties 7, less than 50% who claim to know the function of the menu on the cyber learning application.
- Item Question 25: Most of the students of 9 faculty respondents expressed that there has been appropriate menu or suitable for online learning.
- Item Question 40: Most of the respondents expressed that the student has a learning cyber services online helpdesk service that can be accessed by the user.

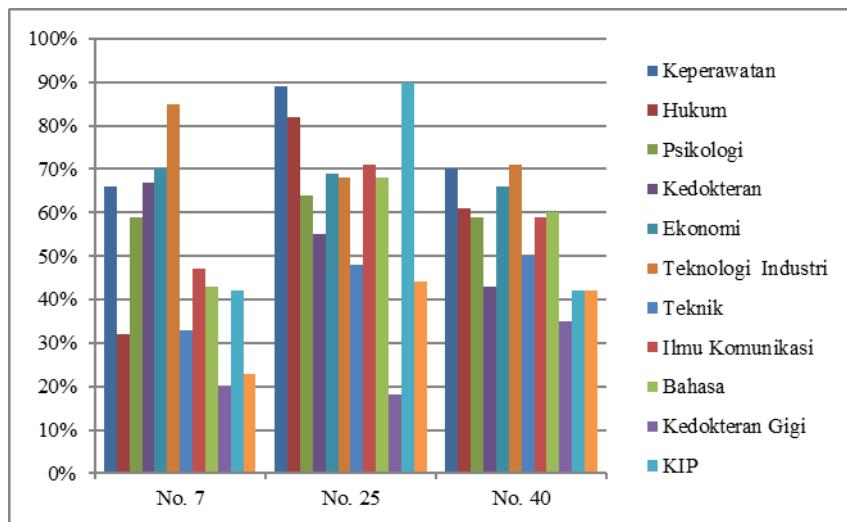


Fig. 5. Graph of Respondents answering "yes" to the components of system and e-learning applications

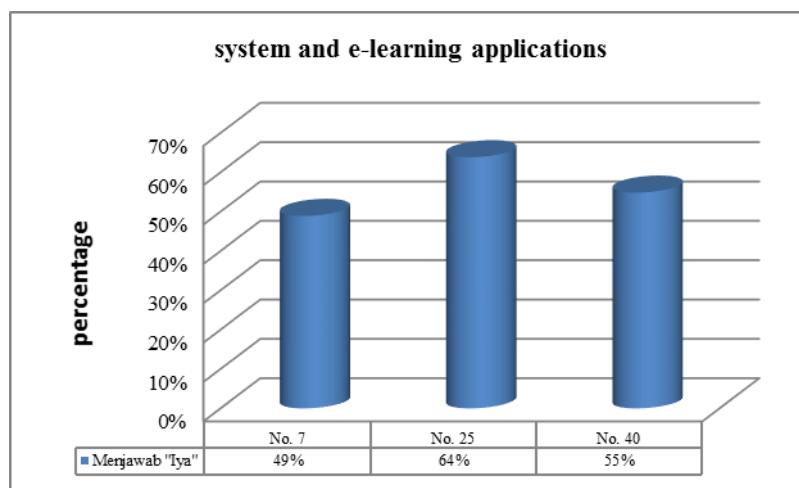


Fig. 6. Average percentage of respondents answering "yes" to components of system and e-learning applications

Overall the components of system and e-learning applications in UNISSULA already well and is able for supporting the implementation of learning with an e-learning model.

### 3.3.3. Content of e-learning :

- Item Question 9: Respondents from 8 faculties expressed their assignments send through cyber learning is always accepted by the lecturers who gave the assignments. This indicates that e-learning system has been running.
- Item Question 15: Respondents from 12 faculties answered "no". it indicates that not all lecturers in some faculty familiar with class of cyber learning
- Item Question 17: Almost the majority of respondents expressed students in 12 faculties cyber class is less attractive than the real class.
- Item Question 26: Most of the students expressed that the appearance of softcopy material contributing lecturers affect student enthusiasm for learning. Therefore, it is expected that the lecturers to be more creative in the process and display the material in the class of cyber learning.
- Item Question 27: More than 50% of respondents from 5 faculties expressed that lecturers has made a softcopy display interesting and creative in the cyber class learning.
- Item Question 28: Most of the respondents said no. This indicates that most of the lecturers in UNISSULA distributed in 12 faculties, yet cyber class manage them optimally.
- Item Question 29: In general, respondents tended to expressed "No".

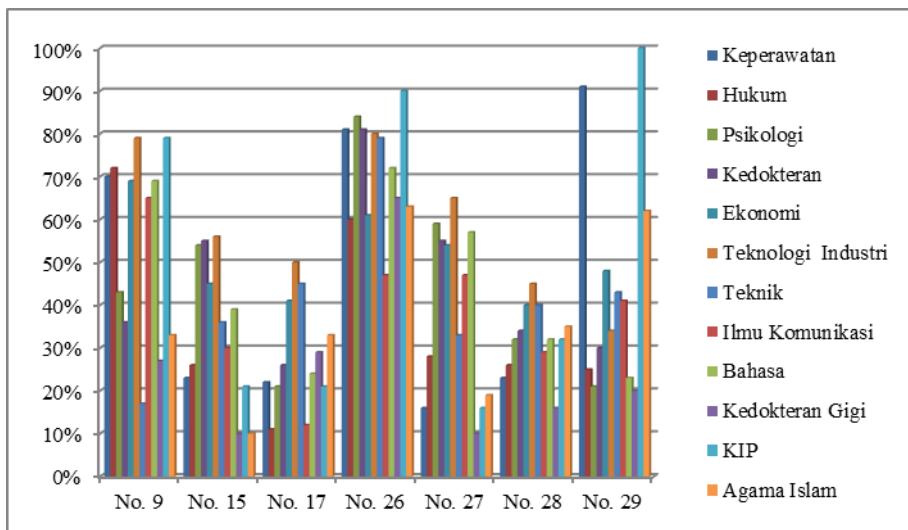


Fig. 7. Graph of Respondents answering "yes" to the components of e-learning content

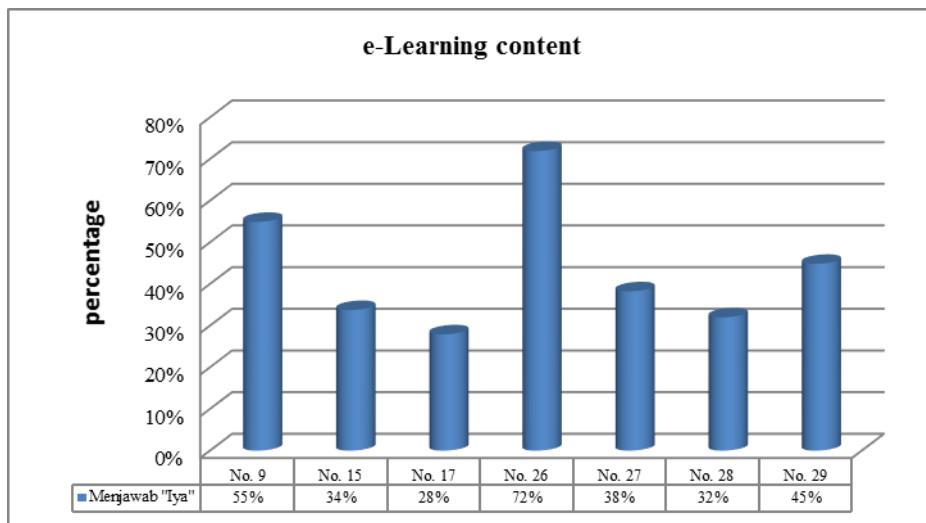


Fig. 8. Average percentage of respondents answering "yes" to the components of e-learning content

Content material affect student interest in class of cyber learning. If the information provided in the cyber class constantly updated, communicative and interactive, students will be interested in attending this class.

### 3.3.4. Actor

- Item Question 2: Most of the student respondents were distributed in 12 faculties expressed that they are accustomed to using the internet. It indicates that the student UNISSULA are familiar with information technology.
- Item Question 3: More than 50% of respondents expressed students almost every day they use the internet. This means that there is no reason for students not to access the class of cyber learning.
- Item Question 4: 85% of the respondents said they had cyber-learning account. This indicates that most of the students know that there is a class of cyber learning.
- Item Question 5: More than 50% of respondents from 8 faculty expressed they are very familiar with cyber-learning program, while students from 4 faculties, less than 50% of respondents say they are very familiar with cyber-learning programs.
- Item Question 6: More than 50% of respondents from 4 faculty declared that they frequently access the cyber-learning to support the learning process. While other faculty less than 50% of respondents who answered "yes". This factor could appear because the existing content on the cyber classes less updates, less informative, so that students are likely not interested in accessing.

- f. Item Question 8: Only the Faculty of Industrial Technology are more than 50% of the respondents used to send assignments through cyber classroom learning, while respondents from other faculties were less than the 50% who answered "yes". This indicates that the lecturers at FTI quite active gave the material in class of cyber learning.
- g. Item Question 10: Unless respondents from FIKOM, FKG, FAI, more than 50% of respondents admitted students from other faculties that they always download the material from the lecturers in cyber classes.
- h. Item Question 12: more than 50% of respondents from F.Psi, FK, FE, FTI every lecturers in the department expressed they have used the cyber-learning in teaching and learning. While other faculty less than 50% who answered "yes".
- i. Item Question 13: Less than 50% of respondents from 5 faculty who answered "yes" to the questions Lecturers always upload the material in the cyber classroom learning. Meanwhile, from the other faculties, more than 50% of respondents answered "yes".
- j. Item Question 14: There are some faculty that more than 50% of respondents expressed that they have made use of the facilities Lecturer cyber learning when given assignments, giving announcements, discuss and organize quiz.
- k. Item Question 22: On average 74.92% of all respondents expressed that Cyber student learning can function optimally if the students and lecturers are able to cooperate actively in class of Cyber learning.
- l. Item Question 23: Unless respondents from 3 faculties, 50% more respondents than other faculty expressed agreement that the class is more fun than the real class if lecturers and students can interact with utilizing existing menu
- m. Item Question 41: Most of the respondents of 3 faculty agreed with the statement that the admin cyber learning easily contactable when there is a problem in the cyber learning class, while the students of the faculty respondents most other claimed not.
- n. Item Question 42: Only respondents from 5 faculty of more than 50% of respondents agreed with the statement that the Admin cyber learning provides a quick response when there is a problem with the account of cyber learning.
- o. Item Question 43: Most of the respondents stated that the Admin cyber student learning always be polite and pleasant when contacted students on issues related to cyber learning class.

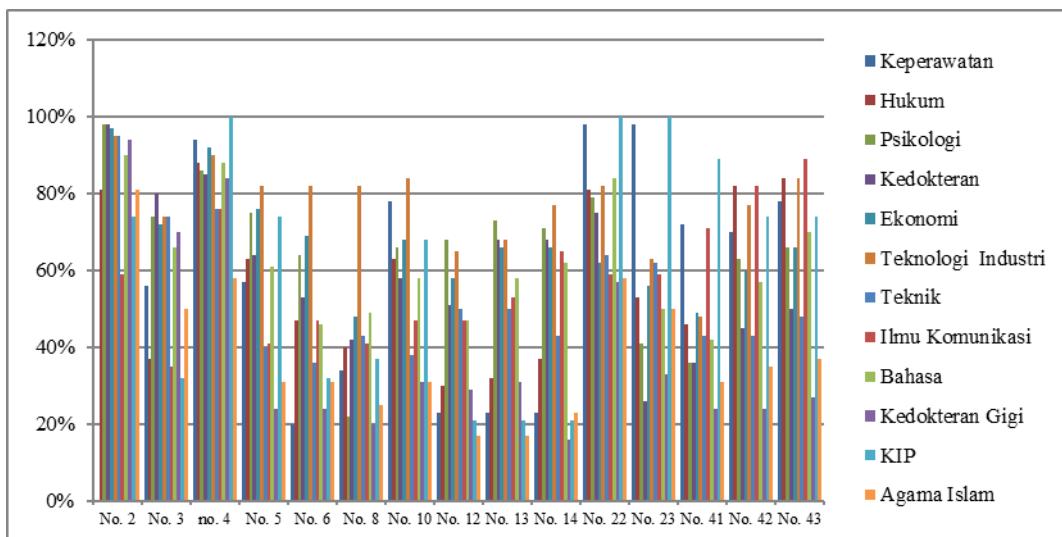


Fig. 9. Graph of Respondents answering "yes" to the actor component

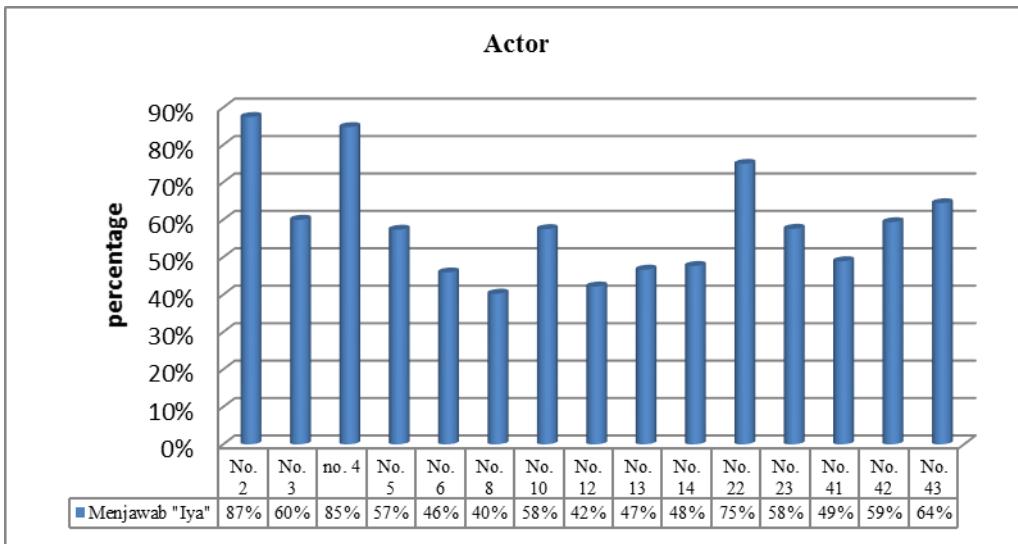


Fig. 10. Average percentage of respondents answering "yes" to the actor component

Actor factors indicate that the lecturers be a factor that affects the activity of cyber classes. Because lecturer is able to be a motivator for students to follow the cyber learning class

### 3.3.5. Benefits of e-learning:

- Item Question 11: 91% of respondents said cyber learning is important and needed in the teaching and learning activities. It means that students are aware with the functionality and usability of cyber learning.
- Item Question 16: Only respondents from the Faculty of Industrial Technology are more than 50% of respondents expressed existence of a class of cyber student learning can replace face-to-face method of lecturers and students in a real classroom
- Item Question 18: More than 50% of respondents expressed the existence of a class of cyber student learning can help the learning process if they have no material that was given by lecturers in class
- Item Question 19: More than 50% of respondents expressed that the use of cyber-learning has been able to be supporting the learning process
- Item Question 20: From 6 faculty, 50% of respondents expressed that the use of cyber-learning has been able to improve the quality of teaching and learning in their majors.
- Item Question 21: Only from FK, FE and FTI were more than 50% of respondents expressed that cyber-learning can help improve the student's IP. While respondents from other faculties most claimed not.
- Item Question 24: Only respondents from students of FH, FTI, FIKOM more than 50% of respondents expressed that cyber pleased with the class so far. While more students from other faculties respondents who expressed dislike.

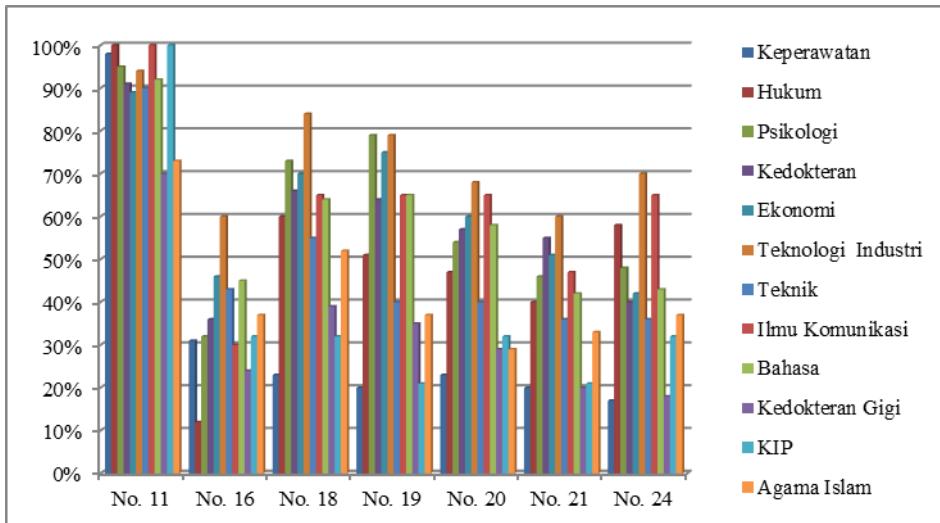


Fig. 11. Graph Respondents answering "yes" to the benefits of e-learning component

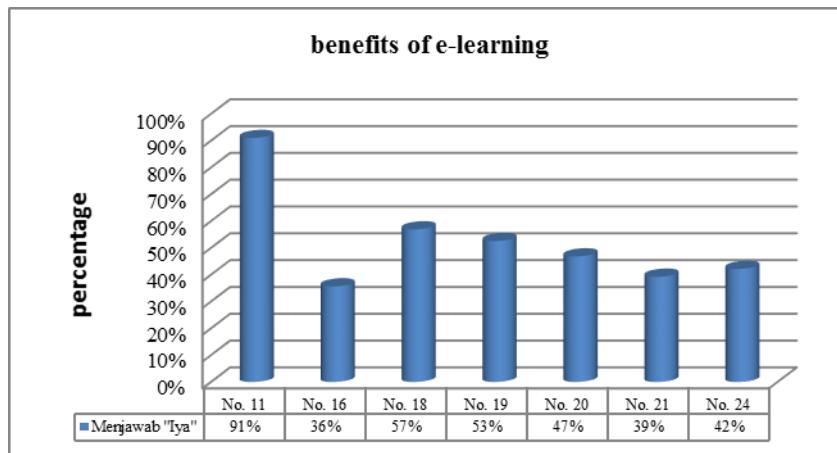


Fig. 12. Average percentage of respondents answering "yes" to the benefits of e-learning component

Overall it can be concluded that the respondents agreed that if a class of students learning cyber useful to support the learning process that is in UNISSULA. The benefits that have been obtained are not yet optimal. It is related to other factors, namely: infrastructure factors, material content, which is not available in adequate portions and cyber perpetrators have not been able to proceed optimally

#### 4. Conclusion

This paper shows that students in UNISSULA expressed they are accustomed to using the internet and have been familiar with cyber learning. Almost all respondents agreed that if a class of students learning cyber useful in supporting the process of learning in UNISSULA. However, the benefits of which have not yet obtained the optimal and has no effect on the improvement of student achievement.

The needs of students to physical facilities (computers and networks) in college is very high. There are some disadvantages that need to be improved such as the number of computers in the respective faculty, the quality and quantity of Wi-Fi networks as a means of internet access. Overall the system components and applications of e-learning is in UNISSULA expressed by the majority of respondents have a good student and was able to support the implementation of the course with a model of e-learning.

Content material affect student interest in cyber classes, if the information given in class cyber constantly updated, more communicative and interactive course, students will be interested in attending this class Actor factors indicate that the lecturers be a factor that affects the activity of cyber classes. Because lecturer is able to be a motivator for students to follow the cyber learning class

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## Learning Organization using Conversational Social Network for Social Customer Relationship Management Effort

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### Abstract

The challenge of each organisation is how they adapt to the shift of more complex technology such as mobile, big data, interconnected world and Internet of things. In order to achieve their objective, they must understand how to take advantage of interconnected individual inside and outside the organisation. Learning organisation continues to transform by listening and maintain connection with their counterparts. Customer relationship management is an important source for business organisations to grow and to assure their future. The complex social network, where interconnected peoples get information and get influenced very quickly, certainly a big challenge for business organisations. The combination of these complex technologies provides intriguing insight such as the capabilities to listen what the markets want, to understand their market competition, and to understand their market segmentation. In this paper, as a part of organisation transformation, we show how a business organisation mine online conversational in twitter related to their brand issue and analyse them in the context of customer relationship management to extract several insight regarding their market.

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**Keywords:** social network analysis; customer relationship management; complex networks; learning organization; brand awareness

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### 1. Introduction

In every organization, there are challenges on how they adapt to their environment in order to sustain their survival or to increase their influence. Continuously transformed organizations are desirable, but yet it is a difficult and complex process to achieve as an organization becomes larger. One of the examples is organization technology adoption, the famous Bell's technology adoption lifecycle describe most of individuals will be conservative to new technology. This fact contradicts to the urgently needed rapid organisational transformations in order to adapt and to compete. Learning organization proposed a framework on how an organization think and act in more complex and interconnected way [1]. This framework provides opportunity on how an organization transform in smart way.

The arrival of social media provides a conversation platform that stimulates the generation of data with characteristics such as large volume, fast streaming, real-time and rich variety. These characteristics lead to the term of Big Data. Big Data can help organization to have thorough knowledge by listening to the crowd of social

media and Internet users [2]. Knowledge management is enriched by feeds of these kinds of data [3][4]. Having advanced knowledge will certainly help to speed up organizations transformation to be more adaptive to their environment. Customer relationship management will also improve significantly, because the decision maker have enough knowledge to act to customer needs dynamically and even personally.

Business organization important tasks are to listen and to know what market wants and what their current competitions are. The large majority of data collection effort is using offline approach directly from population using methods such as questionnaire, interview, snowball sampling, contact tracing, random walk and direct informations. These methods are practically very good if we deal with small-medium number of data. In the case of larger crowd such as conversations in social media those approaches are very expensive, time consuming process and having the accuracy issue. These shortcomings are typical to offline data collection approach, where they get complicated when population is getting bigger.

The objective of this paper is to show how we can use social network based on online conversation to understand the dynamics of the network/market such as the influential actor in the network, market segmentation, how information flow in the network, and some others. These informations are important for business organisations to react agile to the dynamics of the market. We conduct the experiment using social network conversation in social media Twitter. Those conversations are modeled as social network models based on graph theory. Graph theory provides some properties such as density, diameter, trees, connectivity, shortest-path, node degree and some others [5]. Those properties can be expanded to measure network topology, which will be explained in next chapter.

## 2. Social Networks Models for Complex Relationship

To understand pattern and behavior of social networking, they are modeled based on graph theory. *Graph theory* is a branch of mathematics combinatorics where we represent entities as vertices and relationship among the entities as edges [6]. Once we have network, which consists of vertices and edges, we will have the properties such as the density of global network or partial network, network diameter, the giant components, clustering coefficient, number of communities and other useful information. Those properties are important as metrics and quantitative measures of the social network. Complex relationship is based on *Complex Network* [7], which defined as network with non-trivial topological features that do not occur in simple network, but often occur in real-world network. Social network is one example of complex networks. Complex relationship describe real-world social relationship, which rarely simple and straightforward to predict, involving human emotion and the influenced by human close-ties.

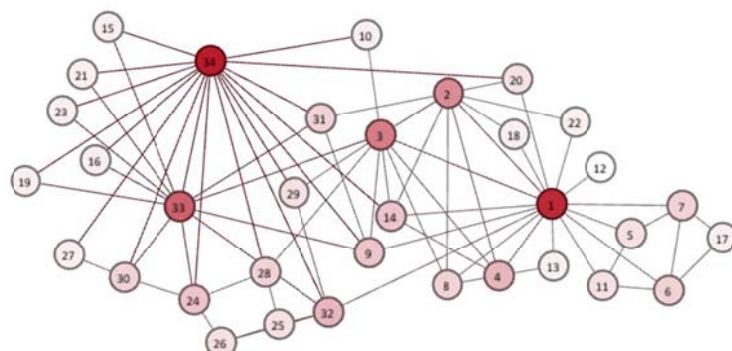


figure 1. Network model of interaction between employees in knowledge sharing context

The basic of social network analysis describe as the case study from knowledge transfer inside an organization of 34 employees regarding IT subject in figure 1 [8]. The vertices represent individual and the edges represent interaction, in this case, it is the transfer knowledge between individual. The redder the colour signifies the more interaction an individual has. From this knowledge network we found key relationship such as [8]:

- a. It is very important to know what someone knows; this is related to the ability to analyze knowledge and

- skills of organization members and also evaluate the overall cohesion of the network.
- b. We can gain fast access to certain people in the network; this is related to the ability to identify the most central/influential members of the organization.
  - c. We can create workable knowledge through cognitive engagement; this is related to assess those who are not well connected in the network, these people are probably representing the underutilized assets
  - d. There are learning processes in trust relationship; this is related to analyzing the network by highlighting ties between people who we will trust in knowledge sharing information.

From the case study above we learn that we can better understand the dynamics of network formation and hopefully be able to intervene at the times of knowledge creation and sharing. The four keys relationship can be viewed separately as different aspect of knowledge management inside organizational network and also can be viewed accumulatively. In short, we have the answer of the question on who should we turn to ask for knowledge or information among our co-worker regarding IT subject. From the figure 1, we see that employee number 1, 33 and 34 are the most connected peoples, which means that they are the most likely peoples turn for advice. We also found a subgroup contains of six employees on the right side of the network, this subgroup will disconnect from the network if employee number 1 is not present to the network. The existence of this subgroup signifies inefficiency in knowledge utilization where member of the subgroup are not maximizing expertise utilization from the network. The strategy of strengthening out ties between individuals is important solution to broader the information access to the rest of the network.

The study of complex social relationship described above is called *Social Network Analysis* (SNA). SNA provides network quantification based on graph theory. Some often-used metrics in SNA are centrality, community detection, homophily, reciprocity, structural holes, bridge, overlapping communities, component, and connectivity [6] [9] [10]. The metrics are important indications on how good or bad our network is and it can be used to as comparison tools between several different social networks. From the description above, it is clear that our research depends on network formation or topology and it does not depend on the content of communication. The workaround strategy for this approach is by defining context of conversation in the first place and then analyzes network topology formed by specific context.

### **3. Customer Relationship Management**

In General, *Customer Relationship Management* (CRM) is a strategy to oversee the customer activities [11]. It has been the strategic approach that most companies had taken in trying to figure out how to supervise their customer behavior. The methodology and technology used in CRM are destined to increase customer repeat purchase. Gathering data about the customer and tracking all customer activities were the way that CRM was used to find out individual customer's thinking. The positive customer experiences are mostly based on operational response. The feedbacks from customer are processed into CRM system to create better customer strategy. The objectives of CRM are to maximize customer value, to increase company profitability and shareholder value [12]. Traditionally, there are three main parts of CRM: Operational CRM for customer automation process, Collaborative CRM for providing customer communication channels, Analytical CRM for producing customer behavior information based on data mining algorithm and process. In SCRM, those functions are taking advantage of communities in social network and become social sales and social marketing. The difference between the two approaches is shown at figure 2.

The exponential growth of social media / Web 2.0 and the shift of social communications to more on customer controls are leading to the birth of new strategy called *Social Customer Relationship Management* (SCRM) [13]. SCRM designed to engage the customer in a collaborative conversation in order to provide mutually beneficial value in trusted and transparent business environment. It is the company response to the customer's ownership of the conversation. One of SCRM strategies that we propose in this paper employs *Social Computing* approaches [14], which capture online conversation to understand users actions, user preferences, users behaviors and also the overall implications for the network. By using SCRM, the conventional CRM have developed broader than just a media to retain current customer. The presence in social network services has positive recognition from potential customers. One of the advantages of this system is considered important for brand awareness effort.

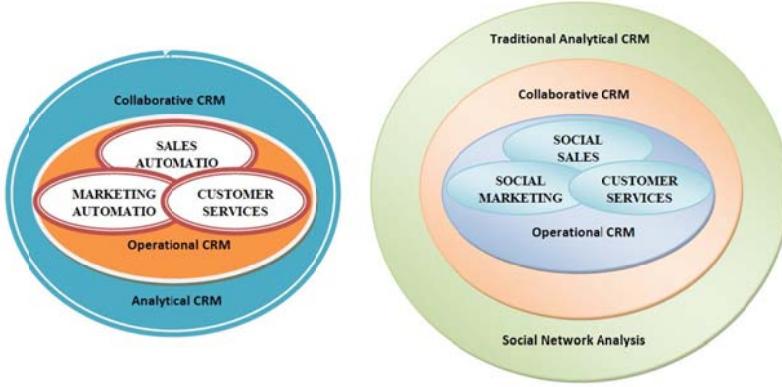


figure 2. The difference approach between CRM (left) and SCRM (right) [11]

The SNA and *User Generated Content* (UGC) together with data and user profiles are four factors that need to be captured to help gaining access to customer insight. SCRM tools provide the means to capture data, the profiles, and to create the experience maps which in turn help develop the real insight into customers that provide what is a genuinely personalized and delineable experience for individual customers. Those actions were not supported by traditional CRM. Overall, the comparative features or functions between CRM and SCRM method shown in table 1. [11]

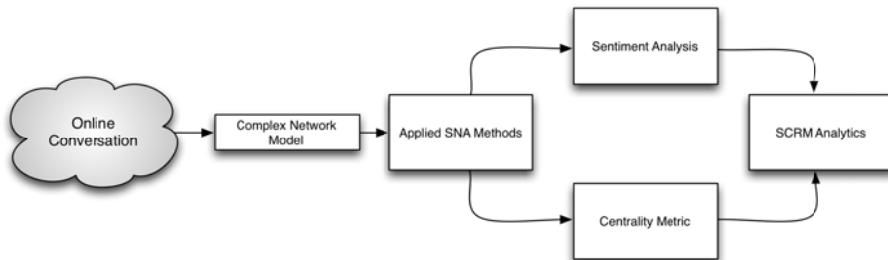
Table 1 the comparative features or functions between CRM and SCRM method [11]

CRM	SCRM
Definition: CRM is a philosophy and a business strategy, supported by a system and a technology, designed to improve human interactions in a business environment.	Definition: Social CRM is a philosophy and a business strategy, supported by a system and a technology, designed to engage the customer in a collaborative interaction that provides mutually beneficial value in a trusted & transparent business environment.
Tactical and operational: Customer strategy is part of corporate strategy.	Strategic: Customer strategy is corporate strategy.
Relationship between the company and the customer was seen as enterprise managing customer - parent to child to a large extent.	Relationship between the company and the customer are seen as a collaborative effort. And yet, the company must still be an enterprise in all other aspects.
Focus on company not on customer relationship	Focus on all iterations of the relationships (among company, business partners, customers) and specifically focus on identifying, engaging and enabling the "influential" nodes
The company seeks to lead and shape customer opinions about products, services, and the company- customer relationship.	The customer is seen as a partner from the beginning in the development and improvement of products, services, and the company-customer relationship.
Business focus on products and services that satisfy customers	Business focus on environments & experiences that engage customer.
Customer facing features: sales, marketing and support.	Customer facing both features and the people who is in charge of developing and delivering those features.
Marketing focused on processes that sent improved, targeted, highly specific corporate messages to customer.	Marketing focused on building relationship with customer - engaging customer in activity and discussion, observing and re-directing conversations and activities among customers.

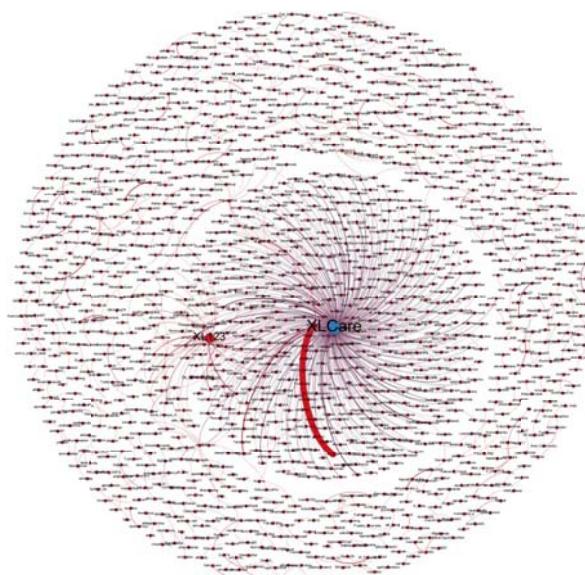
Intellectual property protected with all legal might available.	Intellectual property created and owned together with the customer, partner, supplier, and problem solver.
Insights and effectiveness were optimally achieved by the single view of the customer (data) across all channels by those who needed to know. Based on "complete" customer record and data integration.	Insights are a considerably more dynamic issue and are based on customer data, customer personal profiles on the web and the social characteristics associated with them, customer participation in the activity acquisition of those insights.
Resided in a customer-focused business ecosystem.	Resides in a customer ecosystem
Tools are associated with automating Functions.	Integrates social media tools such as blogs, wikis, podcasts, social networking tools, content sharing tools, user communities into apps/services

#### 4. Experiment and Analysis

To show SCRM implementation, we conduct an experiment using conversation data from social media Twitter. We crawl the conversation through Twitter Application Programming Interface (API). This API offers simpler way of gathering data by providing uniform format. Twitter API is much more efficient than using technique such as web mining, which proved difficult regarding variety formats and data types available on the web. Another reason is the practicality of Twitter as open platform services and one of the most active social network services for online conversation in Indonesia. Our research workflow is shown at figure 3.



*figure 3. The research workflow*



*figure 4. The complex social network conversation model*

For the experimentation, we choose one of big telecommunication company in Indonesia, which is PT. XL Axiata Tbk. Based on our hypotheses and observations, Indonesian telecommunication subscribers has tendency to post their opinion or complain about unsatisfactory service they have received on social media, including Twitter. The Twitter data crawling is set for period July 1-3th, 2013 for all tweets that mention keyword and hashtag “XL”, “XLCare”, “XL123”. We get undirected network with 1413 peoples involved in the conversation and 1026 conversation between those peoples. Thus, we get 1413 nodes and 1026 edges. The result of the whole network graph model is in figure 4.

We apply centrality metrics to find the most influential actors in the network. In this paper, we focus on three centralities metric: degree, betweenness and closeness. The degree centrality (DC) is to measure total number of connections or the most connected actor in the network. Once we know DC value, we can identify which actors in the conversation network that actively connected to many other actors, probably they are the one who respond to many questions from the crowd. The betweenness centrality (BC) is to measure the importance of actor location in the network. BC value will show which actors are the hub or bridge between different part of communities / group in the network. The hub actors is important to fill any structural hole in the network, their presence are strengthening the network structure. The closeness centrality (CC) is to measure how fast an actor reaches all other actors in the whole network. By knowing the CC value, we can assign set of actors who will spread the information fastest to the whole network. Our centrality metric measurement rank and value is shown at table 2.

*Table. 2. Degree centrality, betweenness centrality and closeness centrality metric value and rank*

Ranks	Node	Degree Centrality	Node	Betweenness Centrality	Node	Closeness Centrality
1	XLCare	437	XLCare	0.130	XLCare	0.768
2	XL123	59	XL123	0.020	XLSoMeSumatra	0.750
3	XLandMe	16	XLandMe	0.006	parkiyeon	0.750
4	PejuangKuis	13	PejuangKuis	0.003	xxopeter	0.750
5	Viccent22	6	AfinaTsabbita	0.003	MomeafmPLM	0.750
6	RAFLATAHUGS	5	Viccent22	0.003	azizanangM	0.667
7	TanteYulia	4	Serbakuis	0.002	yonkya	0.667
8	Adhantriio	4	adhitstubz	0.002	BeautyCare19	0.667
9	Widideon	3	adiUFO	0.002	bandreanto	0.667
10	Zulfincitra	3	anisha_ir	0.002	Expreso	0.667

From the table 2., we see that @XLCare is consistently at the top of all centrality measurement. Since this account is the official account of the company, the result is not surprising us. In order to better understand the community / social / crowd contribution, we remove the official account from the end result. We found @PejuangKuis is non-official account, while its important actor, it does not sufficiently generate and involve in the conversation. This is a warning for the company that their network does not form closed- ties, the role of crowd are minimal, and they rely heavily on official account. In the future, they need to implement a strategy to maximize the role of the crowd in support brand or customer relationship management activity.

When we look into content of the conversation, we got 745 conversation (52.72%) contains of negative sentiment, which mainly bad opinion and complaints to customer services. We got only 102 conversations (7.22%) positive sentiment. When we look at this composition, the tendency in today online social media people speak up when they have bad experience or they are actually having trouble with the services. Our ability to implement effective and efficient SCRM strategy is important in controlling the content or the structure of the network. Using the knowledge of SNA and all the metrics available will certainly help us with the effort to form the network as we intend to.

## 5. Conclusion

This paper has shown a workflow of a SCRM effort through Twitter. The SCRM effort can be modeled using complex social network. To guarantee the effectiveness of SCRM effort we need to implement a strategy with objective to increase closed-ties between actors in network, which lead to self-healing management network. The key of our preferred network found on positive sentiment. From our observations, the strategies such as thematic effort, contextual storytelling, and appreciation to customer can lead to positive vibes in the network. For the future research, there is a need to find the academic connection between network with positive sentiment with willingness of the crowd to help the communities or willingness to defend the brand / organization.

This study can be enhancing, by extending the length of observations to get larger data set / conversation for more accurate result. Another path that might be interesting to follow is to combine several social network services crawling data for more complete insight about what actually happen in the market. The metric combinations will also certainly useful to identify individual behavior in the network.

SCRM implementation is one way to apply smart learning in business organization facing the more interconnected world. Data and tools are widely available, and it is up to the top management whether they are going to adapt the new way to get closer to the customer. Most of organizations will have trouble to embrace this approach because of the lack of sufficient people who understand working with stream and large quantity of data.

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## Lecturers Appreciation Language Through Social Media

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### Abstract

This paper discussed about using the idea of social media to convey lecturer appreciation language in order to fulfill Business Administration Program of Study (Adbis) purposes. Adbis lecturers motivational hygiene factor problem caused job dissatisfaction specifically in interpersonal relationship aspect. The use of appreciation language affect lecturers interpersonal relationship also job satisfaction that ultimately affects to the fulfillment of Adbis purposes. Social media as a form of internet-based communication is expected to be used to convey appreciation language among Adbis lecturers. The method used in this paper is the use of a secondary analysis of data. This paper provides a possible view of the role of social media for organizational effectiveness. Further research can be done more detail further on finding the empirical connection between appreciation language, interpersonal relationship, motivation, job satisfaction and organizational purpose fulfillment; knowing primary appreciation language for each lecturer both personally and as a whole; finding the type of social media most suited to convey the appreciation language; finding the type of social media that is most convenient and commonly used by Adbis lecturers and the way to convey the appreciation language between lecturers through the suitable social media.

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**Keywords:** Organizational Effectiveness; Appreciation Languange; Social Media

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### 1. Introduction

Organization may be defined as a group of individuals, large or small, that is cooperating under the direction of executive leadership in accomplishment of certain common object [20]. Another definition of organization is social unity (entity) that consciously coordinated, with a limitation that can be identified, which works on the basis of continuously relative to fulfill a common goal and or group of goals [31] [35]. Goal fulfillment organization indicates the extent to which an organization realize its goals, it is the effectiveness of the organization [12] [31] [35].

Program of study (prodi) Business Administration (Adbis) is part of Communication and Business Faculty. Communication and Business Faculty is part of the Telkom University (Tel-U). Adbis has purpose through the combined of

vision, goals and mission becoming be top of mind prodi in Indonesia (2017), and it is known in Asia (in 2021) that produces an output of business administration undergraduate through a transparent and accountable world class academic education management. There is still time range to be able to fulfill the Adbis full purpose, particularly in terms of fulfilling the vision. Vision can be fulfilled through the implementation of the mission. As a result of the implementation of the mission will result in the fulfillment of objectives and goals, the fulfillment of objectives and goals to fulfill the vision. So the purpose Adbis fulfilled.

Using Indonesian Education Minister Prof. Muhammad Nuh statement, the key to success of education is teachers or lecturers [39]. Lecturer is an important element in the higher education institution of to produce graduates who play a direct role as one of the important goals of higher education institutions.

In the previous research that aimed to know how well the work motivation of Adbis lecturers found problems in interpersonal relationships between Adbis lecturers [30]. The research was aimed to determine how well Adbis lecturer work motivation. Motivation is a set of energetic forces that originate to give behavior purpose and direction [24]. Two dimensional Herzberg's work motivation variable that consists of 10 indicators, the interpersonal relationship assessment has categorized as dissatisfied. Therefore it is necessary efforts to improve interpersonal relationships between Adbis lecturers as part of efforts in order to fulfill Adbis purposes.

## 2. Literature Review

### 2.1. Motivation

If it is associated with the effectiveness of the organization, then there is a relationship between motivation and organizational effectiveness. There are positive relationship between employee motivation and organizational effectiveness [24] [27].

This paper discussed the motivation is based on research conducted by Herzberg. What is interesting from motivation studied by Herzberg is because the focus of motivation in Herzberg theory is job satisfaction. **Job satisfaction** as the extent to which one's job is perceived as fulfilling important values [24]. Job satisfaction is one of the main variables for the level of employee **commitment** to work [40]. Greater job satisfaction can translate into higher **productivity** levels [25]. There is a positive relationship between employee satisfaction and productivity [33]. Motivation and productivity is part of the criteria of organizational effectiveness [4].

There are two main factors of motivation from Herzberg theory, namely factor motivators and hygiene factors. Motivators factor is factors which consist of things that can allow workers to achieve the very high level of job satisfaction (satisfied / highly motivated / positive). Hygiene factor is a factor which consists of things that can allow workers to achieve the very low level of job satisfaction (dissatisfied / lowest motivated / negative). Between motivators and hygiene factors, there is a limit which is a condition in which a worker does not feel job satisfaction (no satisfaction / zero / neutral).



Figure 1. Frederick Herzberg Motivation-Hygiene Theory (<http://kelas.wordpress.com/2008/10/18/organisasi-industri-6/>)

From the figure above shows the things of the hygiene factors that can cause a worker became dissatisfied. One of the hygiene factors, which becomes a problem in Adbis is interpersonal relationships. Be a problem because the assessment results of interpersonal relationships between Adbis lecturers in the dissatisfied category. Dissatisfied category of interpersonal relationship may cause Adbis lecturer become dissatisfied. Dissatisfied indicate that lecturers don't get involved in their job or put forth the extra effort to do a good job. It is expected that the entire parts in hygiene factor in a good category that allows Adbis lecturers prevented from dissatisfied. The satisfaction of hygiene needs can prevent dissatisfaction and poor performance, but only the satisfaction of the motivation factors will bring the type of productivity improvement sought by companies [14]. Dissatisfied lecturers conditions also would hinder the fulfillment of Adbis purpose. Each lecturer individually should prevent him/her entering the dissatisfied category with, pay attention to interpersonal relationships. By preventing entry dissatisfied category will increase the chances of Adbis lecturer fulfilling satisfaction. Thus to prevent entry dissatisfied category is the first step to fulfill the purpose of Adbis. Due to fulfill the purpose of Adbis each lecturer should be satisfied, so to be satisfied lecturer are not categorized as dissatisfied. So from the point of view of hygiene factors (which has the potential to lead to dissatisfied that is interpersonal relationship) should be minimized.

## 2.2. Interpersonal Relationship

Overall interpersonal relationships take place in a great variety of contexts, such as family, friends, marriage acquaintances, work, and neighborhoods [23]. Based on Herzberg's theory, interpersonal relationship is the interaction between individual and superiors, peers and subordinates, these relations can include either working relationships or purely social relationships on the job [15]. Positive (good) interpersonal relationship, such as friendships at work can **improve job satisfaction**, job commitment, engagement and perceived organizational support [6][11][17][29][33][36][38][41]. Organizational performance is influenced by the condition of how **interpersonal relationship** plays a role in managing emotional regulation, communication, and **appreciation** of the work environment [37].

To fulfill Adbis purpose be done jointly by the lecturers as a team. Team is an energetic group of people who are committed to achieving common objectives, who work well together and enjoy doing so, and who produce high quality results" [9]. "Healthy team relationships are characteristic of unusually successful teams"[21]. Cohesion is the degree of attraction members feel toward one another and the team; "it is a feeling of deep loyalty, of esprit de corps, the degree to

which each individual has made the team's goal his or her own, a sense of belonging, and a feeling of morale"[1]. Figure 2 below show in order to build team cohesion will be presented, including: **appreciation**, incentive, relevance, performance measurement and **interpersonal relationships**.

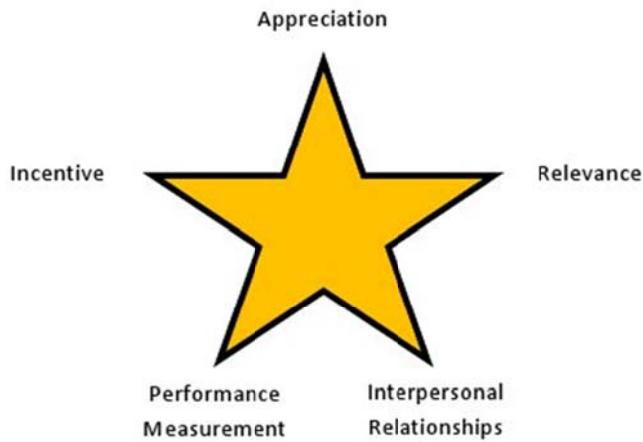


Figure 2. Team Cohesiveness

([http://en.wikibooks.org/wiki/Managing\\_Groups\\_and\\_Teams/Which\\_attributes\\_are\\_fundamental\\_to\\_team\\_cohesion%3F](http://en.wikibooks.org/wiki/Managing_Groups_and_Teams/Which_attributes_are_fundamental_to_team_cohesion%3F))

### 2.3. Appreciation Language

The greatest need of a human being is psychological sustainability, to be understood, to be recognized, to be approved, to be appreciated [7]. Appreciation is an important part of the motivation, the things that can be applied to, among others, held motivate social interaction and teamwork; giving the challenge; and organized **employee appreciation** programs [19]. A major factor in job satisfaction is whether people feel appreciated for the work they do or do not. The one that causes a person to leave their work because is not appreciated [5]. Small percentage of employees leave a job in order to get higher wages [3]. Submission of appreciation in the workplace has a positive impact [21].

The advantage of using appreciation language [5]:

- Reduction in employee turnover;
- The level of attendance and **productivity** increases;
- Greater consumer satisfaction;
- **More positive relationships between superiors, subordinates and co-workers**; this is proof that the language contribute to the appreciation of interpersonal relationship.
- Overall more positive corporate culture and work environment.

There are five appreciation language [5]:

- Words of Affirmation

Words, both oral and written, can be used to affirm and encourage those around us. Some people prefer personal one-on-one communication, while others value being praised in front of others (but it is important to know that relatively few people like to receive public affirmation in front of a large group).

- Quality Time

Personal, focused time and attention with their supervisor is highly affirming for some. But others enjoy different types of time — “hanging out” with their coworkers, working together as a team on a project, or just having someone take the time to listen to them. And the type of time desired can differ significantly depending on whether it is with colleagues or with their supervisor.

- **Act of Service**

Assisting in getting a task done can be extremely encouraging to a colleague. Helping a teammate “dig out” from being behind, working collaboratively on a project that would be difficult to do alone, or just working alongside with them on a task, are all ways to demonstrate appreciation for their efforts.

- **Tangible Gift**

The key to an effective gift in the workplace is the “thought,” not the amount of money spent. Taking time to notice what your colleagues enjoy (chocolate, coffee, cashews), observing their hobbies and interests (sports, books, crafts) and buying them a small related gift shows that you are getting to know them as a person and understand what is important to them.

- **Appropriate Physical Touch**

While we acknowledge that physical touch is less important in work-based relationships, and the potential for abuse exists, we still find that appropriate physical touch is meaningful. Usually, it occurs spontaneously and in the context of celebration — a “high five,” fist bump, slap on the back, or congratulatory handshake. To not touch one another at all often leads to a cold, impersonal environment.

#### **2.4. Social Media**

Internet has emerged as the outstanding innovation in the field of communication in the history of humankind [2]. Internet is an essential communication medium in professional as well as personal life [10]. The internet offers a wide variety of communication tools like search engines, web pages, e-mails, e-books, e-journals, e-newspapers, internet banking, internet telephony, conferencing, multi-media sharing, online newsrooms, gaming, shopping, blogging, and importantly, social networking [25]. One of the important role the Internet is representative of the physical with the virtual in terms of identities, attributes and personalities; minimize the limitations of space and time to participate; interacting; communicate; share, exchange information.

Social media depend on mobile and web-based technologies to create highly interactive platforms through which individuals and communities share, co-create, discuss, and modify user-generated content. Social media introduce substantial and pervasive changes to communication between organizations, communities, and individuals [13]. The picture below shows the functions of social media.



<sup>1</sup> Social analytics is the practice of measuring and analyzing interactions across social technology platforms to inform decisions.

SOURCE: McKinsey Global Institute analysis

Figure 3. Social technologies include a broad range of applications that can be used both by consumers and enterprises (<http://orgeffectiveness.ca/post/30598290018/1-3-t-reasons-social-media-affects-employee>)

In the other term social media is a group of Internet-based applications that build on the ideological and technological foundations of [Web 2.0](#), and that allow the creation and exchange of [user-generated content](#) [18]. Andreas Kaplan, devide seven different types of social media: *Collaborative projects* (for example, [Wikipedia](#)); *Blogs and microblogs* (for example, [Twitter](#)); *Social news, networking sites* (for example, [Digg](#) and [Leakernet](#)); *Content communities* (for example, [YouTube](#) and [DailyMotion](#)); *Social networking sites* (for example, [Facebook](#)); *Virtual game-worlds* (e.g., [World of Warcraft](#)); *Virtual social worlds* (e.g. [Second Life](#)).

## Social Media Landscape

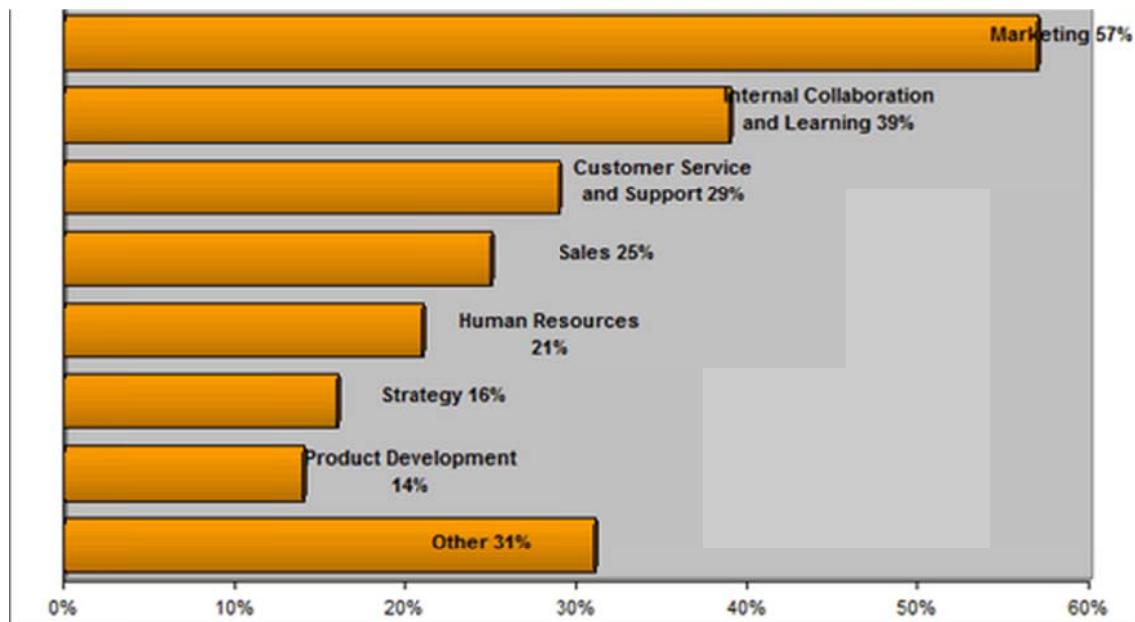


*Figure 4. Social Media Landscape (<http://www.fredcavazza.net/2008/06/09/social-media-landscape/>)*



*Figure 5. Social Media Landscape Categorizing The social Media Landscape*  
[https://www.deloitte.com/assets/Dcom-Canada/Local%20Assets/Documents/ERS/ca\\_en\\_ers\\_enterprise\\_20\\_050611.pdf](https://www.deloitte.com/assets/Dcom-Canada/Local%20Assets/Documents/ERS/ca_en_ers_enterprise_20_050611.pdf))

Most organization look social media to increase productivity through communication, foster collaboration and enhance stakeholder relationships [8]. Social media is very possible to use linked with interpersonal relationships. Using social media helps to get people working together, and by doing this, they can often develop more and better relationships [17]. Gambar dibawah ini menunjukkan bahwa social media dapat digunakan untuk internal collaboration.



Source: Mzinga and Babson Executive Education, September 2009

Note: Includes blogs, chat, discussion boards, microblogs, podcasts, ratings, social networks, video-sharing, wikis, etc



Figure 6. Business Area for which professional worldwide use social media august 2009, (% respondents)  
(<http://techtoexecs.com/>)

### 3. The Conclusion

The possibility the use of social media to convey appreciation language among Adbis lecturers in order to make a good interpersonal relationship. Emergence of relationships between variables, that is: Appreciation Language → Interpersonal Relationship → Motivation → Satisfaction → Organizational Effectiveness.

There are some limitations to the use of social media to convey appreciation language such as for tangible gift and appropriate physical touch. this is because due to the involvement of social media to bring the physical human presence for direct contact. So the five types of the appreciation of language that may be delivered through social media are words of affirmation, quality time and act of services.

The opportunity of further research can be done more detail further on:

- A deeper research about the motivation of lecturers Prodi Adbis use various versions of the theories of motivation.
- A deeper research on organizational effectiveness criteria for Prodi Adbis.
- Finding the contextual empirical connection with possibility framework:  
Appreciation Language → Interpersonal Relationship → Motivation → Satisfaction → Organizational Effectiveness
- Related with interpersonal relationships, open opportunities to investigate more deeply about team, leadership and stewardship in Prodi Adbis
- Knowing primary appreciation language for lecturers (both general and personally).
- Closer study of the relationship words of affirmation and or quality time and or act of services to organizational effectiveness.
- Finding the type of social media most suited to convey the words of affirmation quality time and act of services as appreciation language.

- Finding the type of social media that is most convenient and commonly used by Adbis lecturers.
- The detail way to convey the words of affirmation quality time and act of services as appreciation language through the suitable social media.

So from all five things above are expected to know the accuracy of the type of social media that is used to convey the appropriate appreciation language for Adbis's lecturers.

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## MOOCs as a Trusted Recruiting Tool for Corporate Learning

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### Abstract

Massive Open On-line Courses or MOOCs is characterised by its on-line feature which can be accessed freely and massively. It adopts an important principle called flipped classroom. Although new, MOOCs has become prominent now due to wide acceptance by well-known universities. Issues that lingers with regards to MOOCs are (1) the methods or strategies that best work for different platform such as corporate universities, (2) overcoming the skeptics on MOOCs, (3) providing acceptable quality of the courses and the user interface offered as MOOCs, and (4) the lacking of adoptable recruiting model. This paper aims to address those issues by proposing a recruiting model for corporate learning where MOOCs serves as a dominant tool. Strategies implemented by giant MOOCs providers such as Coursera, Udemy and edX is being reviewed with supportive data and evidence. These data, although secondary, are significant to show the growth of MOOCs adoption throughout the world, regardless of the skeptics. A sample case of the model being adopted in Malaysia's institution of higher learning (IHL) is presented to prove that MOOCs really works, at least in the *malaysiamoocs* environment.

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*Keywords:* Massive open online courses (MOOCs), flipped classroom, corporate learning, precision-build courseware.

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### 1. Introduction – MOOCs?

What is thing called MOOCs? MOOCs –massive open on-line courses-- is a concept gaining popularity in the corporate sector, companies as well as learning organisations. They are starting to employ it for the purpose of training, recruiting, and even marketing. It entered the learning sphere in 2008 and become prominent in 2012 due to the adoption of this teaching-learning (T&L) model by Stanford University.

An important principle in MOOC is flipped classroom, where learning happens not by giving lectures, but by giving students/staff access to the course materials for them to discuss and debate with the course mates and well as the professor teaching the course. This would mean, the lecture hall is no longer the centre of T&L, it is now just a node in the social interaction network.

#### 1.1. The seven characteristics of MOOCs

MOOCs is characterised by (1) on-line courses, (2) can be accessed free of charge, (3) contains short video lectures combined with quizzes, (4) each course is complete from topic 1 to n, (5) it is a repository of all sorts of courses, sometimes with exams, peer and self-assessment, (6) online forum for peer support and other discussion, and (7) can be accessed ‘massively’.

MOOCs is considered ‘massive’ due to its seventh characteristic, where a huge number of learners can enroll in a course. The number of students for a course, sometimes, can reach tens of thousands.

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## 1.2. MOOCs – a billion dollars industry in corporate learning

As an entity designed to support its parent organisation, a corporate university (CU) is indeed in a dire need for a tool that can foster organisational learning, specifically for training and supporting change in an organisation. As CU is characterised by a return on their investment (unlike traditional government universities), most CUs adopt MOOCs as the tool in its ‘blended’ T&L because MOOCs can provide evidence that each and every training is delivering results, specifically in applying the knowledge gained to the work environment.

Mahidhar [1] and Bersin [2] reported that MOOCs is playing bigger role now in corporate learning (USD70 billion market) and recruiting (USD70 billion market) by being able to overcome the skill shortages in companies and to gain deeper insights about customers. Both corporate learning and recruiting are USD140 billion market worth of industry. Another important segment, i.e. marketing via MOOCs is another USD50 billion market.

## 2. Strategising MOOCs for corporate learning

In the beginning, MOOCs are targeting at higher education institutions, but now more corporations are starting to use MOOCs. The corporate sectors find MOOCs useful for the purpose of lowering the cost for employee training, building talent pipelines, identifying candidates for certain jobs and skills, and winning the hearts of more customers.

The giant MOOCs providers, specifically Coursera, Udemy, EdX (see Fig.1), and Udacity, have taken substantial actions in supporting the needs and demands by the corporate sectors. Among others, they established alliances with corporate members to create courses on technology skills desired by employers, they develop an offering to match students seeking jobs with employers [3], and they licensed their academic courses to corporations.

The screenshot shows the homepage of edX.org. At the top, there is a navigation bar with links for 'HOW IT WORKS', 'COURSES', 'SCHOOLS & PARTNERS', 'REGISTER NOW', and 'log in'. Below the navigation bar, there is a banner with the text 'TAKE ONLINE COURSES from the world's best colleges and universities' and an image of a person's face next to binary code and a wind turbine. Below the banner, there is a search bar with dropdown menus for 'all', 'current', 'new', 'past', 'Computer Science', 'all schools', and a 'find' button. The main content area is titled 'Courses: Showing 1 - 15 of 61'. It lists three courses: 'CS50x: Introduction to Computer Science' (taught by HarvardX, starts anytime, self-paced, instructors David J. Malan and HarvardX), 'DemoX.1: DemoX' (taught by edX, starts anytime, self-paced, instructors Brown, Donald, Fisch, etc., edX), and '11.132x: Design and Development of Educational Technology' (taught by MITx, starts 8 Oct 2014, instructors Eric Klopfer and MITx). Each course listing includes a 'learn more' button.

Fig. 1. An example of the edX MOOCs ([www.edx.org](https://www.edx.org/course-list/allschools/computer-science/allcourses)).

With various strategies, MOOCs is seen to expand the corporate training options as seen in the alliance of *Yahoo* and *Coursera*, as well as *Teneris* and *edX* [4],[5]. Table 1 picks 3 different examples of strategies employed by *Coursera*, *edX* and *Udemy* with their respective alliances.

Table 1. Strategies applied by the leading MOOCs providers

MOOCs provider	Corporation in alliances	Strategy
Yahoo	Coursera	Reimbursed employees for the cost of verified course-completion certificates from Coursera
Udemy	1-800-Flowers	Created an online education portal on Udemy platform for its network of independent florists. The portal will offer a mix of general business courses and custom-developed courses on topics specific to the floral industry
edX	Tenaris (a global manufacturer of steel)	Licensed edX's software platform and course materials for Tenaris employee learning program

Adidas adopts a slightly different strategy by developing its own adidas Group Corporate University (aGCU) which serves as an incubator to enable its employees to achieve their personal best. Adidas is seen to act drastically by transforming the company into a learning organisation. They are working towards an environment in which all employees equally teach and learn, and acquire knowledge/skills in a variety of ways to best suit both personal and organisational needs.

### 3. Data and evidence on MOOCs as a trusted recruiting tool

Table 2 summarises five recent studies on MOOCs. The studies show evidence that there is a significant growth in MOOCs registration in the recent years. Institutions with online offerings remain as positive as ever about MOOCs, but there has been a retreat among leaders at institutions that do not have any online offerings.

Table 2. Recent studies on MOOCs

Study conducted by	Background	Results
Future Workplace [6]	completed by 195 corporate learning and HR professionals	70% - saw opportunities to integrate MOOCs into their own company's learning programs.
Cisco connected world technology report [6], [7]	Surveyed 1,388 Gen Y (born between 1977 - 1997) and 1,524 Gen X (born between 1964 - 1976) professionals and 827 Human Resource professionals.	91% is Gen Y (as opposed to 8% of Gen X ) needs changes and new expectation in workplace.  Gen Y believe that Internet is as important as air, water, food, and shelter. would accept a lower-paying job that had more flexibility with regard to device choice, social media access, and mobility than a higher-paying job with less flexibility.  (The result of the study has led to the establishment of MOOCs as an integrated solutions between Cisco and Vyopta—a company that provides supports for Video Customer Engagement)
International council for open and distance education [8]	Study the growth in online enrolments, in the USA:  Study on the proportion of academic leaders rating the learning outcomes in online education as the same or superior to learning outcomes in face-to-face education:	6.1% growth rate, i.e. more than 400,000 additional students taking at least one online course.  33% of higher education students take at least one course online  90% of academic leaders believe that it is very likely that a majority of all higher education students will be taking at least one online course in five years' time.  2003 – 57.2% 2012 – 77.5% 2013 – 74.1%

University of Pennsylvania [9], NewScientist, 2014	Study the demographics of 400,000+ MOOCs' registered students. (in courses offered by the university through Coursera).  Received nearly 35,000 responses.	Students who registered for MOOCs are educated, employed, and male (56%). 68% registered are from Brazil, Russia, India, China, and South Africa (BRICS countries), 62% - other developing countries.  In BRICS countries, 36% gap between male and female participation (male is far greater for MOOCs than in traditional education).  (The United States is one exception, where males and females participate in equal numbers in both)
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### 3.1. Skeptics on MOOCs

There is also an issue with regards to the doubts on the capability of MOOCs, that researchers found in their study. One of it is the study by Jaschnik [10] on Gallup surveys of college presidents. The study is also supported by Inside Higher Ed ([www.insidehighered.com](http://www.insidehighered.com)). Table 3 summarises the findings.

Table 3. The summary of Gallup survey

Study conducted by	Background	Results
Gallup survey of college presidents [10]	Surveyed 889 presidents	Ambivalence – mixed feeling.  Majority believe that MOOCs can ONLY Foster creative pedagogical strategies (43%) Increase collaboration among colleges (36%) Majority are skeptical that MOOCs can Improve the learning of all students (13%) Solving colleges' financial challenges (11%)

Only 13% of the presidents believe that MOOCs can improve the students' learning. In line with Gallup survey [10], another study [8] also found increasing skepticism about the future role of MOOCs. Major concern is related to students' learning and the credentials for MOOCs.

I may be bias but as a researcher who believe in a theory that there are many ways to reach a destination, I believe that MOOCs are merely a tool. As a tool, it needs to be used by someone who knows the power and capability of the tool. The potential benefit can only be realized by organisations that know how to use the tool and adapt their process to it.

One issue that is always considered as a drive for the education engine is money. The cost of attending colleges and universities is sometimes out of control. Thus MOOCs is one of the solutions. Students can attend great lectures from great universities like Harvard and MIT (or other top-ranked universities) for free. Thus, if students can get such a quality education (from a GOOD MOOCs, of course!) is it worth going into a debt (such as PTPTN in Malaysia) for a traditional brick and mortar universities, which are not even in the list of the world ranking? It is thus clear, if the choice is based on the economic factor, then MOOCs is a better choice. However, MOOCs is just a tool that can complement traditional education model. It is not a replacement like some people understands it. A study reveals that some faculty members thought MOOCs have the potential to put them out of job. The misunderstanding leads people to imagine that the universities/colleges will go bankrupt if everybody goes for MOOCs. Maybe it is one of the reasons why universities presidents are skeptical? Maybe they are not disinterested in the value of MOOCs? Let just leave this as another gap for further research. Worth mention although the results shows that they are skeptical, but it does not necessarily mean that they oppose MOOCs.

As a tool, MOOCs should not be confused with educational process. Some (it may include the presidents of companies) are yet to figure out how to use this powerful tool effectively. They may also downplay MOOCs because in order to have access it is compulsory for one to have a laptop (or any other devices/gadgets) and an X dollars a month Internet connection. But in today's reality, who does not have those?

### 3.2. The quality of MOOCs

MOOCs must be made elite and reputable. Since it is free, everybody will choose the best free MOOCs. High ranking and reputable universities should feel obliged to provide MOOCs. However the quality of the courses must be improved, specifically in Science, Technology, Engineering, and Mathematics (STEM) areas. It has to be rich, interactive, and provide user controls. The user interface, look and feel as well as the usability should be tested and experimented prior to the release of the course as a MOOC. Good MOOCs will solve many educational problems.

For MOOCs that is well-suited for corporate learning, other than the user interface for each and every course, they should also apply these defining features of MOOCs: 1) world-class course content in context; 2) flipped classroom course design; 3) provide college credits or certificate of completion as credentials; 4) build employer brand (similar to Khan Academy & Bank of America partnership which resulted BetterMoneyHabits.com); and 5) use data analytics to improve learning programs – because with MOOCs one can have a real-time analytics that reveal learners' progress and achievement and which format works best for the learners.

Table 4 shows some course credential keys (CCK) produced by a few MOOCs providers. The CCKs are not university credit, they are meant for providing the status of achievement with regards to courses taken online.

Table 4. The MOOCs CCK (Source: [http://www.openculture.com/free\\_certificate\\_courses](http://www.openculture.com/free_certificate_courses))

CCK	Meaning
CC	Certificate of completion
CA	Certificate of accomplishment
HCC	Honor code certificate
*VC	Verified certificate
*VCA	Verified certificate of accomplishment
SA	Statement of accomplishment
*SP	Statement of participation
CM	Certificate of mastery
NI	No information about certificate available
NC	No certificate

The \* symbolizes the course is free but the credentials cost some money.

Meister [11] suggested that, to gain greater traction in corporate learning MOOCs should be adapted to 1) workplace-type offerings (71%); 2) courses that are shorter in duration (69%); 3) leadership development content focus (57%); and 4) apps that go along with online courses (49%).

### 3.3. MOOCs offers a new recruiting model

The simplest MOOCs model is a video on a certain course, being posted in a blog in a forum, then we have one MOOC produced. But a slightly different model should be adopted for corporate training of a learning organisation.

The new recruiting model under MOOCs initiative specifically for corporate training can be shown in the context diagram as in Fig. 2. In specific, the components are 1) corporate learning with two entities namely corporate education and corporate training; 2) the corporate university as an entity under the parent organisation; 3) the host or the MOOCs provider; and 4) the learning content.

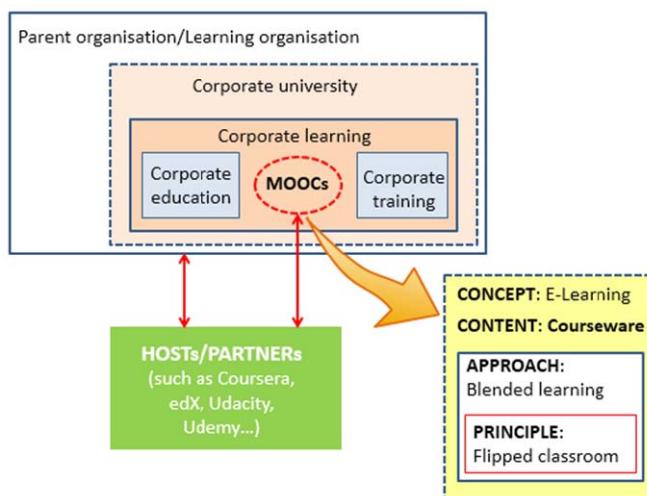


Fig. 2. MOOCs in the context of a learning organisation.

The learning content is MOOCs, which are precision-built courseware and the approach can be in the form of blended learning. The figure simplifies how MOOCs is situated in the context of corporate learning within a learning organisation.

MOOCs utilises the concept of e-learning, using the blended learning approach and most of the time adopting the flipped classroom principle.

An example of the implementation of the model can be seen in *Google* and *AT&T* (as parent organisations) which are currently working with *Udacity* (the host). Another examples are Facebook and Twitter which are working with *Coursera* [3]. French Ministry of higher education and consortium of Chinese universities are working with *edX* [12], [13]. The ultimate aim of the organisation-host partnership is to develop the said courseware to teach students and graduates the skill demanded by clients and build a pipeline of qualified talent. There is now *Facebook U* offering paid courses. It will not be long when there will also be 'Facebook University' and 'Twitter University' as learning organisations, providing courses to potential students all over the word via MOOCs.

The MOOC business model is yet to be witnessed on how it will evolve. But one thing for sure is that MOOCs will continue to fulfil the organisations' and learners' need and thus will stay as an important element in the landscape of the corporate learning and recruiting.

#### 4. The impact of MOOCs

Is MOOCs effective? Is it comparable to face-to-face learning? Thus far, based on studies there is no reason to believe that it is not effective, in fact in certain aspects MOOCs works better in improving the course learning outcome [14]. An exclusive example is from McAfee which utilised MOOCs for training their sales staff. Using the skill they learned through the MOOCs, McAfee manage to increase sales by 20% a year [15].

There are a lot more success stories of a corporate-sponsored MOOCs program associated with a brand-name educational institution can be tabled in this paper. The investments are in billions of dollars which would make us believe that one day MOOCs training program is listed, ranked and respected.

##### 4.1. The many uses of MOOCs

When shopping for MOOCs the employer should have knowledge on the type of courses offered, the workload, prerequisite, levels as well as accreditation. An informed choice is important because it will affect the employee time.

On top training and educating, employers are also looking at MOOCs as a tool for research, specifically on training analytics – the way people learn, the course design, and the way people interact-- in order to predict future design and models for adoptable MOOCs.

Recruiting too, has become easier with MOOCs. When a company is looking for a rare and uncommon skill, it will create a MOOC and use it as a way to find the candidate in the pool of those who complete the course. Such a method is not only cheaper, but also innovative. Other than that, obviously MOOCs is also useful as a marketing tool.

#### 5. Malaysia takes the lead in offering MOOCs for public universities

It has been highlighted earlier in this paper that leading MOOCs providers are Coursera, Udacity, edX. The first two are for-profit providers, whereas edX is a non-profit provider ventured by Harvard University and Massachusetts Institute of Technology with USD60 million investment. With regards to universities, Princeton University, Georgia Institute of Technology and Stanford University, among others, are actively promoting MOOCs.

This section of the paper is to highlight an initiative by Malaysia, the first country worldwide to offer MOOCs for public universities. Four core university courses are offered via the MOOCs portal, <https://www.openlearning.com/malaysiamoocs>, can be accessed globally. The first session of 2014 commencing September 2014 have witnessed 16,000 students having enrolled in the MOOCs for those core courses namely the Islamic Civilization and Asian Civilizations, Ethnic Relations, Entrepreneurship and ICT Competency. The Ministry aims to increase the percentage of learning in the IPTAs via the MOOCs to 15% in 2015 and to 30% by 2020. Fig. 3 offers a snippet of the portal.

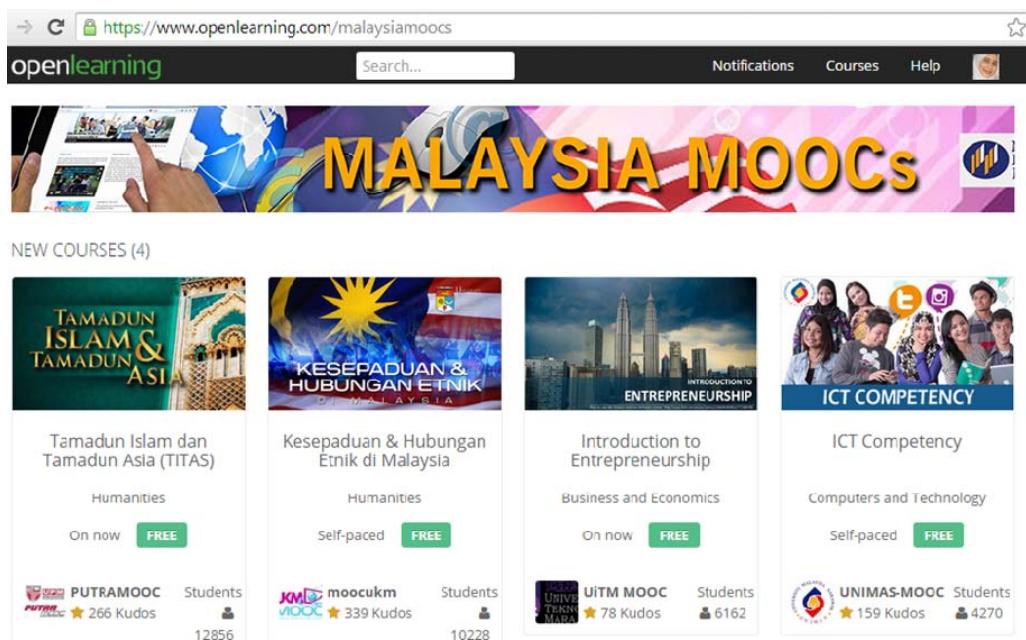


Fig. 3. The homepage of the Malaysia's public universities' MOOCs.

Malaysia started with open educational resources (OER) at their universities. In late 2011, 10 universities began to offer topics of courses in their OER repositories. It has developed since then and for now they have had enough contents to be offered as courses via MOOCs. Malaysia's MOOCs is adopting a different model since it is a top-down approach. The government (via the national e-learning council) decided on the course and the amount of the courses to be put up as MOOCs. All public universities are given responsibilities to come out with a number of courses to be MOOCed.

## 6. Conclusion and the challenges ahead

In essence, MOOCs is a tool and it is a new tool in that the numbers of learners that can have access to the learning material is unlimited, the contents can be accessed 24-7, and the students have control on their pace of learning. Being a billion dollar industry in corporate learning and recruiting, as evidenced from the given data in this paper, MOOCs has won the heart of many learning organisations. The organisations have taken substantial actions in supporting their needs and demands using at least four strategies namely reimbursing the employees, providing custom-developed courses, establishing corporate universities, and getting the licensed for certain academic courses from the MOOCs providers. The many uses of MOOCs as oppose to the skeptics on MOOCs, and the absent of its established model making MOOCs remains relevant as well as interesting. Being skeptics or not, it cannot be denied that the nature of learning organisations (also the higher education as in the case of Malaysian Higher Education highlighted in this paper) have changed and will continue to change as a result of adopting MOOCs.

The huge challenge is to maintain relevance. Does MOOCs really matter? Will it continue to be relevant? The answer relies on the quality of the content provided in MOOCs. But what about the cost in preparing the precision-built courseware for the MOOCs portals? As competition with MOOCs increases, learners will begin to compare and they will definitely choose the best because there is no cost incurred of choosing the best. Then another dilemma occurred – should the learning organisations compete while having similar courses to offer? Then, how to structure the learning? By brand? By business lines? By crowd? Another questions that need further planning, should the employees be given incentive upon completion of a course?

What about the criticisms on MOOCs as to never being able to equate for face-to-face discussion? And that the learners who complete the course are never recognised as being as skilful as those completed the same course via traditional learning institutions?

With regards to instructors, just how much of an online presence should they maintain? Will the instructor be the talking head and lose his/her function as an intervener, motivator and friend? What sort of support that need to be provided when the role of the instructor shifted towards more on preparatory work with less direct participation? Via MOOCs, how can we embed soft skills (analytical, communication, leadership,...) in students?

Bottom line, successful outcome will not just happen by accident. Thus careful planning and well-defined framework for the whole process of knowledge construction must be crafted.

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The ISCLO Conference 2014

# Telkom University's Readiness for Global Competitiveness through Its Use of Global Virtual Team (GVT) Among Communication Lecturers in Increasing Their Organizational Performance: A Review

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## Abstract

Nowadays, it is no longer essential for people to have a meeting face-to-face, or be at the same location. The global network and revolution that we are experiencing make 'long-distance' meetings possible and easy to access. It no longer matters if some big companies' product designers are in some part of the world, while their product development engineers are in, for example, India or China. As such, it is now exceedingly common for big companies in creating Global Virtual Team (GVT) inside their organization since it spans across boundaries of time, geography, nationality, and culture. Unlike the traditional team, GVT normally works on project basis. It is also (generally) self-managed teams which distribute expertise of complementary value that bring different core-competencies together. Unfortunately, aside from GVT's many advantages there are also disadvantages (i.e. misunderstanding) that come from little opportunities of direct exchanges which are crucial for strong relationships, cohesiveness, and trust. As a newly born university, Telkom University aims to become a world class university by 2017 where it will compete with other universities from around the world. Thus, Tel-U needs to assess its own readiness immediately prior its announcement in 2017 in the area of Global Virtual Communication so that its organization performance can be measured and if needs be improved. Based on the result of the interview, it is shown that GVT is still an unknown and relatively new concept to Tel-U's communication lecturers.

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**Keywords:** Global Competitiveness, Global Network, Global Virtual Team, Organizational Performance

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## 1. Introduction

Telkom University is a brand new university that was established based on the unification of four education institutions, under Telkom Foundation. Those four institutions were: Telkom Institute of Technology, Telkom Institute of Management, Telkom Indonesian School of Arts and Design, and Telkom Polytechnic. Launched on August 31<sup>st</sup>, 2013 the University has since developed and expanded. It has now seven schools which are: school of electrical engineer, school of industrial engineering, school of economics and business, school of computing, school communication and business, school of applied science and school of creative industry. With various targets and plans that each school wants to achieve, they nevertheless have the same vision which is to build a stronger and wider collaboration with other institutions (worldwide) as well as achieve academic accomplishments (through its students and/or academicians' involvement).

By the year 2017, Telkom University aims to become a World Class University by means of: cooperation with foreign universities, recruitment of international students, publication and/or research supports, and human resource improvements. Aside from aiming to become a World Class University, Telkom University also wants to expand its influence throughout the nation by creating 'National Campus' in several regions such as Makassar, Balikpapan, Medan, Purwokerto, Jakarta, Batam, and Manado. According to Johni Girsang, Head of Telkom Foundation, "The reason for the expansion is to give the opportunity for other Indonesians to gain access and knowledge under the tutelage of Telkom University [1]" Thus, it can

be concluded that in less than five years, Telkom University needs to establish a strong groundwork before expanding its influence nationally and world-wide.

In other words, it is only logical for Telkom University to prepare all of its resources toward the goal mentioned above. One of the resources that needs immediate attention is the human resources (i.e. lecturers). The reason it is important is because they are the medium through which the knowledge can be spread out nationally and internationally. Without them, it would be impossible for the university to succeed in its endeavours. Consequently, it is essential to know (from the earliest) whether Telkom University lecturers are ready to support the university or not and whether they are ready to use any means, or technological tools, that would enable them to communicate and/or collaborate with colleagues and students from great distance.

As the world changes, so does the way we communicate and use technology. Nowadays, it is no longer essential for people to have a meeting face-to-face, or be at the same location. The global network and revolution that we are experiencing make ‘long-distance’ meetings possible and easy to access. Big companies such as Microsoft, GE and Daimler-Chrysler, just to name a few, are able to access to markets, localizations of products, access to scientific talent and human resources, and exploitation of diverse capabilities of people from across around the globe [2]. It no longer matters if some of its product designers in some part of the world, while its product development engineers are in for example, India or China. Thus, organizational and geographical boundaries that usually prevent employees from working on complex projects can be avoided due to today’s digital electronic communication availability.

From a simple e-mailing to a more sophisticated audio and video-conferencing, they help people to overcome the barrier of distance and time, significantly. Unlike the traditional teams, Global Virtual Teams (GVT) normally works on project basis [3]. As such, GVT will likely play a vital role in uniting different areas of research or collaboration between lecturers and campuses. They will also influence the success of various projects since GVT are also generally self-managed teams which distribute expertise of complementary value that bring different core-competencies together. In accordance with their cross-boundaries accessibilities, GVT bring cultural diversities which more specifically consist of regional, national and organizational cultures [4]. In other words, GVT span across boundaries of time, geography, nationality, and culture. They address a very specific organizational goal with very little face-to-face interactions but more on computer mediated and electronic communication.

Therefore, the fast-growing and ever-developing technology needs to be acknowledged and understood by academicians, specifically, Telkom University’s communication lecturers as they are “experts” on human interactions and technology development. They are the ones whom people can rely upon when a phenomenon or problem occurs due to the technology development that affects the way the society communicates. One of those problems is the existence of little opportunity for formal and informal exchanges that are crucial for strong relationships, cohesiveness, and even trust.

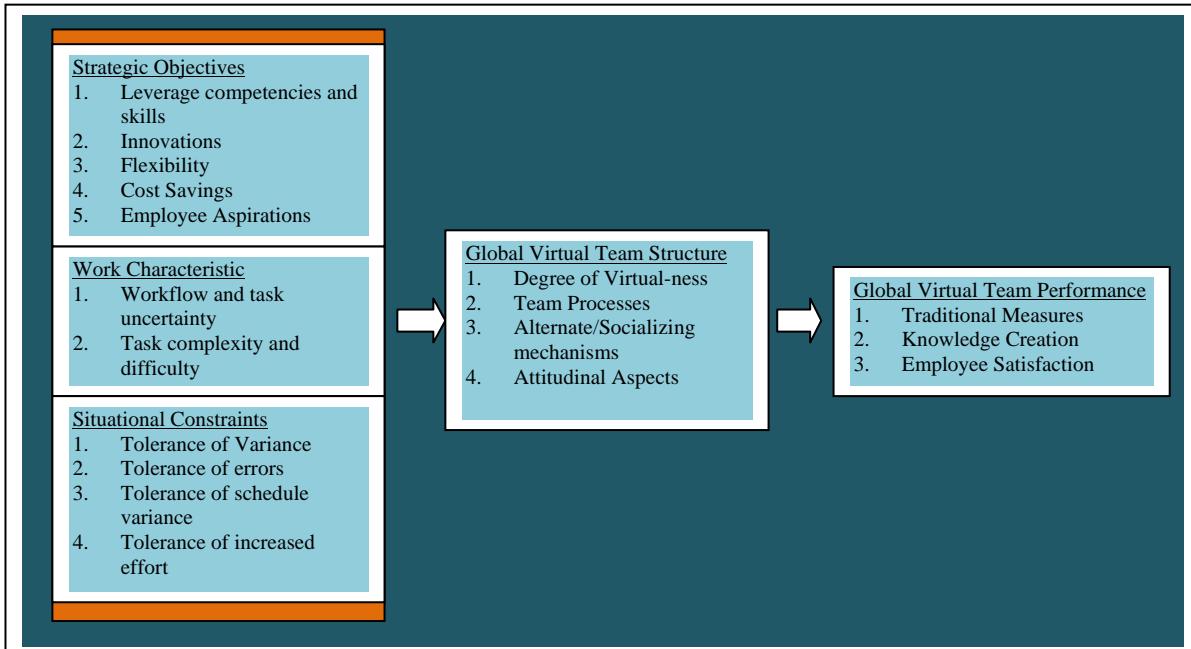
In 1997, Lipnack and Stamps [5] has revealed that the success of a virtual team is through its clarity of purpose. It means that the success of the team depends on how clear the goal they have to achieve is. It is the best indicator in knowing whether that particular virtual team has succeeded or not. In other words, “The clarity purpose and participatory process by which the group achieves it is the ‘best predictor’ of a virtual team’s success.”

Hence, the purpose of this paper is to find out (the level of) readiness of Telkom University’s communication lecturers in anticipating ‘World Class University’ in 2017 through their understanding of Global Virtual Teams’ existence. Unfortunately, the uses of in-depth interview to 19 Tel-U Communication lecturers indicate that none of the Tel-U Communication lecturers is aware of GVT’s existence. Though they are able to decipher the acronym of GVT, they are nonetheless not sure of its significance or its implication. Thus, it can be assumed that up until now Tel-U Communication lecturers are still not ready for global competitiveness if the level of readiness is through the understanding and use of GVT. Additionally, it also indicates that their organizational performance needs to be improved prior to Tel-U announcement for becoming a ‘World Class University’.

## 2. Global Virtual Team

### 2.1. An overview

According to Prasard and Akhilesh [7] Global Virtual Team Performance model is as the following:



**Figure 1.**  
Global Virtual Team Performance Model

The structure of global virtual team indicates that ‘virtual’- ness is *the* essential part of the team that differs from its counterpart which is the traditional team. Instead of emphasizing on face-to-face meetings, employees rely on information technology (i.e. email or teleconference meeting) as their communication’s medium which helps them to contact one another without time and/or location’s constraints. As such, the team’s decision-making-process whether it is centralized or de-centralized will depend solely on the agreement between the employees beforehand. Whether the information sharing or socializing mechanism is formal or informal, and whether they decide the time and location during communication, varied completely from the traditional norms.

In a traditional team, the decision-making process is usually immediate and centralized. Employers meet, discuss and decide with their employees in an appointed time and place where the process can either be long or short. In the information sharing or socializing mechanism areas, the traditional team usually can do them anytime and anywhere they want during office hour. From taking lunch-together to standing near a water cooler, employees can share certain information as well as socialize to strengthen their bond and trust between one another. The formalities and informalities that a traditional team use during socializing time can immediately be recognized and understood as employees experience at the same time and location zones. It is unfortunate that such experiences and atmosphere are more difficult to achieve by the Global Virtual Team.

In addition, based on the model above, the formation of a Global Virtual Team begins after three important components come together. They are: strategic objectives, work characteristics and situational constraints which create the team’s distinctiveness and effectiveness. In its strategic objectives, Global Virtual Team focuses on using the employees’ competencies and skills to maximize productivity and solve complex problems with the lowest possible costs. Hence, it requires a wide-space for innovation and flexibility so that employees can achieve their goals or aspirations.

The second component is situational constraints that companies and employees should be aware of because unlike a traditional team, it has constraints that are greatly influenced by the digital technology dependency. One of the constraints is the variation of quality since the teams (or companies’ sub-divisions) are spread all around the world and are inclined to have different perspectives of the word ‘quality’. Even though a standardized quality work or product is created, different time and location zones as well as culture can distort it. Consequently, a tolerance of schedule variance, errors and increased effort needs to be anticipated.

The last component that affects the shape of Global Virtual Team is employee's work characteristics where workflow and task uncertainty, as well as task complexity and difficulty, contribute significantly. Since it has its own tasks and process of transformation, the degree to accomplish the job becomes uncertain when a lack of knowledge exists in getting the work done. Moreover, the lack of appropriate inputs of technology and time adds to the task's complexity and difficulty.

All of the three components become the 'personality' of the Global Virtual Team. Their inter-reliance's link forms the Global Virtual Team's performance and outcome. Similar to the traditional team, its performance and/or outcome will be measured by the team's cost-control, on-time delivery, and product-service quality. It will also be expected to execute knowledge creation and employee's satisfaction, at the end.

According to Robey et al., [8] the rapid growth of the internet and related communication technologies has afforded organizations limitless opportunities to adopt virtual teams that transcend time, space, national culture and organizations.

## 2.2. Advantages and disadvantages

Below is the summary of advantages and disadvantages that the authors have gathered from various resources:

**Table 1.**  
Advantages and disadvantages of GVT

No.	Global Virtual Team Advantage(s)	Global Virtual Team Disadvantage(s)
1.	Lower normative pressure because the virtual communication environment reduces the exchange of social cues. These cues implicitly pressurize the minority to conform to the shared view of the majority [9].	Inequality of work/product contributions
2.	Large pool of knowledge	Hinders trans-active memory [10].
3.	Anonymity : less risk of embarrassment when expressing ideas	Their ability to handle non-verbal information is very limited [11].
4.	Ideas are valued on the merit instead of who has presented it.	Diversity in culture
5.	More heterogeneous	The deficits experienced by virtual teams in the interaction and examination stages of information processing
6.	Equal participation of every member of the team	Stereotyping [12].
7.	Effective in brainstorming [13].	Take longer in decision-making because of less information exchanged [13].
8.	No biases	Satisfaction team member is low
9.	Virtual teams offer the promise of flexibility, responsiveness, lower costs and the improved resource utilization necessary to meet the ever-changing task requirements of companies operating in highly turbulent and dynamic global business environments [14].	Development of trust and team identity more difficult [6]
10.	High levels of trust. Clear communication, Strong leadership. Appropriate levels of technology [12].	Multiple time zones, Language, Different approaches to conflict resolution [12].

Several scholars (Mowshowitz [14], Prasad and Akhilesh [15], and Bergiel and Balsmeier [16]) have mentioned that virtual team considerably cut time and travel expenses. They have all agreed that the significant expenses associated with accommodation, travel and various daily allowances may be reduced and even eliminated as virtual team communicate via technology. In addition to that, virtual team eliminates biases or stereotypes because its members are more heterogeneous and chosen based on their expertise. One interesting aspect that Bergiel and Balsmeier [16] mentioned on their paper is that, "physical disadvantaged-employees gain easier access to the virtual workplace than to a physical office." This indicates that

every employee has the same opportunity and access that enable them to work professionally and proficiently without any constrain of physical disadvantages.

### 3. Summary

Based on personal correspondence up until now, there are 32 communication lecturers at Telkom University. They are from various cities and are between the ages of 24-39 years old. Most of them are new recruits and have different interests ranging from marketing communication, broadcasting, journalistic, politics, technology development and cultural studies.

Each one of them understands the university's mission and goals, to a great extent. The reason is because prior to their being formally recruited, they had to undergo a one-week (semi-military) training where trainees were made aware of Tel-U's vision, mission and goals practically every day. As a result, after the one-week training, trainees or new employees are not only familiar with Tel-U's culture but also triggered to achieve its objectives.

Thus, in order to assess Tel-U's readiness prior becoming a 'world-class university' by the year 2017, it is essential to know its lecturers' abilities in facing global competitiveness. By using in-depth interview, 32 communication lecturers were asked whether they have heard of Global Virtual Team (GVT) and are aware of its value. Accordingly, the answers will lead to understanding the level of organization performance of each one of them.

Unfortunately, the result shows that only one of Tel-U's communication lecturers has heard about GVT and only one person gets it right. This indicates that the significance of GVT is still unknown and relatively new to Tel-U's communication lecturers. Even though five of them could decipher the GVT abbreviation, none of them is sure of its implication or existence. Therefore, it can be concluded that Tel-U's communication lecturers are still in need of improving and developing their knowledge as well as organizational skills. Although there is always the assumption (that in actuality) Tel-U's communication lecturers have practiced GVT 'unconsciously' through their collaborative research with colleagues from other universities or other regions, for example.

Though the theory of GVT's existence has existed since 1997, but it is still a new entity for Tel-U's communication lecturers. It is unfortunate since Tel-U aims to spread its curriculum nationally and internationally, in the near future. Although most of the lecturers have heard of GVT, the author is convinced that they have actually done GVT's activities without 'labelling' or 'knowing' it as GVT. A further study or research need to be done, in order to prepare and facilitate the campus's objective prior to its 'world class university' announcement.

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## The Cyber Politic: Transformation of Marketing Politic in Cyber Age

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**Abstract:**

As the oldest study after philosophy, communication studies are currently listed as the forefront of the development of the global media environment. The emergence of new media presents a conventional media convergence phenomenon, starting with the appearance of the internet and mobile communications access with highly speed of the system. By having the speed of access, new media is able to build a new community that is encapsulated in virtual communities. This development is considered as a radical challenge (extreme) by conventional theory, because it is dominated by new media communications approach to international communication (interaction of global/transnational). It includes political discourses. With the purpose of understanding the dynamics of contemporary media seriously, it requires the researchers to leave the meta-theoretical frame work of modernization, dependency theory, and globalization; and to focus sharply on a study that yields insight into the context of the communication process, with a focus on the analysis of cyber theory, including the social and political implications. Media, through communication studies across all reality always meshes among social, economic and political. By having the initial assumption, media become something interesting to be researched. Moreover, a brief study bringing new awareness to a new theory called Cyberpolitics has been developed. With a qualitative approach the researchers will face the reality in a critical way. This research is also focused on providing an explanation about the transformation of political marketing in the era of Cyber Media.

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*Keywords:* CyberPolitics, Global Communication, Cybermedia Space

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### 1. Introduction

According to the previous researches, the content of communication science has not been able to follow the changes and developments of global media environment. The emergence of new media presents a conventional convergence phenomenon. The historical record begins with the advent of the internet and mobile communication access with the speed of the system. These conditions affect the existence of a new theory, namely Cyber Media. This situation brings the new media with new communities. It is encapsulated with a name called virtual communities.<sup>1</sup>

The development of these situations becomes a radical challenge for conventional theorists because it is dominated by new media communications that is acknowledged as global communication. By having this reason, this study participates to build what we call cyber politics. It is a new study about political actions taking the main theme related to Political Marketing. Basically, in the era of conventional political marketing was done manually, and the design of political campaigns was also still in the form of conventional texts. Nowadays, we understand that many parties subsequently use the cyber area to build political awareness of the community.

In this brief study, the researchers will explain some of the theoretical implications of the emergence of digital culture as part of the study in political communication. By having this reason, the researchers applied the media study to official political parties in Indonesia, namely *Great Indonesian Movement Party (Gerindra)* and *National Demokrat Party* that actively participate in the social networking media.

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Referring to this reason, the purpose of this study has led to the discussion about the concept of comparative issue based on the principal relevance between global communication studies and political communication. It is also related to communication technology. The framework explains about the understanding of Cyber Media and political marketing in the cyber era.

The discussion started with moving forward to see the role of space in the Cyber Media political upheaval in Indonesia in 2014, and is finally closed by conclusions about the broader implications of the case

Before analyzing this research, the researchers will explain about what Cyber media is in theoretical review.

## THEORITICAL REVIEW

### The Understanding of Cyber media

The term of cyber media is inspired by hypermedia. Basically, it has been used for a long time before the internet appearance. It was used to mention the conventional media such as television and radio. Along with the change in communication technology and the emergence of new media, the term of cyber media refers to the internet utilization. Ronald Delbert (1997), a scientist in the field of International Relations gives his opinion on Cyber Media or hypermedia:

*... Not only captures the convergence of discrete technologies, it also suggests the massive penetration and ubiquity of electronic media characteristic of the new communications environment ... the prefix "hyper" (meaning "over" or "above") emphasizes two central characteristics of that environment: the speed by which communications currently take place, and the intertextuality or interoperability of once-discrete media" (pp. 114-115).*

Although the ideas about Cyber Media stated by Deibert were formulated before the advent of YouTube, Facebook and Twitter, it can be seen clearly that the new development reinforces the ease of movement and flexibility of digital information with convergence concepts. Mobile phones, tweets, email, social networking, text messaging, digital cameras, video online, electronic newspapers, and satellite television, thereby have formed a communicative environment (read: *cyber media space*).<sup>1</sup>

This explanation is considered as criticism to the previous theorists in the formulation of the mass media before the digital world appearance and the mass media is still grouped in one area, namely television, radio, newspapers and movies. But now, when digital communication technology dominates the situation, the past era was no longer relevant to be used in the convergence era.

This presentation will focus on the main theme as mentioned above. It explains the related implications towards Social and Political Communication. The emergence of cyber space is a qualitative leap in terms of how each person searches, accesses, produces, and reacts to information.

It is important to know that cyber space is expanding through communication technology. Today, people are easier to "produce" messages in the era of mobile devices and blog. The conclusions of this paragraph assume that the new media space give contributions. Consequently, there are many people who are theoretically able to convey messages, and then we can expect the number of discourse arise in culture through the flow of communication in several directions and roles of producer and receiver of information that has been encrypted.

### Communication and Political Marketing

Political communication has become a part of science discipline for a long time and is listed in the social sciences curriculum. It is admitted to both in the study of communication sciences and in the study of political science. Not only were students to be enthusiasts but also were the political figures involved in the political communication as members of the House of Representative, political observers, and other political activists.

In Indonesia, many moments of political activity occur and involve a lot of community such as: the direct election of parliament members (General election), President (Presidential Election), and regional heads (Regional Elections). The

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<sup>1</sup> The description explicitly states that television is separated into two distinct areas of communication between conventional television using transmitter manual and the era of digital television using satellite. A satellite television in the order of the one agreed upon by the framers of the global communications as part of CyberMedia , though it is same in context but different network acceptance and global. View: Greedy Alexa, Utopia Virtual Community in Singapore. (Singapore: FEST Publishing, 2010), p. 119

political activities create various forms of political communication. Therefore, the study of political communication will continue to evolve with the passage of maturation process in Indonesian politics.

*"Political Communication as a political activity is the delivery of messages politics characterized by political actors to others" (Maswadi Rauf, 1993: 32)*

If we discuss the term of "communication", it will lead to a variety of meanings. It could be a set of hypotheses about the process or intuition exchange of ideas, messages and also information from the sender (sender/source) to the receiver (receiver/respondent) in order to elicit a response. Many books are written by the experts of communication and none of them dare to give a single illustration of the definition of communication, because communication was born on the basis need to explain what was happening in reality.

Etymologically, the word "communication or communications" is derived from a Latin word "communis" meaning "equal", or "communicare" which means "making the same" (to make-common). In a simple way the definition of communication refers to the transfer of information from the source to the recipient to receive a response or share information, ideas, and attitudes. At first, communication was the study of the problem in conveying messages. Along with time, the progress of science has very significant impacts for the development of communication. Communication Studies (Communicology) is the interdisciplinary science having a background study of the various fields of science, especially in social sciences.

Harold Lasswell; the father of Political Science, conducted some research by taking samples of propaganda in World War II (WW II). The results of these studies have become a major contribution to the development of communication science today. In addition, Kurt Lewin is known in the field of Social Psychology, Paul Felix Lazarsfeld is a Doctorate in Applied Mathematics from the University of Vienna, and the last of the four fathers of communication was Carl Hovland whose background was Psychology from Yale.<sup>2</sup>

Meanwhile, the word "*politic*" originated from the word "**politicus**". It comes from *Greece* "*politicos*" meaning *relating to citizen or something that has relationship with audience interest*. Both of them originally come from the word "*polis*" that has meaning as *city state*.<sup>3</sup>

Politics has been considered as a pioneer of political science since more than 2500 years ago. It affects political concern and almost influences the scholars from all era. Politics is also consider as the *Master of Science*.<sup>4</sup>

There is no scientific and human civilization regardless of the political review. For examples, there were St. Augustine, Maimonides, St. Thomas Aquinas and Calvin. There were also philosophers such as Plato, Aristotle, Kant, Hegel and Maritain. The poets included Dante and Coleridge. The famous novelists were like Dostoevsky, Hawthorne, and Orwell. Other scientists were like Priestley and Huxley. There were also Einstein, the mathematician, and statesman par Einstein Cicero, Burke, Calhoun, and Wilson.<sup>5</sup> They all were a bit of thinkers who were affected by the enjoyment of political studies.

In political marketing, there are at least three basic things that will be discussed. The *first* is the political motive itself. It consists of the conversation of related questions why somebody should go into politics and the way of reflecting the political life. The *second* is the media, or it also is considered as the image industry. This discussion for now will focus on the issues of cyberpolitics. The third is with regard to the constituents who will receive political messages.

Referring to the formula of Lasswell, politics is often defined as a "who gets what and when". Thus, Lasswell provides an overview that is an effort to achieve political power. The instrument to used as the "access to" the power" in Indonesia and also in democracies is through the general election.

Nowdays, the reality of the political has been demanding individual politicians or parties to have access to the widest possible as mechanism of image industry. It is called the communication and information industrial based which will market an idea, ideas, thoughts and political actions. Politics in the perspective image of the industry is an attempt to influence others to change or defence a certain power through the packaging image and popularity. The more a politican can show a good image, the more of opportunity to have greater power he can get.

<sup>2</sup> Antony, *Riuhnya Persimpangan Itu: Seri Komunikasi*. (Solo: Tiga Serangkai, 2004), h. 99, 81, 103 dan 47.

<sup>3</sup> Ramlan Surbakti, *Memahami Ilmu Politik. (Understanding Political Science*. Jakarta: Grasindo, 2010)

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Almost no component of political system can create a symbiosis mutualism relationship between politicians and political image industry. There are components such as political socialization, political recruitment, interest articulation, interest aggregation, the rule-making process, and the establishment of enforcement and the implementation through access to the industry's image. Among the most prominent images of the industry today is the mass media industry.

The main strength of the media cannot be denied in today's information age. The power of constructing reality means the strength in packaging the issues. So, it stands out to the surface and eventually becomes a public discourse which is interesting today. There are many people, or social and political institutions showing their interest in the media. They seek to have access to enter and influence the media, with the assumption that controlling over the media will be the entrance in packaging and controlling public opinion. Furthermore, by controlling the public opinion it is expected to be easier to direct preferences as expected by candidates.

An opinion in communication perspective is seen as an active response that is constructed through personal interpretation that develops from the image. Because the opinion itself is considered as a response which is constructed, it will be a strategic situation from the politicians that are in fighting periods to give attention to the packaging of opinion for political purposes.

*Firstly*, Credibility or it is about something to believe or not to believe.. By having a good marketing strategy, the audience will be directed to believe the concept that has been arranged by the candidates. More people will trust the candidate, the more positive public. *Secondly*, in the opinion it self contains the welfare value dan deference value such as the searching of welfare, prosperity, skill and enlightenment. Meanwhile the deference value are the respective building, moral rectitude reputation, attention dan the power of popularity. By understanding the component of the value, it will be better for the candidates to understand that public opinion can not freely flow but it must be conducted by elegant ways.

*Thirdly*, the opinion is built from components of expectation. It is related to a conative component. It comes from the aspect of personal image and interpretation . Psychologists consider it as impuls, volition and striving. The awareness of packaging the public opinion is also the way to reach ideal achievements as expected by public. The more spacious shaded area between the expectations of candidates with voters is created, then the greater the chances of a candidate will get to win the battle of image perception.

## CASE STUDIES Y

### 1. Cyberpolitics Campaign of *Partai Nasional Demokrat*

National Democrat Party (Nasdem), is a new party that for first time will participate in 2014 general election. Having interest to observe the activities undertaken by the Nasdem cyberpolitics, and seeing the enthusiasm of cyber communities and social media, the researchers realize that it is not only as a socialization purpose, but it is also considered as online marketing tools for political campaign. Internationally, the way of this campaign has brought Barrack Obama to be elected as the president of the United States in two periods. His victory was assisted by social networks like twitter, blogs, and Facebook.

According to that situation it proves that social media campaign is effective, and it brings advantages. In Indonesia, it has been used but limited to being the complement of the campaign. According to MarkPlus insight, the number of the internet users in Indonesia by the end of 2012 ha reached 61.08 million people. The figure increased by about 10 percent than in 2011.

To dominate the communication with the public becoming one of the key success to win the competition in politics and social media is an effective channel. The political movement or activities by using social media is commonly used in Indonesia. Nowadays, politicians are aware of using social media. Moreover, while facing legislative and president election in 2014 Patrice Rio Capella, General Secretary of Nasdem party, is demanded to be able to make relationship with the citizens through social media. It is expected to become one of the key successes to win Nasdem Party leading by Surya Paloh to socialize their programs by using Facebook, blog or website. It becomes the thesis of cybermedia.

### 2. Cyberpolitics Campaign of *Partai Gerakan Indonesia Raya (Gerindra)*

The first general election in 2014 has passed in Indonesia, but the politicians have not stopped working yet. The general election to choose president needs a tight strategy. Gerindra still needs supports collected from social media. Besides using the line advertising through mass media such as TVC, the social media is also considered as integrated marketing communication tools as the medium between the leader of political party and the society.

Conversations in social media such as Facebook and Twitter are now able to break through the wall of bureaucracy which has been a barrier between the public and political elite. Egalitarian, responsive and cozy styles are the hallmark of the users of Facebook and Twitter. Low budget becomes one of the reasons to use social media. Some of the political parties recruit media online teams to make them as a tracking conversation among social media users. Gerindra seriously handles this part by hiring 13 (thirteen) people to manage website, Facebook and twitter for this party.

Team members take turns giving status updates, reply comments and friends on Facebook mentioned by the "follower" or followers on twitter every minute. Citing news at Antara News, the Gerindra chairman, Suhardi, said that social media was an effective medium to interact with the community. His statement was delivered with a single "click", and it could immediately be accepted by thousands of people in a short time. Then, people can directly comment on the statement.

Regarding this phenomenon, Gerindra leaders often consider input from Facebook and twitter to arrange party's internal policies. For example, in the nomination of Deputy Governor of Basuki Purnama Tjahaya, Gerindra got a lot of feedback from the Facebook and twitter. Suhardi said, Gerindra would maximize the use of social media in winning legislative candidates and presidential candidate in the 2014 election. This is a "ground war" strategy of Gerindra. Gerindra has 18 043 followers with twitter account @ Gerindra and 1.236 million friends on Facebook with the same name. Meanwhile, the presidential candidate, Prabowo Gerindra, has 151 059 followers on the account @ prabowo08 and 1.2 million friends on Facebook with the name Prabowo.

## CONCLUSION

### Cyberpolitics: The Transformation of Marketing Politics

The case studies described in the paragraphs above have raised several related issues between Cyber Media and political space. It is important to build the Cyber Media space in ways that combine mobility, interactivity, and visibility. Now we can see the theory in which the activists of Cyber Media enable to configure interactively inter-connected media between old media and new media. A Cyber Media space theory is an important part of the emergence of media-YouTube, Facebook, Twitter, and so on.

Meanwhile, the term "old media" such as television and newspapers are important links that exist in the space CyberMedia. "New" and "Old" media are locked in a relationship, and they cannot be separated because they are a single entity in the historical development of communication technology. They are interdependent, reinforce each other, and complete each other well.

For Nasdem and Gerindra, the text messages and digital interaction have functional benefits as devices delivering the importance information to develop visibility news in television. The combination among mobile phone, computer and television should be connected in an integrated way through social media in order to be shared widely. Meanwhile, the future study of political communication related to cyber depends on systematic research about problems, and explores issues connected with the theory as the way to discuss "old "and "new" in integrated ways. Social media is not resilient enough to build propaganda without television support.

In contrast, television is still pretty tough to stand on its own without the help of Cyber Media. The important point is not the time to celebrate or lament the advent of new media, old media, in fact, is still capable of being themselves. However, we must be careful not to adore the new technology. Otherwise, we stay to focus on people who are politically motivated when they use the technology in a social and political context in each of their actions, both nationally and globally.

Cyber Media space is one of the social networking sites as stated by Bolter and Grusin opinion: "Media has the right, but the right agent ... limited ... he is an agent of cultural change agents through formal material interaction, and economic logic that creep in and out of the reach of individuals and social groups ". To follow the general line of thoughts is to avoid media determinism. In this regard, we propose a theory of media dependency and imperialism that find an agent exclusively in the structure of the political economy; media technology; and culture, and a theory of active users who think about the meaning of media messages.

Referring to this case, the relationship between communication practices and situations in areas requires further exploration and requires a lot of theories. One way to begin with in the study is to distinguish between information and

mobilization. "Twitter Revolution" is developing considerably among countries such as Indonesia. Cyber facilitates cross-border exchange of information, **but how effective the cyber space in organizing the masses is still under investigation.**

It could be argued that the nature of the media "public" and the high visibility they have make them perfect to combine mass diffusion, while information at the same time makes them ineffective in carrying out operations in the context of volatile clandestine. Cyber Media space provides an alternative space for social activity control (Kraidy, 2006). Process of technology enables to take place, where other actors are ignored after another actor who plays another role.

### Social Construction of Reality at Cyber Media

Peter L. Berger and Thomas Luckman provide an overview of social construction. The social construction of reality occurs simultaneously in a procession through three stages. The first is the externalization. The second is objectification, and the third is internalization. The three of such processes occur and fuse among individuals in society. Actually, it is all right to manipulate the reality of Cyber Media, but it still needs a companion from conventional media like *television, radio and newspapers*.

Substance theory and social construction of reality approach assumed by Berger and Luckman are simultaneous processes that occur naturally in the language through daily life in a community of semi-primary and secondary. An important note in this discussion is that the realm of the mass media has not been much discussed when the initial research is done. The social basis of this approach is that the theory and the transition-modern society in America in about 1960, in the era of mass media, was still an unpopular thing<sup>6</sup> and had not been an interesting phenomenon to be discussed. Thus, propaganda at the time still used manual media away from today's technology.

Thus, the theory of social construction of reality delivered by Peter L. Berger and Thomas Luckman had not included the mass media as a variable or phenomena that influenced the social construction of reality at that time. Now a change has occurred with maximum speed and no one has been able to stop, especially the advancement of communication technology-based mass.

Without the existence of mass media, the message distribution in the social construction of reality will improve slowly. It needs more time to build opinion for creating reality of the media. It can be spatial (discontinuous), and takes place in a hierarchy-vertical structure, in which the social construction begins from leaders to subordinates, leaders to their masses, clerics to its students, teachers to students, parents to their children, and so on. In this context, the social construction of the building requires more *gate keepers*<sup>6</sup>.

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<sup>6</sup> Onong Uchjana Effendy. *Ilmu, Teori dan Praktek Komunikasi*. (Bandung: Aditya Bhakti, 2003), h. 65

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# DEVELOPING SOCIAL MEDIA STRATEGIES IN FACING GLOBAL COMPETITIVENESS FOR MARKETING COMMUNICATION ACTIVITIES

(Case Study at Air Asia Airlines)

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## ABSTRACT

Today, using internet activities as a tools for developing something in our daily life especially in some companies is one of an important things. Using internet becomes something that very important for peoples both for personal and business activities. By using internet, we can get a lots of information and doing communication speedily. The internet utilization also support marketing communication program in global competitiveness especially in sharing companies messages to its market.

Air Asia Airlines is the one of the biggest low cost airlines in the world which most of their marketing activities using internet and social media. In journal with title “Attracting user social media engagement : a study of three budget airlines facebook”, we can found that Air Asia, Southwest Airlines as lowest cost airlines using internet to doing their marketing communication activities, different from Ryan Air, they still using traditional media to do marketing communication activities. Since 2001, Air Asia Airlines has directly changed the norm of aviation in the world as innovative solution of travelling, efficient process and some new approaches that created by this company. One of them is in the part of promotion purposes, this company is able to cut in promotion budget through cyber activities. The using of social media activities is the one of the way that company used to engage with the customers and support relationships marketing.

The objectives of this research is researchers want to know the way of Air Asia Airlines strategies in using social media to support their marketing communication activities, and in the end of this research is about social change behavior. In this research, researchers used case study method and qualitative research using literature review with related theories in order that to know in-depth about the developing strategies. The results of this study will show the steps of social media strategy that used by this company as marketing communication strategies.

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**Keywords :** Communication strategies, Global competitiveness, Social Media

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## 1 Introduction

Social media technology can be said as a “given” in this era. It has been considered as a “must have” as a medium to build communities and communicating the brand. It must be realized that people lived largely in “offline” situation and made the interaction limited from one person to another person by face to face communication, in front of television and using headphone. Today, the way of communication has changed through the enhancement of internet and social media. People are enjoy making interactive communication through media. This situation is also used by many organizations-including business, nonprofits and government agency with the purpose of marketing, public relation in order to get direct connection to customer and stakeholder whereas today most of them use smart phone or gadget in daily life. The

Engagement with the customer through social web means customer or stakeholders become participant rather than viewer. They can easily give the feedback to the promotion.

Air Asia airlines is one of the airlines company which uses social media engagement with the purposes of promoting. This company can be said as the trendsetter in Asia that used internet connection to engage with the audience. This company used social media to inform their marketing communications program. In the moment people read the message, they can easily give the company feedback. For instance while this company inform about their sales promotion program “free seat” on Facebook and Twitter. Mostly customer give them feedback through the comment such as the great feeling while they happy because of having the free seat or expressing sad while they don’t get it. In directly, it becomes word of mouth building through online medium. It means that engagement in social context implies that customer has taken personal interest in what the company bringing into the market. Ultimately, it becomes social business for Air Asia airlines because there is participation with and by its customer and stakeholder in pursuit of an organization that is strongly connected to the company through the participative and collaborative process. As a result social business is often better able to respond to market place dynamic and competitive opportunities that traditionally organized and managed the firm. Today, there are many low cost airlines (LCA) model born after Air Asia airlines and also follow what this company do in running the business such as , online reservation , print own ticket , no food on flight but sale it until using social media as a medium to communicate with their audience. The followers of the LCA even give more strategy to make different value from the “gorilla” in LCA as a Unique Selling Proposition (USP). As a trendsetter, Air Asia has succeeded making collaboration between community members, employees or firm and its representative comes about both parties in the transaction see a value in completing the transaction, often repeatedly. It is proven by the output of collaborative process – the number of jointly developed solution advance in expert community. As the most basic level, while a company use online interaction with Air Asia airlines, the activity itself can be tracked. For instance; while audience buy the ticket, they put their email to fill in reservation process and indirectly it becomes a data base for the company to inform further promotion. This company has done the process of customer relationship management (CRM) whereas the sales cycle, CRM form a data driven understructure that powers an overall customer life cycle. Based on historical transaction, the insight into what customer may need next, or when a particular customer may be ready for an upsell, offer generated based on past transactional data and the larger purchase or use patterns that exist across the entire customer base.

## **2 Research Background**

The biggest opportunity in marketing communication has been the shift from “push marketing” to more of a conversation with customers. In the past, companies were limited to communicating directly with people through radio and television commercials, print advertising, billboards, and other “old media” ways of marketing. But somewhere along the way, people got cynical. It turned out that friends and colleagues were probably more honest about products and services than the self-interested companies that marketed to us. So it started listening to our friends and social networks more and traditional advertising less. As in figure 2.1 below ( Treadway and Smith,2010), it shows that the product or service experience creates a conversation, one that is often directed or intended for a specific audience and which often exposes or suggests an opportunity for innovation. This is the new role of the customer, expressed through its impact via the traditional CRM process, integrated now with a social component.



According to (Treadway and Smith, 2010:39) the way should frame our thinking when setting the stage for marketing plans today? Five years from now? and how should long-term strategy be structured to give social media a competitive advantage? allow me to suggest five broad themes that I think will define social media and marketing for years to come:

**1. The need to share information.**

If the rise of mainstream social media has proved one thing, it is that a lot of people have an intrinsic need to share things about themselves. Maybe it's self-importance, maybe everyone needs to feel like a celebrity. I don't know. But social media today captures a lot of mundane information about users. Word-of-mouth marketing has become both a threat and an opportunity to modern businesses—social media provides the loudspeaker.

**2. Immediacy is here to stay.**

All of the tools provided in social media give people an opportunity to respond immediately to things and share those reactions with friends in real time. It could be a great experience with a restaurant, a terrible interaction with an airline at the airport, you name it. With immediacy comes human emotion power.

**3. Everyone is a source of information, and everyone is biased.**

In this era, people don't just hear about news, events, and so on from the local TV news broadcast and/or newspaper. People (not to mention your customers) hear about things from blogs, twitter, articles, casual conversation

**4. Noise level**

Everyone is now a publisher and a celebrity in their own world. So it takes a lot of effort to keep up with it all, if you choose to do so. This can work two ways for marketers—some people will respond to direct engagement that cuts through the clutter. Others will instead ignore your noise alongside everyone else marketing a product or service.

**5. Melding of worlds.**

If someone will like it or not, the openness of social media means that it is almost impossible for users to keep different parts of their lives distinct. Things done offline invariably find their way online and it may not even be your doing. And all those things are available for your personal and business contacts to enjoy.

According to ( Treadway and Smith,2010:33) , Social media today becomes the truth network, here are seven truths of social networks that can rely upon. If you're going to bookmark one page of this book, bookmark this page because these truths should guide your thinking regardless of what you do with social media:

1. social media is the preferred way for people in younger demographics to communicate with each other. Nothing else comes close.
2. social media is based on the concept of friends, but that term today is very loosely applied. similarly, profiles are loosely defined and can be used in a variety of ways by people, companies, brands, and so on.

3. the more active a consumer is on the Internet, the more likely they participate in multiple social networks. oftentimes, these people are influencers within a circle of friends and have a tremendous impact on the opinions of others.
4. once information is shared on a social network, it is out there and can't easily be contained. everything is out in the open and largely visible for other people to see.
5. social media is best applied in addition to existing Internet marketing programs and alongside other Web assets. When building a strategy, you must think comprehensively.
6. the rules are still being made. social media "etiquette" is still relatively immature. tread carefully.

### **Social Media**

Social media is online media that users can easier to participate, sharing and make some blog, social media, wiki, forum and virtual world. Blog, social media and wiki are one of a common things of social media that used by users in the whole world.

Based on Andreas Kaplan and Michael Haenlein, said that social media as "a group of application based on ideology and internet that build by technology web 2.0, and it can be create some "user-generated content".

Kaplan and Haenlein created clasification scheme for many kinds of social media in the article of Business Horizons that published in a year 2010. They're said there're 6 (six) kinds of social media, such as :

#### **1. Collaborative Projects**

Some of social media that can make some content and can access by users globally. There're 2 (two) sub-chategory of this social media, there're :

i) Wiki

is a site that users can make something new, to adding something, deleting something or change the content based on text. Examples : wikipedia, wikiubuntu-ID, wakakapedia, etc

ii) Bookmark Social Application

is an application that can create some group ideas based on internet link or media content. Examples :

Social Bookmark : Del.ici.ous,StumbleUpon, Digg, reddit, Lintas Berita

Writting : cerpenista, kemudian.com

Reviews : Amazon, GoodReads, Yelp

#### **2. Blog and MikroBlog**

Is an application that can helped users to posting all about things to make peoples understood that things. Blog is some website that can sharing something about author or group of author even about some opinion, sharing experineces, or daily rutines.

Examples :

- Blog : Blogspot, Wordpress, multiply, Live Journal, etc
- Microblog : Twitter, Tumblr, etc
- Forum : Kaskus, forum detik, etc
- Q/A (*Question/Answer*) : Yahoo! Tanya Linux, etx

#### **3. Content**

Is an application that used to sharing to peoples in a long distances or short distances, sharing something like videos, e-book, pictures, etc. Examples :

- *Image and Photo Sharing* : Flickr, Photobucket, Devianart,etc
- *Video Sharing* : Youtube, Vimeo, Mediafire, etc
- *Audio and Music Sharing* : Imeem, Lastfm, multiply, etc
- *Design* : Threadless, Ganti baju, etc

#### **4. Social Networking Sites**

Is a sites that can help someone to make some profiles and connected to another users. This site is an application that can make users to connect with others by using private profiles or private accounts. Examples : Facebook, My Space, Foursquare, etc.

Prof J.A. Barnes (1954) said that : “ social media is social structure that build by some individual or groups elements. It shows that in this site users connect with others because many kinds of reasons such as a same sociality life segment”. ([wibawaadiputra.wordpress.com](http://wibawaadiputra.wordpress.com)).

*Examples :*

➤ **Facebook**

Is a website that had a social networking theme, published 4th of February 2004 with Mark Zuckerberg as a founder.

➤ **Twitter**

Is social media that focused on blogging micro and RSS services to spread some information. It usually called “ Internet Short Message Services”. Twitter published on 15th of July 2006 with Jack Dorsey, Noah Glass, Evan Williams, and Biz Stone as founders.

➤ **LinkedIn**

Is social media that focused on professional relations. Built by Reid Hoffman and friends in a year 2003 As a site that played in a professional segment, it can make users to find some relations and working advertisement.

➤ **My Space**

Is a popular social networking site that offering social activities between friends, private profiles, blogs, groups, pictures, musics, and videos for adults teenagers in a whole world.

In a *The Media in your life an introduction to mass communication* book / Jean Folkerts, Stephen Lacy, Ann Larabee., 4th ed, said that “*While many social networking sites are available, MySpace has proven the most successful. According to Nielsen/NetRatings, MySpace had over 49 million visitors in August 2006, ranking seventh of the most popular websites. It was also the fastest growing : Between June 2005 and June 2006 it experienced a 183 percent increase in audience*”.

#### **5. Virtual Game Worlds**

Virtual world that included replica environment about 3D, user can see in custom avatar figure and having interaction with others like in a real life. Example : Online Game

#### **6. Virtual Social Worlds**

This is an application that simulated a real life using internet media. VSW is a site that can make user to interact in 3D platform using avatar figure and look like a real life. Example : Map : wikimapia, googleearth  
e-Commerce : ebay, alibaba

### **3 Methodology**

According to journal with title “Attracting user social media engagement : a study of three budget airlines facebook pages said that “*airline sector is not very well covered in terms of analyzing the application of social media, this is interesting because on one hand, airlines were probably the early adopters on internet-based technologies within their marketing mix*”. In This paper, researcher used many kinds of journal about Air Asia marketing communication activities using social media and based on related theories. This paper used descriptive qualitative method to describe marketing communication strategies in Air Asia Company using social media. In this literature review research, author compared between many kinds of related journal to looking for marketing communication activities using social media.

#### 4 Findings and Discussion

In this section we can said that based on journal with title “Attracting user social media engagement : a study of three budget airlines facebook, it said that social media cannot full covering marketing communication activities in airlines industries but different in AirAsia airlines, their using Facebook account, more than one Facebook account to doing marketing activities. *“Facebook wallpost which were publishes from 15 June to 31 July 2012 were captured an excel worksheet said that this is the most popular wall posts with a dramatic increase in “people talking about this”.* The data focused on the four steps to engage customers : users connection, users engagement, influential power, and integration function.

Resulted from this research are colaboration between four steps to engage customers and based on Treadway and Smith theory. They suggest five broad themes that they think will define social media and marketing for years to come:

##### **1. The need to share information.**

Air Asia company is a big airways company and it had a familiar tagline such as “Everyone can Fly”. From it tagline we can said that Air sia company is an airways company who want to sell something with lowest cost, so many peoples in many kind of segment can join with Air Asia airways to get their way to going home to their village. According to that reasons, this company think that they must share a lots of informations that related with many kinds of promotions things that happened in Air Asia promo programs, and how do they will do that way? In this technology era, we also know about social media era. Air Asia doing lots of promotion programs and spread all kinds of promotion program of Air Asia using a social media, they had official website, facebook, twitter to spread all promotion program messages. Why that they do it using social media? Because they think many peoples using social media right now, everyday they’re doing activities by using social media, at work, at spare time, at home, even at school. Its social media era, so Air Asia do the same way! Beside that, in official website of Air Asia, when customers booked a airflight, they will put their data on it, and the data will be kept safely landed in customers bank data in Air Asia. When they need to spread promotional program informations, especially to customers Air Asia they’ll spread all the ways, such as to their email or to their social media accounts that already landed safely in Air Asia customers bank data. Facebook fan page helped this airlines to promoted their message content, ini Southwest Airlines too, but different way that we found in Ryan Air, they’re using traditional tools even they didn’t have media social account for doing their promotion activities.

##### **2. Immediacy is here to stay.**

In this section, Air Asia used it to looking forward to all kinds of feedback from their customers. When customers choose Air Asia as their airways flight to going home to their hometown, we thought that they want an exelence services, right time on a right place services, it means delay minimalizer, friendly airways staff and fly attendant and many more. If they get it all from Air Asia and they will say to their friends, families and coleagues, and it will build some positive word of mouth spreading and actually will be a great feedback from Air Asia company, it will make and get a new customers like multilevel marketing do. But, if customers get an opposite with what they hoping from Air Asia so it will make something terrible and negative for Air Asia company, because customers will spreading negative messages with word of mouth activities and it one of effective way of communication and can make some companies collapse. In their Facebook fanpage all customers feel free to say something positive or negative about Air Asia’s services, if feedback from customers positive there will be some advantages for this Airlines using word of mouth activities, otherwise if there’re negative feedback spread in the Facebook wall there will be disadvantages word of mouth from customers to Air Asia potential customers.

##### **3. Everyone is a source of information, and everyone is biased.**

According from this section we can said that every customers of Air Asia company are a source of information, they can be an angel customers or the devil one’s depend on what they’d get from this company. Many peoples as Air Asia customers had many kinds of social media account, so when they feel happy with all services elements from Air Asia they’ll spread it out and it will become advantages for Air Asia off course but when it goes in opposite ways it will

become something terrible for Air Asia. In This research author found 2 kinds of feedback from customers, whiches positive and negative one's. In Facebook Air Asia fanpage every customers is being a source information, neither is good or bad information.

#### 4. Noise level

Noise level is something that companies must be able to make it none from marketing communication strategies. Noise level can make something negative from some companies. In Air Asia company, noise level is related to negative customers feedback. When customers spread negative messages with their own world it means their own message, writing down in mass media, in their social media accounts, in their timelines, in their messenger status, many kinds of potentialy customers Air Asia can read it and spontanious can make they go away from potential customers become unpotential customers, and in this section we can called noise level. If noise level happened in some Facebook Fanpage Air Asia, this airlines must find some way to re-building new image from customers, with many kinds of things, such as : using Marketing Public Relations activities internal and external, Corporate Social Responsibility (CSR), etc.

#### 5. Melding of worlds.

In this social media part, everyone, everypeoples can join with social media accounts of Air Asia customers (inconditinally) especially Facebook Fanpage account.. When peoples do not know eachother but they linked by something, they can saw all of kinds of timelines, messages, repost and anykinds of messages that related with Air Asia customers satisfaction. For example : "A" is Air Asia customer and she's feel satisfied with Air Asia services and she put some satisfaction messages in her all social media account. When "B" such as potential customers of Air Asia saw messages from A's social media account and "B" choose Air Asia such as her airways to go home, so it such a advantage melding of worlds for Air Asia, and opposite of that case if "A" put something negative spreading messages in her social media account and "B" saw that messages, and "B" did'nt choose Air Asia for airways to get her going back home, so it such a disadvantage melding of worlds for Air Asia. We can said that in this part, communication chain network will be build in Air Asia Facebook wall, there so many peoples in different countries will make some communication chain network that will build some word of mouth either bad or good one.

Based on this literature research in some journal, we can compare with 3 (three) lowest cost Air Lines (Air Asia, Southwest Airlines and Ryan Airlines), Air Asia is one of company that already totally used social media as their marketing communication strategies. Based on 5 (five) elements Thedway and Smith theories, it said that Air Asia had messages from positively customers satisfaction and negatively from customers unsatisfied. So, this company mostly to be aware to do their services to their customers, because we did'nt know how many Air Asia's customers whiches use social media account to spread their satisfaction message about Air Asia services. Air Asia using Facebook and Twitter such their tools four steps to engage customers : users connection, users engagement, influential power, and integration function.

### 5 Conclusions

Conclusion of this research are to anticipating either bad or good satisification from Air Asia customers, Air Asia company must be able to give some best services exellence to those who choosing Air Asia such a airways to them to get ticket for going home. So, when Air Asia can minimalize unsatisfaction customers, Air Asia no worries about customers who will spreading negatively messages in their social media account. Beside that, Air Asia company make some evaluation program whiches looking forward for their feedback, maybe Air Asia company invited them to some annual event that related to looking for feedback Air Asia customers and in that event Air Asia company invited loyal customers that had satisfied with Air Asia and customers that had bad experience when their flight with Air Asia. So, if both customers invited Air Asia can get some balance feedback (good or bad experiences customers) flight with Air Asia and it will become evaluation for that company to do something better day by day. To minimalize some negative feedback from customers, Air Asia can re-building image with doing some activities such as : External and Internal Marketing Public Relations, Corporate Social Responsibility program, and so on.

## **6. Limitations and Implications on Future Research**

For future research, i hope that next researcher in the similiar topic can using many more of literature journal and compare more indepth about lowest cost airlines, not just only 3 (three) lowest cost Airlines in Asia but maybe in Europe or America.

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The ISCLO Conference 2014

## How To Improve IT People Capabilities in Stated Owned Enterprise (BUMN) Through IT Forum (FORTI)

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### Abstract

FORTI BUMN is an Information Technology Forum for State Owned Enterprises (IT Forum for SOEs). This forum was established on 29 November 2010. The purpose of FORTI BUMN establishment are to provide a place for learning IT management and development knowledge for BUMN. Since 2010, FORTI BUMN has already had a lot of activities such as: IT Workshop, Member coordination meeting, IT Governance award and publishing IT magazine.

Based on a simple survey held by FORTI among IT people in BUMNs on March 2014, it was found that the main handicap for IT development in BUMNs was IT people. Hence, IT competence standard is very important for BUMN so they can standardize and utilize their IT employee. With IT people standards defining by FORTI, the BUMN enterprise can develop IT Master Plan that is requested by government's regulation and help to improve their enterprise strategy and objectives.

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**Keywords:** State Owned Enterprise, BUMN, IT Forum, FORTI

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### 1. Introduction

Indonesia BUMN (*Badan Usaha Milik Negara*) or SOE (State Owned Enterprise) based on Republic Indonesia law no 19 of 2003 is an enterprise which fully or majority owned by Indonesia government. BUMN can be a non-profit enterprise that has objective to provide products or services for public. Since 2001, BUMN ministries that lead by Minister of BUMN, coordinate all BUMN managements and strategies. BUMN have two objectives as follows:

- Social objective: focus on public benefit through non-profit business
- Commercial objective: focus on profit through commercial business for government income

FORTI BUMN is an Information Technology Forum for State Owned Enterprises (IT Forum for SOEs). This forum was established on 29 November 2010. The purposes of FORTI BUMN establishment are:

- Providing a place to develop IT capabilities including human resource and IT strategy for BUMN.
- Aligning and integrating IT at BUMN with its business strategy.
- Providing IT strategic thinking and policies, in the form of advice, assessment, feedback, opinions and recommendations to the Ministry of BUMN and FORTI Members.

Based on a simple survey held by FORTI among IT people in BUMNs on 28 March 2014, it was found that the main handicap for IT development in BUMNs was IT people as shown below :

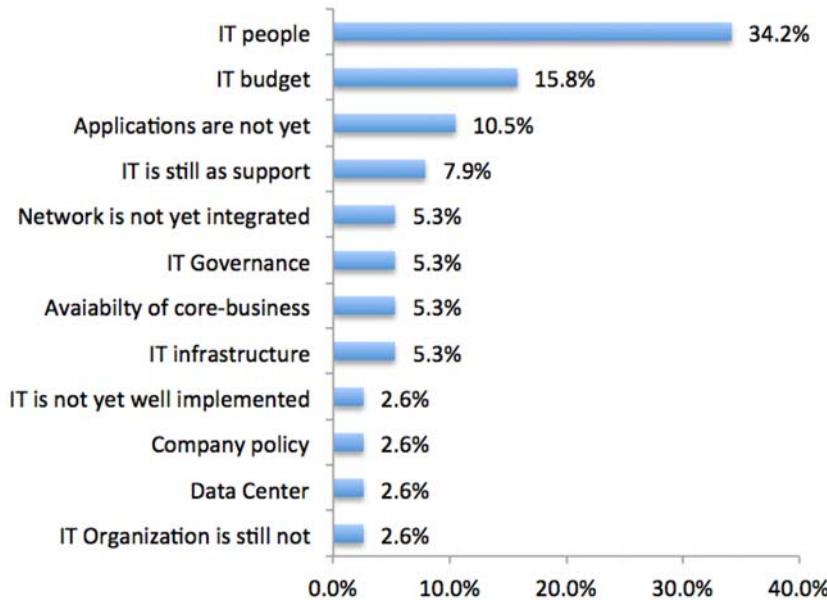


Fig. 1. Handicaps of IT development in BUMNs

Hence, one of working program from FORTI BUMN is developing competency database for IT managements and staffs. The main purpose of this program is to synergize the Human Resources (HR) capabilities among BUMNs. In many State Owned Enterprises in Indonesia, there are wide ranges IT people competence such as programmers, system analysts, web designers, data center specialists, ERP specialists, etc. that need to be standardized to achieve a better results.

## 2. Approach and Model

### 2.1. General Approach

The general approach model for improving IT people capabilities through FORTI can be describe as follows:

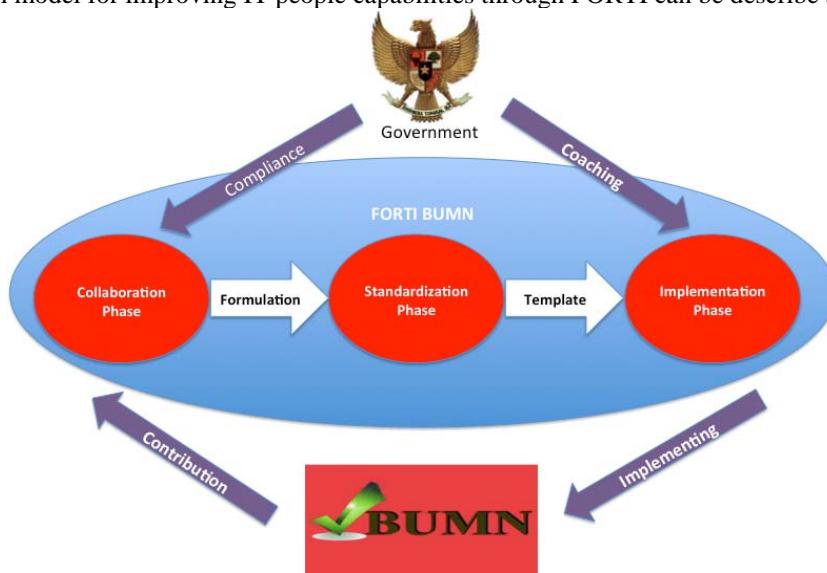


Fig. 2. General approach model for improving IT Capabilities through FORTI

Based on the model on Fig 1, FORTI BUMN needs some supports from the Government as the regulator and the enterprises as a user. The collaboration between the three parties will give better output for improving the capability of the IT people of State Owned Enterprises.

## 2.2. Collaboration Phase

Collaboration is a mutually beneficial relationship between parties or different organizations that work toward common goals by sharing responsibility, authority and accountability for achieving results. In Indonesia the collaboration is reflected on *Gotong Royong* or mutual aid tradition that is focused on a common result without thinking about personal interest.

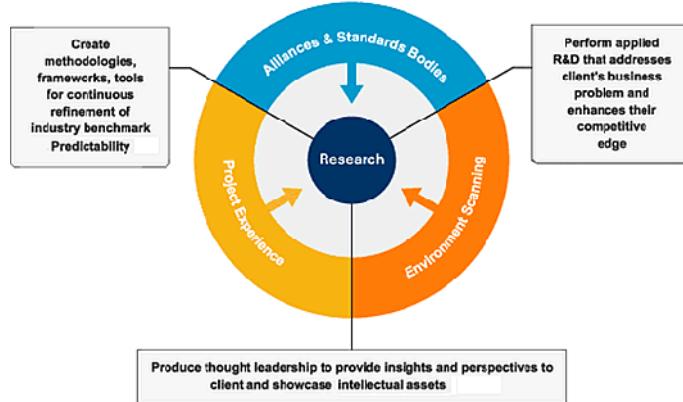


Fig. 3. Collaborative Model [1]

The collaboration for formulating the standard of IT people's capabilities is adopting the collaborative model defined at on Fig. 3 and that can be detailed as follows:

- The role of alliances & standardization bodies is played by the Government using their responsibilities as the regulator. The government defines IT people capabilities compliance through an Indonesian law as a main reference for FORTI.
- Environment scanning role is played by all BUMN as the FORTI member. They contribute by sharing their ideas, experiences and problems that specifically happen in their companies related to the IT people capabilities.
- Project experience role is played by BUMN member that has major task in IT business such as Telkomsigma. They shared their experience on developing IT people capabilities and how to utilize the capabilities and capitalize them to their company business.

## 2.3. Standardization Phase

The output from the collaboration phase will be formulated by FORTI and used as an input at the standardization phase. Standardization is the process of developing and implementing technical standards. It is usually a formal document that establishes uniform engineering or technical criteria, methods, processes and practices. Standardization can help to maximize compatibility, interoperability, safety, repeatability, or quality, in addition; it facilitates the commoditization of formerly custom processes as well.

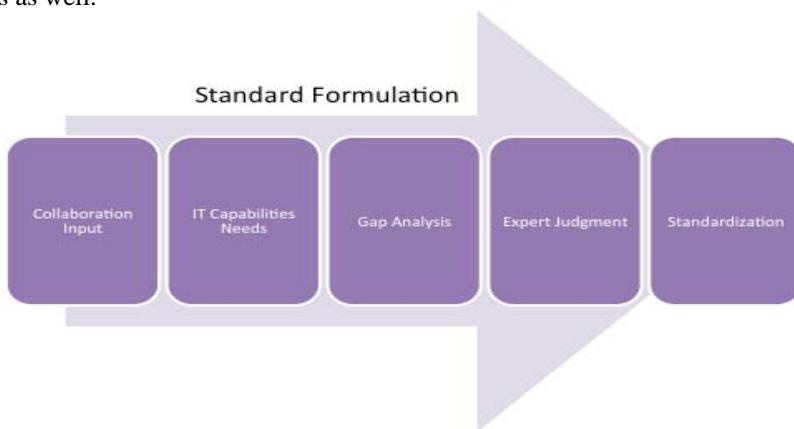


Fig. 4. Standardization Phase

The standard formulation process as described at Fig. 4 can be detailed as follows:

- Collaboration Input is the stage when all the relevance information gathered at collaboration phase are filtered and formulated by FORTI Team.
- IT Capabilities Needs is the stage when FORTI Team gathered information of real IT capability that needed for running IT at the enterprise level based on professional reference.
- Gap Analysis is the stage when FORTI Team compares the actual conditions with potential conditions. At this stage the data from collaboration input will be compared with the IT industry condition.
- Expert Judgment is the stage when expert forum from FORTI member take a decision which standard criteria will be adopted by FORTI.
- Standardization is the stage when FORTI members formalize the decision that already decided by FORTI expert and distributed to all FORTI member.

Output from standardization phase is define as “HR Core Competence for IT” and divided into seventeen groups capabilities as follows:

Table 1. HR Core Competence for IT [2]

No	Core Competence	Definition	Competence Needed
1	Computer Operator	Responsible for operating basic standard application	Basic PC knowledge, office application, internet use
2	Computer Programmer	Responsible for developing certain application using specific programming language	General programming, data base programming, web/internet programming, multimedia programming
3	IT Operation Management	Responsible for daily operation of IT equipment	Hardware knowledge, various PC OS, various PC application over various communication device
4	Computer Scientist	Responsible for researching new product innovation, designing new technology and leveraging existing technology	Algorithm and programming, data structure design and basis data theory, numeric analysis, computer graphic and computer vision capability
5	Business Analyst	Responsible for analyzing business and organization needs, designing appropriate system, assessing business model and IT integration	Company business knowledge, communication skill, project management, general IT and business model development
6	System Analyst	Responsible for analyzing IT problems, develop action plan, recommending hardware and software for computing, coordinating development for business needs	Programming, OS, computer hardware, good communication skill, technical specification writing skill, project management
7	Database Management	Responsible for storing, organizing, managing access level and securing database	Administration capability, various data base system, various OS and back up mechanism
8	Network and System Engineer	Responsible for daily operation of communication system, computer system and network	Various network and communication software, various network and communication hardware, OS, electrical concept
9	Network and System Architect	Responsible for designing efficient and effective network, communication and computer system	Network design concept, virtualization, cloud computing, unified communication
10	Web Designer	Responsible for visual web design	Visual graphic concept, animation tools (flash), programming script (JavaScript, php, asp)
11	Business Intelligence & Analytics Specialist	Responsible for providing information and data analytics for decision maker	Data warehouse concept, various ETL application (extract, transfer, loading) dashboard and analytics application, company business knowledge
12	Data Center Specialist	Responsible for managing data center including various resources: power, cooling system, fire suppression, server, network and storage, data backup maintenance and access management	Data center design including power, cooling system, fire suppression, cabling. Server, network equipment, and storage equipment capabilities. Backup and recovery mechanism. Capacity and configuration management
13	ERP Specialist	Responsible for implementing and daily maintenance the Enterprise Resource Planning	ERP data structure, ERP function process flow
14	IT Architecture Specialist	Responsible for integrating business need with IT, developing business architecture, infrastructure architecture, application architecture and information	IT Architecture Body of Knowledge (ITABOK), knowing various architecture of leading product technology (IBM, Microsoft, cisco,

No	Core Competence	Definition	Competence Needed
15	IT Strategy and Planning Specialist	Responsible for matching business unit needs with available technology, formulating technology direction, system architect and implementation strategy	IT governance framework, IT finance framework, latest information technology
16	IT Security & Risk Management Specialist	Responsible for securing company data and information from unauthorized parties and comply with regulation	IT security framework, IT risk management framework
17	IT Quality Assurance Specialist	Responsible for checking, testing and measuring suitability technology with design and standard. Developing testing scenario to ensure technology quality performance	Testing principal and methodology based on agreed design, standard and scenario. Understanding various OS, application and data base

#### 2.4. Implementation Phase

After having been formalized by FORTI, the HR core competence for IT would become a reference for all BUMNs and should be implemented to IT personnel from each enterprise. There are 142 (one hundred and forty two) state owned enterprises in Indonesia divided into 13 sectors with hundreds thousands of employees.

Table 2 BUMN Sectors

No	BUMN Sectors	Number of Company
1	Water Supply, Waste Management and Recycling Sectors	2
2	Agriculture, Forestry, Fisheries Sectors	25
3	Wholesale and Retail Trade Sectors	4
4	Mining and Excavating Sectors	5
5	Manufacturing Sectors	31
6	Professional, Scientific and Technical Services Sectors	10
7	Gas, Steam and Cold Air Sectors	2
8	Information and Telecommunication Sectors	3
9	Transportation and Storage Sectors	24
10	Construction Sectors	11
11	Financial Services and Insurance Sectors	22
12	Accommodation, Food and Beverages Sectors	1
13	Real Estate Sectors	2

The government through FORTI will under supervise the implementation process for BUMN employees with the assistance from BUMN whose main business is on IT sectors. The process includes the assessment, training, coaching and certification process for IT personnel at each enterprise.

Today's FORTI organization structure is representing of government and BUMN with structure as follows:

Table 3 FORTI Organization

Position	Name	Company
Chairman	Imam Bustomi	Ministry of BUMN
Vice Chairman	Judi Achmadi	TelkomSigma
Secretary	F. Hasiholan Tamba	PPA
Treasury	Alip Priyono	Telkom Indonesia

### 3. Results of Approach

After implementing the IT people capabilities improvement approach, each BUMN will receive a significant benefit from improvement of their IT employee capabilities. They can utilize their IT employee to develop MPTI (Information Technology Master Plan) for the company. Based on the Law no. PER-02/MBU/2013 [3] about Guideline of IT Development and Management for BUMN, each enterprise should have its own MPTI in 2015 at the latest.

MPTI is a long-term enterprise planning for three to five years and related to IT development at BUMN to support enterprise strategy and objectives. MPTI document should contain:

- Enterprise business context
- IT assessment

- Project portfolio
- IT roadmap
- IT governance

The stage for implementing MPTI can be described on following diagram:

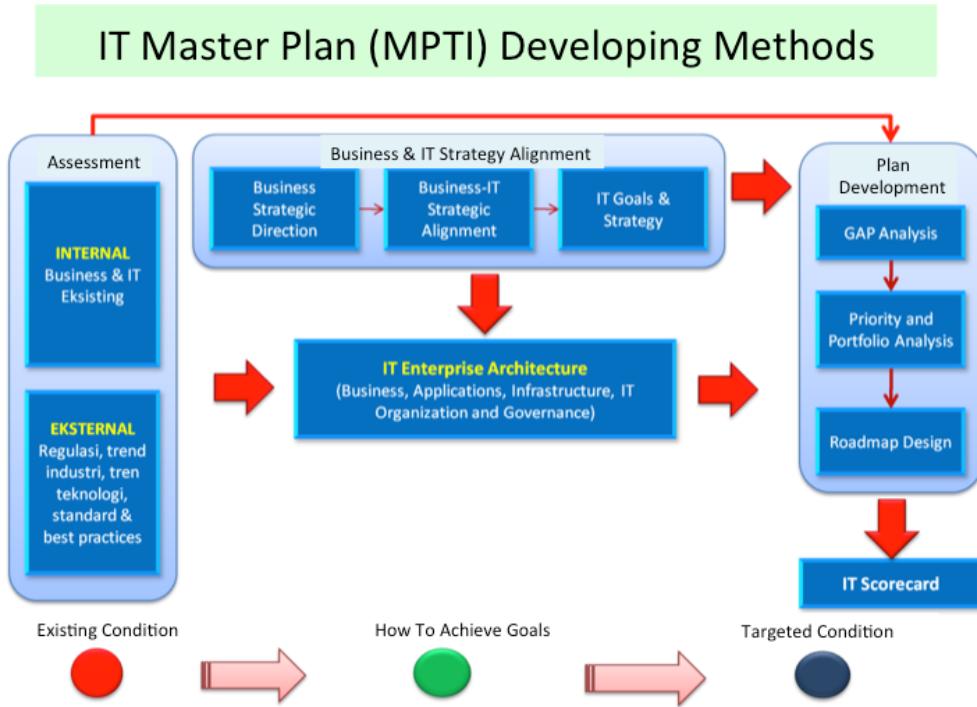


Fig. 5. MPTI Developing Methods

There are three stages for developing MPTI:

- Assessment Stage: company should assess all internal and external factors related to IT that can gives effect to corporate business.
- Business & IT Strategy Alignment Stage: company should align company IT strategy with company business strategic direction and then defining the IT goals.
- Plan Development Stage: company should formulate MPTI strategy based on gap analaysis between existing condition and future targeted condition.

MPTI will become reference for all IT person at BUMN to understand how importance IT strategy to support corporate business growth. MPTI development for each BUMN will differ based on scale of business for each company.

#### 4. Conclusion

This paper explained the IT people's capabilities improvement approach that is implemented by FORTI to help Indonesian state owned enterprises to upgrade and improve their IT resources. FORTI approach is based on the collaboration within BUMN members, and each member contributes his/her experiences and capabilities to help other members to achieve the FORTI standards.

IT resource standardization will give benefits to BUMN for improving the enterprise's IT strategy and finally can support their enterprise strategy and objectives for its business growth. From legal point of view, IT people capability improvement will help enterprise to comply with the government's regulation for developing the MPTI.

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# Impact of Organizational Culture on The Information Security Triad

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## Abstract

In many organizations, the implementation of information security management faces some barriers. Some of them are related to the employees who are resistant and lack of awareness to do the information of security policies and procedures. Those things can be influenced by their organizational culture. Therefore, this paper explores the impact of organizational culture on three aspects of information security, i.e. confidentiality, integrity, and availability. In this paper, the characteristics of organizational culture consist of four constructions; cooperativeness, innovativeness, consistency, and effectiveness. This study used quantitative method with multiple linear regression analysis. Data were taken using questionnaire to all employees of a telecommunication provider's customer service office. It showed that all dimension of organizational culture significantly had effects on the implementation of information security triad simultaneously. Partially, the organizational culture had significant impact upon the confidentiality and integrity, but not on the availability.

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**Keyword:** Organizational Culture, Confidentiality, Integrity, Availability, Information Security

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## 1. Introduction

Information as one of important assets of an organization needs to be protected like any other assets. Information security is intended to protect not only organizations' valuable information, but also organization's hardware and software to process the information [1]. Information security management (ISM) is more than computer security. ISM also includes policies, process, procedures, organization structure, hardware and software function, and needs to be implemented [2]. Therefore, discussions about ISM do not merely examine the technical things of security.

Many factors can affect the implementation of information security in an organization. A research on several organizations in Taiwan found the relation between organizational culture and information security management. It showed that organizations that had flexibility cultures would have more inhibitors in implementing their information security management [3]. Some organizational factors also had significant impact on the effectiveness of ISM implementation, including IT competence of business managers, environment uncertainty, industry type, and organization size [4]. Another research also revealed that information security in some global financial service institutions also had significant correlations with some dimensions of national culture [5].

In this paper, the researchers discuss about the relationship of ISM with the organizational culture. It is similar to a previous research done by Chang & Lin [3]. However, this research took different organization from different country as the source of case study, specifically in Indonesia. Organizational culture consists of some basic patterns that are accepted and adopted in an organization. It underlies the way of thinking, feeling, reacting, and acting of its members in resolving the problem [6] [7] [8]. Many researches have been done to learn the organizational culture. A study of some organizations in Singapore showed that the cultural strength of organizations was related to the organizational performance that was measured by some financial indicators [9]. Organizational culture also has influence to some processes of information system (IS) development and implementation in organization [10]. Information security management is related to the use of information in an organization along with the process using information system. Therefore, this study needs to explore more about the relationship between organizational culture and ISM.

The organizational culture can be described in some different dimensions among the experts. Lee & Yu divided the organizational culture in their research into five dimensions, consisting of innovation, support, team, humanistic, and task [9]. Chang & Lin concluded four characteristics of organizational culture that was divided in two dimensions; i.e. internal or external orientation, and flexibility or control orientation, as below [3].

a. Cooperativeness

This culture is built based on internal-flexibility orientation characterized by cooperation among organization members, information sharing, trust, empowerment of employees, and team work.

b. Innovativeness

This culture is built based on external-flexibility orientation characterized by creativity, entrepreneurship, adaptability, and dynamism.

c. Consistency

This culture is built based on internal-control orientation characterized by order, rules and regulation, uniformity, and efficiency.

d. Effectiveness

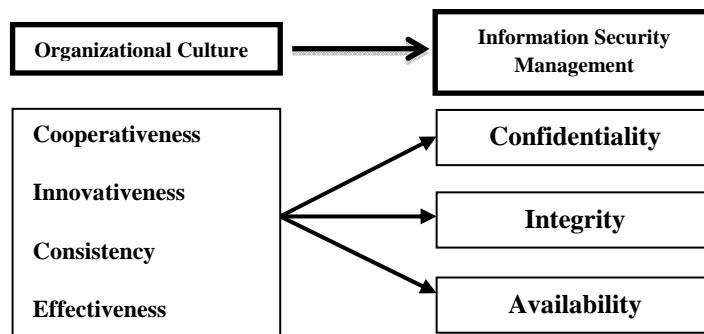
This culture is built based on external-control orientation characterized by competitiveness, goal achievement, production, effectiveness, and benefit-oriented measures.

Information security consists of three key aspects that are also called as information security triad, which comprises confidentiality, integrity, and availability [1]. Beside those aspects, information security can also include authenticity and non-repudiation [11]. Chang & Lin also added accountability to be another information security aspect [3]. Confidentiality of information means that an organization should protect its important, and its secret data and information from being accessed by unauthorized people. Availability aims to provide data and information for authorized people whenever needed by them. Integrity means that the data and information provided by organization should represent the real fact and condition.

According to a research on Indonesian smartphone users in 2013, around 80% of respondents had information security breach experiences, such as SMS Spam, Call Spam, data lost, malware, etc. [12]. It showed that consumers of telecommunication provider also became targets of security threats. One way to get access to customer's data is from customer service offices. The office gives many services to their customer like payment, complaint, or change of their service type. They have access to many data of the customers, such as personal data and billing. Therefore, information security in that office should be well considered, not only to protect company's data but also to protect their consumers'. If there is any security breach caused by lack of security in that office, it can damage the reputation of the telecommunication provider. This research tried to find out the impact of organizational culture to the implementation of information security management by taking a case study in a customer service office of a telecommunication provider in Indonesia.

## 2. Conceptual Framework

This research framework adapted Chang & Lin model [3] that investigated the relationship between the organizational culture, which is represented by its four characteristics, and information security management, which is represented by four dimensions. However, this research only inspected the relationship with three dimensions of information security called as information security triad. Not only researched the impact of organizational culture simultaneously to information security management, it also reviewed the relationship of the organizational culture dimension's partially to each aspect of the information security triad. The research framework can be shown by Figure 1 below.



**Figure 1. The Research Framework**

From the framework, it can be defined four hypothesis:

- H1. Organizational culture significantly affect the information security management
- H2. Organizational culture significantly affect the confidentiality aspect
- H3. Organizational culture significantly affect the integrity aspect
- H4. Organizational culture significantly affect the availability aspect

### 3. Research Methods and Data

This paper used a quantitative method to measure the effects of the organizational culture on the information security triad simultaneously and partially. It also used a descriptive approach to describe the organizational culture and information security management in the customer service office as a population to be observed. To prove four hypothesis above, the researchers used some variables that can be classified as independent variables and dependent variables. Independent variables are variables that can affect and explain other variables (dependent variable) [13]. In this research, independent variables were the organizational culture that consists of cooperativeness, innovativeness, consistency, and effectiveness. Meanwhile, dependent variables are variables that are affected, and can be explained by independent variables [13]. The information security management with its information security triad (confidentiality, integrity, availability) became dependent variables. Details of variable and sub variable of this research can be seen in Table 1.

Those indicators were used as basic for composing the questionnaire. For measurement, the researchers used likert scale to define attitudes, opinions, and perceptions of a person or a group of people about social phenomena [14]. Variance of answers in questionnaire had four range, i.e. very agree, agree, disagree, and very disagree. All members of the office, as the place for the case study, became the samples of this research (census technique) because total of the population was less than 30 persons.

**Table 1 Variable Operational**

Variable	Sub variable	Indicators	Number of Items
<b>Organizational Culture</b>	Cooperativeness	Cooperation, team work, trust, empowerment	5
	Innovativeness	Dynamism and creativity	5
	Consistency	Order, rules and regulation, efficiency	6
	Effectiveness	Goal achievement, effectiveness	4
<b>Information Security Management</b>	Confidentiality	Access right, secrecy, safety	5
	Integrity	Back-up, database maintenance	3
	Availability	Availability, control, resistance	2
<b>TOTAL ITEMS IN QUESTIONNAIRE</b>			<b>30</b>

Content validity describes the fitness of research instrument with what will be measured [13]. All items in the questionnaire had passed the validity test using SPSS 21 with the significant rate of 10% ( $r = 0.317$ ). The questionnaire had also passed the reliability test that showed its consistency in measuring the same symptoms [15]. For this research, it would pass the test if Alpha Cronbach coefficient is more than 0.6. Using SPSS 21, this instrument had Alpha Cronbach coefficient of 0.88. It means that this questionnaire is reliable to be used for data collection.

This research used two approaches in data analysis: a descriptive approach, and a statistical approach. A descriptive approach is used to describe respondents' characteristics, the organizational culture, and the information security management implementation in the customer service office. Meanwhile, a statistical approach uses multiple linier regression

analysis to measure the impact of the organizational culture on the information security management. The approaches were used because the model in this research had more than one independent variable, including of cooperativeness (X1), innovativeness (X2), consistency (X3), and effectiveness (X4). It can be shown in a mathematical model below.

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + e \quad (1)$$

- Y = Information security management showed by Confidentiality, Integrity, Availability  
 a = *constanta*  
 b<sub>1</sub> = Regression coefficient for cooperativeness  
 b<sub>2</sub> = Regression coefficient for innovativeness  
 b<sub>3</sub> = Regression coefficient for consistency  
 b<sub>4</sub> = Regression coefficient for effectiveness  
 X<sub>1</sub> = Cooperativeness variable  
 X<sub>2</sub> = Innovativeness variable  
 X<sub>3</sub> = Consistency variable  
 X<sub>4</sub> = Effectiveness variable  
 e = *error disturbances*

In this research, constanta will not be analysed because all variables use the same scale for the measurement (ordinal scale).

#### 4. Results and Discussion

The number of employees of the customer service office was 28 people. All of them became the respondents of this research. The characteristics of the respondents were described by gender, education background, and age. By gender, 43% were men and 57% were women. By education background, 11% were graduated from senior high schools, 36% were graduated from diplomas, and the rest of them (54%) were from graduate and under graduate schools. By age, most of them (50%) were in range of 26-35 years old, 36% were under 26 years old, and 14% were more than 35 years old.

Each item of the questionnaire was grouped by its sub variables. To describe the answers from each sub variable, some categories based on continuum line were defined. Total of respondents were 28 people with the highest scale was four and the smallest scale was one. Then, it can be calculated that the highest cumulative score is 112 or 100%, and the smallest is 28 or 25% with the interval value for four group is 18.75%. Therefore we can get the category classification as shown in Table 2 below.

**Table 2. Category Classification**

No	Percentage	Category
1	25 % - 43.75 %	Very Weak
2	>43.75 % - 62.5 %	Weak
3	>62.5 % - 81.25 %	Strong
4	>81.25 % - 100 %	Very Strong

##### 4.1. Descriptive Analysis

For the first step, all answers from the questionnaire were recapitulated based on its sub variables. Then, each sub variable was accumulated to get its total average and the percentage to define its category as shown in Table 2 above. The recapitulation of calculation for each sub variable can be seen in Table 3. From the results we can conclude that among those four type of culture, none of them were dominant in that customer service office. All of them were in “strong” category. The biggest value refers to cooperativeness (80%), which means that the office strongly implemented cooperation, team work, trust, and empowerment manners in their daily operation. Meanwhile the smallest value refers to effectiveness (78.8%), although it's not too much different with other culture.

**Table 3. Descriptive for Each Sub variable**

<b>Variable</b>	<b>Sub variable</b>	<b>Total Average</b>	<b>%</b>	<b>Category</b>
Organizational Culture	Cooperativeness	89.6	80	Strong
	Innovativeness	89.2	79.6	Strong
	Consistency	89	79.46	Strong
	Effectiveness	88.3	78.8	Strong
Information Security Management	Confidentiality	91.8	82	Very Strong
	Integrity	87.7	78.3	Strong
	Availability	87.5	78.1	Strong

The information security management analysis gave different results. Confidentiality had the biggest value (82%) and “very strong” category. It means that the implementation of information security management in the customer service office strongly emphasized on the confidentiality aspect including management of access right, secrecy, and safety of information. The integrity and availability aspect of information were also strongly implemented by that office, although it was not as strong as the confidentiality aspect. It can be accepted, because generally the understanding of the most company about the information security is more dominant to protect confidential information of organization.

#### 4.2. Multiple Linear Regression Analysis

Before doing the regression analysis, some statistical assumption testing or well known as a classical assumption test need to be made. It consists of normality test, multicollinearity test, and heteroskedasticity test. The normality test was performed using Kolmogorov-Smirnov test to observe whether or not the residual data were normally distributed. The result of normality test for all dependent variables had value more than 0.05 that was the level of significance for passing the test. It means that all data were normally distributed. To test the multicollinearity in this model, it was referred to the value of Variance Inflation Factor (VIF) and the value of tolerance for each independent variable. The results showed that the tolerance value were more than 0.1 and the VIF value were less than 10. It means that there was not any multicollinearity between the independent variables in the regression model. And the last, the heteroskedasticity test used rank spearman test with a significance rate of 0.05. The result of that test showed that all variables had rank spearman values more than 0.05. It means there was not any heteroskedasticity for the model.

From the hypothesis, this paper would have four multiple linear regression models to explore the relationship between the organizational culture construction and the information security management in the customer service office. The model would be shown by the mathematical model number (2). H1 describes the regression model of the organizational culture on the information security management that can be seen in Table 4 below.

**Table 4. Multiple Linear Regression for H1**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
1	(Constant)	5.649	2.597	2.175	.040
	coop	1.101	.340	3.239	.004
	inno	.562	.391	1.436	.164
	conc	.187	.280	.667	.511
	effec	-.700	.489	-.339	.166

Source: calculation results of SPSS 21

It can be shown in the mathematical equation below.

$$Y = 5.649 + 1.101X_1 + 0.562X_2 + 0.187X_3 + (-0.700)X_4 + e \quad (2)$$

H2 describes the regression model of the organizational culture on the confidentiality aspect that can be seen in Table 5 below.

**Table 5. Multiple Linear Regression for H2**

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
1	(Constant)	-.357	1.391		-.257
	coop	.575	.182	.610	3.158
	inno	.286	.209	.315	1.364
	conc	.135	.150	.173	.897
	effec	-.322	.262	-.284	-1.228

Source: calculation results of SPSS 21

It can be shown in the mathematical equation below.

$$Y1 = -0.357 + 0.575X_1 + 0.286X_2 + 0.145X_3 + (-0.322) X4 + e \quad (3)$$

H3 describes the regression model of the organizational culture on the integrity aspect that can be seen in Table 6 below.

**Table 6. Multiple Linear Regression for H3**

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
1	(Constant)	-.054	.430		-.126
	coope	.361	.221	.349	1.634
	innov	.252	.233	.269	1.081
	consis	.309	.202	.314	1.529
	effecti	-.191	.222	-.204	-.861

Source: calculation results of SPSS 21

It can be shown in the mathematical equation below.

$$Y2 = -0.054 + 0.361X_1 + 0.252X_2 + 0.309X_3 + (-0.191) X4 + e \quad (4)$$

H4 describes the regression model of the organizational culture on the availability aspect that can be seen in Table 7 below.

**Table 7. Multiple Linear Regression for H4**

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
1	(Constant)	4.266	1.055		4.045
	coop	.300	.138	.590	2.173
	Inno	.139	.159	.284	.874
	Conc	-.101	.114	-.241	-.889
	Effec	-.175	.199	-.286	-.879

Source: calculation results of SPSS 21

It can be shown in the mathematical equation below.

$$Y3 = 4.266 + 0.300X_1 + 0.139X_2 + (-0.101)X_3 + (-0.175)X_4 + e \quad (5)$$

$F_{\text{Test}}$  was conducted to explain whether sub variables of organizational culture (i.e. cooperativeness, innovativeness, consistency, and effectiveness) as independent variables simultaneously affect each sub variables from dependent variables. The result of  $F_{\text{Test}}$  using SPSS21 is shown in Table 8 below.

**Table 8. Result of F-Test**

Regression Model	F counting for each model	F Table	P-value	Sig
Y	8.742	2.80	0.000	0.05
Confidentiality	9.434	2.80	0.000	0.05
Integrity	4.571	2.80	0.007	0.05
Availability	1.931	2.80	0.139	0.05

Source: calculation results of SPSS 21

Hypothesis is accepted if  $F_{\text{counting}} > F_{\text{table}}$  and p-value < Significance rate (5%). Therefore, for each model we will get result of hypothesis testing as below.

- a) The multiple linear regression model of the information security management variables (Y) had resulted  $F_{\text{counting}} = 8.742$  (more than 2.80) and p-value = 0.000 (less than 0.05). It can be concluded that H1 is accepted, which means that the organizational culture significantly affected the information security management implementation in that office.
- b) The multiple linear regression model of the confidentiality (Y1) had resulted  $F_{\text{counting}} = 9.434$  (more than 2.80) and p-value = 0.008 (less than 0.05). It can be concluded that H2 is accepted, which means that the organizational culture significantly affected the confidentiality aspect of the information security in that office.
- c) The multiple linear regression model of the integrity (Y2) had resulted  $F_{\text{counting}} = 4.509$  (more than 2.80) and p-value = 0.008 (less than 0.05). It can be concluded that H3 is accepted, which means that the organizational culture significantly affected the integrity aspect of the information security in that office.
- d) The multiple linear regression model of the availability (Y3) had resulted in  $F_{\text{counting}} = 1.931$  (less than 2.80) and p-value = 0.139 (more than 0.05). It can be concluded that H4 is rejected, which means that the organizational culture did not significantly affect the availability aspect of the information security in that office.

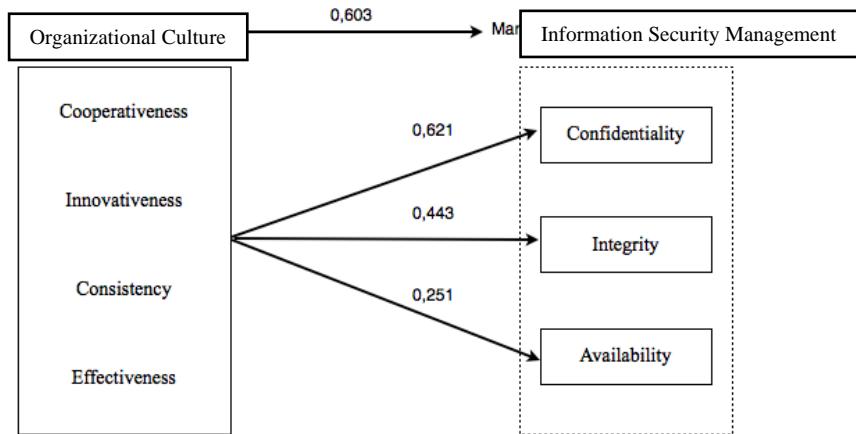
Determinant Coefficient ( $R^2$ ) measures how good all independent variables can explain variants of its dependent variables. The value of  $R^2$  from all regression model in this research can be showed in Table 9 below.

**Table 9. Determinant Correlation Coefficient Analysis ( $R^2$ )**

	Information Security Management	Confidentiality	Integrity	Availability
$R^2$	0.603	0.621	0.443	0.251

Source: calculation results of SPSS 21

From Table 9, it can be explained that the information security management in the customer service office can be affected by 60% of its organizational culture. The rest of it (40%) consists of other variables that are not included in this research. Partially, the culture also has contribution of 62% to affect the confidentiality, 44% to affect the integrity, and 25% to affect the availability of the information security in that office. However, based on the F-Test result, the contribution of 25% did not significantly affect the availability aspect. The multiple regression model of this research can also be described in Figure 2 below.



**Figure 2. The Multiple Linear Regression Model**

## 5. Conclusions

From the descriptive analysis above, we can conclude that the customer service office of the telecommunication provider, as a case study in this research, was not dominated by any of four types of those organizational culture. Nevertheless, the cooperativeness had the highest score among the other types, which meant that the cooperativeness was the strongest culture adapted in that office. Meanwhile, for the information security triad, the confidentiality was the most dominating aspect in the implementation of the information security management in the office. From the statistical analysis, all hypotheses in this research re accepted, except H4 that defined the relationship between the organizational culture and the availability as part of the information security management. It showed that only the availability aspect that was not significantly affected by the organizational culture, although simultaneously the culture significantly affected the information security management.

For further research, a similar study can be conducted in other customer service offices in the same telecommunication provider to compare the result whether or not it will give the same relationship. Furthermore, it can also be done in the customer service office of different providers to observe the organizational culture and its impact on the information security triad.

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# Learning Methodology: Sustainable City Development Strategy through Triple Helix Collaboration

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## Abstract

**Purpose:** This paper explored the role of business and government in developing a sustainable city through Indonesia Digital Society (INDISO) program implementation in TELKOM. INDISO is a TELKOM initiative to enhance and optimize IDN capacity and capability for society interest and prosperity as the result of learning from problems faced by society (problem-based learning). INDISO covers multi programs of digital inclusion in optimizing broadband infrastructure for government, public, and private sector and the programs are also done by accommodating local initiatives in line with implementation of digital city concept.

**Design/Methodology/Approach:** The research done by measuring and mapping the use and utilization of ICT was based on 4 aspects (initiative, leadership, usage and benefits) for 5 parties in each city/county (government, educational institutions, healthcare, SMEs and the public). The four aspects consisted of initiative: short and long term planning of the ICT of every city/county; leadership: implementation of the ICT planning of the city/county; usage: connectivity, ICT penetration, content application, usage of application/software, and behavior of the usage of the ICT by related parties; and results: benefits entrusted as by related parties. Survey was divided into two groups in each category of government and society overalls, namely city and county groups. Survey to local governments which consisted of 226 local governments including 70 cities and 156 counties was conducted based on questionnaire. Respondents from public sectors in 110 cities surveyed were elected through Computer Aided Telephony Interview (CATI). Overall society categories were judged by charging questionnaire survey coupled with CATI and conducted in four parties (educational institutions, healthcare institutions, private SMEs, and communities) in 110 cities and counties. The survey involved 19,000 respondents.

**Findings:** The development of ICT infrastructure; including the internet and applications had significant impact on the improvement of quality of life, on the improvement of science and economic growth, on the operations of government, and on the improvement of access to public information.

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**Keywords:** *ICT, sustainable city, problem-based learning, Indonesia Digital Network, Indonesia Digital Society, digital inclusion.*

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## 1. Challenges Faced by The Cities

A city can be defined as one form of the most complete society node, which spans from home, neighborhood up to district. It comprises people, infrastructure and process.

Currently, cities have become the focal point of economic strategies and development policies triggered by the global trend of increasing urbanization. Cities drive wealth creation more in the future (Hafedh Chourabi, 2012) [1]. Some cities like Jakarta and Seoul account for more than 50% of the country's GDP. This situation implies and provides opportunities for the cities to have high economic power in hub and spoke business model.

Some of major challenges faced by the cities are (Michael Batty, 2012) [2]:

- Unemployment that leads to increase crime, so that economic growth and building a resilience becomes a priority for the city authorities;

- The rise of urban populations that put pressure on housing and transport facilities;
- Incremental traffic, fuel usage and air pollution that warn the city to improve energy efficiency, reduce carbon emissions, and promote energy resilience;
- The way to maintain service levels for back office and front line using online service delivery by enabling new services and helping citizens to decide their activities by using information provided, e.g. providing real-time information on traffic to assist citizens in planning their journeys;

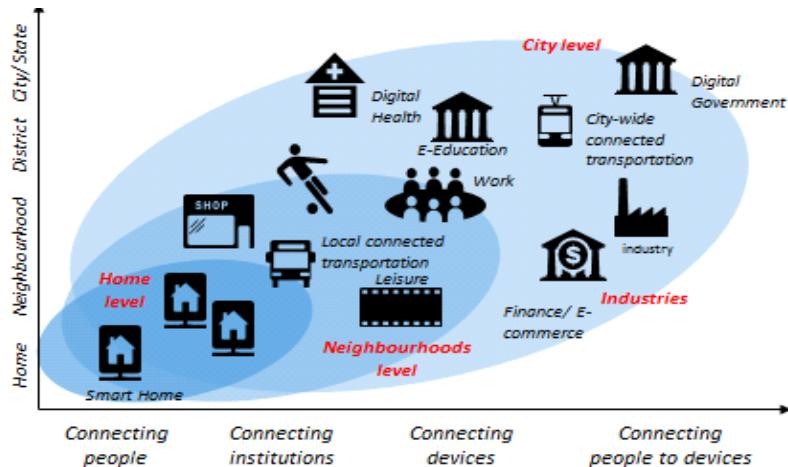


Fig. 1. Smarter, more Competitive Cities, IBM (2013) [3]

The complexity and the pace of change combined with the need for integrated solutions present a major challenge to local authorities that traditionally have developed responses in a “silo-ed” fashion.

For Indonesia, the challenge also comes from United Nations e-Government Survey 2012 [4] as a factor for digital city implementation. Indonesia is ranked at the position of 97, which is considered lagging behind other ASEAN countries except Myanmar, Timor Leste, and Cambodia.

## 2. Benchmark on Digital City Ecosystem Development

European Countries have responded to the city challenge by aiming strategies to boost EU economy through sustainable growth with five ambitious targets: the enhancement of employment, innovation, education, social inclusion, and climate/energy. To support the concept of “digital cities”, the European Commission has developed programs to support projects in European cities with ad hoc funding, credit lines, and even adoption of a bottom-up approach.

Some leading cities in the world have also applied various approaches in reaching the digital city status (Department for Business Innovation and Skills-UK, 2013) [5]. Some of initiatives are:

Table 1. Leading Digital City

	Hongkong	Rio de Janeiro	Stockholm	Boston
Overview	Significant digital city investments through ICT strategy	Public private Partnerships used to fund infrastructure projects and stimulate private sector growth	€70 Mn investment in digital city technology projects across city departments to support novel projects	Collaboration with innovative companies, SMEs and city departments to improve city services
Investment	Focuses on economic development through facilitating the digital economy, which aim to create world-class e-governance services	Creates center of operations supports for city's response to natural disasters, and facilitate cross-disciplinary working across agencies	Uses public databases and individual departments, and creates digital city proposals, which are funded based on a cost-benefit analysis	Adopts a top-down and bottom-up models for innovation, with particular attention on good communication internally and with other cities
Select Project	EIM E-government Gov Wifi Open Data	Center of Operations Open Data	E-government Stokab Fibre Network Kista Science City	Participatory Urbanism Clicks and Bricks 21 <sup>st</sup> century learning
Impact	Implements various digitization initiatives for government processes and application	Facilitates economy by providing private sector with information about the city	Recoups returns from cost-reduction through efficiency that the project is created	Highly engages in interactions within the communities both inside and outside the organization

### 3. Some Concepts of Digital City

Frost & Sullivan (2012) have defined digital cities as cities built on “intelligent” technology solutions that lead to the adoption of at least 5 out of the 8 digital parameters i.e.: Smart Energy, Smart Building, Smart Citizen, Smart Technology, Smart Healthcare, Smart Mobility, Smart Infrastructure and Smart Governance [6].

On the other hand, a sustainable city is defined as the city that is built on eco-friendly bases. These may not necessarily include “intelligent” systems, but the city is built more on an energy-efficient or environment-friendly objectives.

Table 2. 8 digital parameters

Digital Energy	Digital Building	Digital Mobility
Digital Grid, Digital Meter, Intelligent Energy Storage	Automated Intelligent Building (HVAC, Lighting)	Low emission mobility, Mobility solution, multimodal transport
Digital Technology	Digital Infrastructure	Digital Healthcare
Broadband penetration over 80% Location based service	Sensor network Water & Waste Management	E-Health and M-Health Intelligent medical device
Digital Government	Digital Citizen	
e-Government e-education Disaster recovery solution	Green mobility Lifestyle choice	

Andrew Milroy in Frost & Sullivan (2014) also introduced some models. The first is the model of connected living, which described a world in which consumers use many different devices to experience integration of video, voice, and data services to provide access and ubiquitous connectivity anytime and anywhere [7][8]. The second is connected home that is defined as a residential environment embedded with computing and information technology which anticipates and responds to the needs of the occupants, working to promote their comfort, convenience, security and entertainment. The third is connected workplace that provides a model on how individuals work using enterprise communication, mobile working, and enterprise social networking. The last is connected city, providing typical connected work services and solutions for citizens in key segment (governance, banking, transportation, and education).

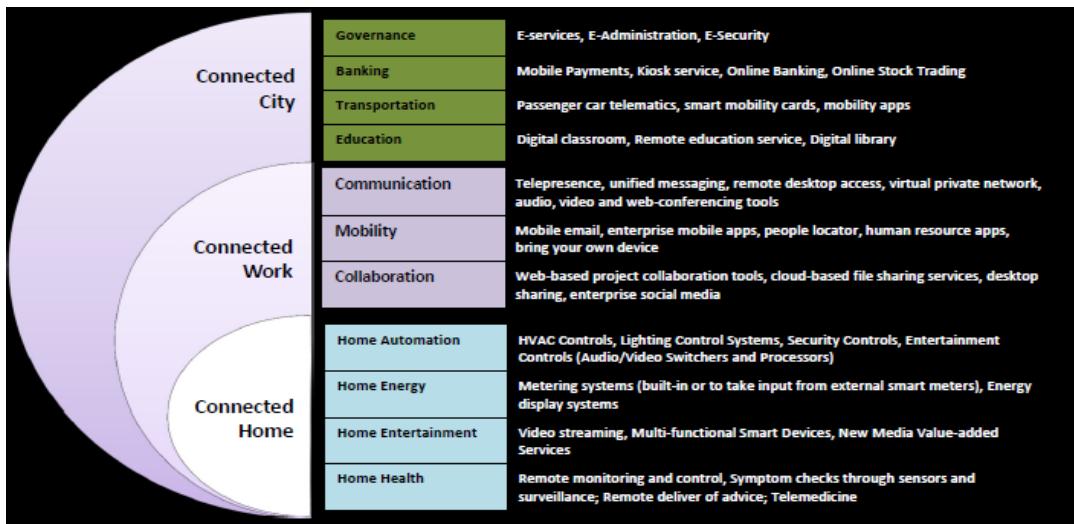


Fig. 2. Connected living model

There are five key aspects of digital city approaches, which are information driven (Ruthbea Yesner Clarke, 2013) [9]:

- Modern digital infrastructure, combined with a secure but open access approach to public re-useable data, which enables citizens to access the information when they need it;
- A recognition that service delivery is improved to become citizen centric: this involves placing the citizen's needs at the forefront, sharing management information to provide coherent service rather than operating in a multiplicity of service silos, and offering internet service delivery where possible compared with face to face mode;
- Intelligent and digital physical infrastructure (Internet of Things) enable service providers to use the full range of data both to manage service delivery on a daily basis and to inform strategic investment in the city/community (for example, gathering and analyzing data on whether public transport is adequate to cope with rush hour peaks);
- Openness to learn from others and experiment with new approaches and new business models; and
- Transparency of outcomes/performance, for example, the provision of city service dashboards to enable citizens to compare and challenge performance.

#### 4. The Role of Business & Government In Developing A Digital City

Learning from problems faced in the past, understanding about sustainable city development has come through long and intricate ways. Problems and potential of sustainable city development has become comprehensive discussions among stakeholders, including: academia, business, and government.

Problem-Based Learning (PBL) used to formulate solutions to develop a sustainable city needs a long time indeed; moreover, it habitually widens the focus of the discussions (Schmidt, Rotgans, Yew, 2011) [10]. PBL approach has advantages to formulate solutions; In addition, the approach can accommodate all points of view and opinion, and it also can grab an active role from all stakeholders whilst locking their commitment to solving problems (Hmelo-Silver, 2004) [11].

A digital city is a solution to achieve sustainable and balanced development of urban, which represents opportunities for different business and service providers. Moreover, there are high financial and cultural barriers to the development of the digital city. To overcome these barriers, business institutions and government need to encourage partnerships and develop a "framework" in order to align interests and encourage models of open collaboration between all stakeholders, including identification of appropriate financing structures to support such development.

The key attribute for a digital city -the most critical criterion- is leadership. Government has to have a clear and consistent vision of what the future city offers to its people with a commitment to deliver the necessary change. A vision is developed by consulting it with citizens and creating attractive environment for business across the city, so that the quality of life is enhanced by anticipating and meeting their needs. .

A digital City model should have a citizen centric approach, involving closer interaction between citizens and any service providers (AT. Kearney, 2014) [12].

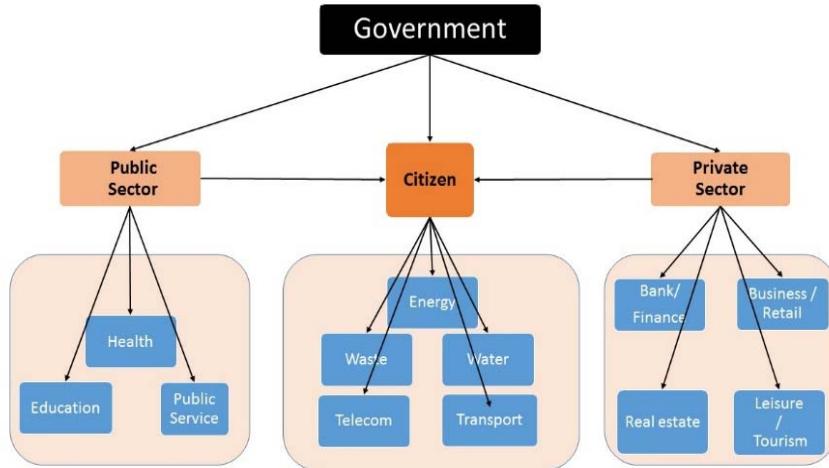


Fig. 3. Citizen Centric Approach

There are two kinds of stakeholders involved in the digital city development: direct and indirect stakeholders. Direct stakeholders consist of city authorities, business and citizens. City authorities have significant roles in planning and executing governance system to provide access to any facility and to promote the economic growth. On the other hand, indirect stakeholders such as technology and application providers and system integrator and service providers perform as enablers that create digital platform, infrastructure, interface, and operator.

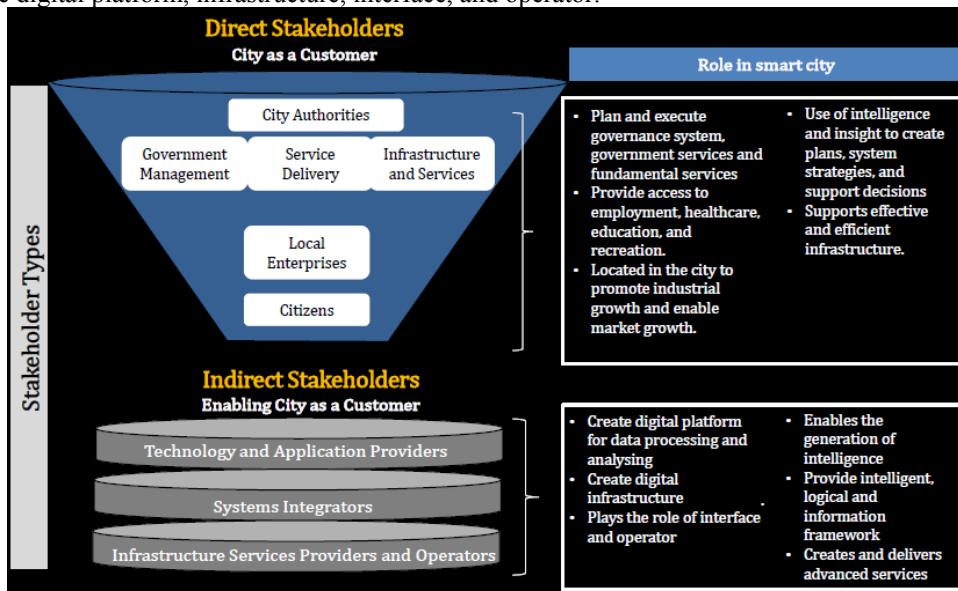


Fig. 4. Stakeholder Involvement

Using this approach, every stakeholder collaborates to deliver service to others according to its function and role. TELKOM has a unique approach called “ABG Triple Helix” to collaborate with academic institutions, business players and government parties in delivering the digital city business model. The role of academic institutions is in the development of human resources, entrepreneurship, science, innovation, and results of research prototype.

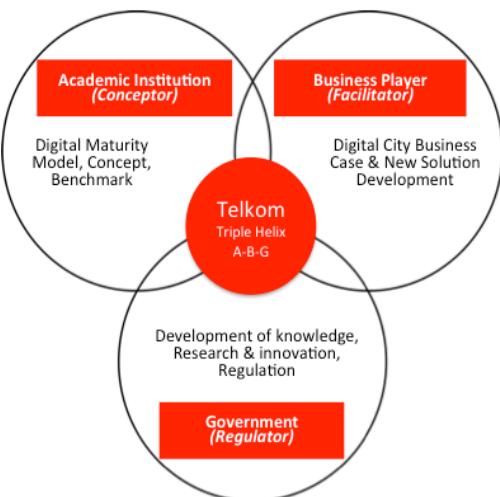


Fig. 5. ABG Triple Helix Model

Business/industry players have significant roles in creating ecosystems and sustainability of industrial development in cooperation with the university in the development of knowledge, new business, and industrial development through internal innovation capabilities, and national; and international partnerships.

The government has special roles in facilitating the development of knowledge through research and innovation incentives, the development of products, and the regulation in marketing of local products.

In addition, triple helix also involves community as users of the products yielded driving the development of knowledge and innovation, and creating ecosystem together with the government, university and industry. In this case, the community has a role as an accelerator.

## 5. INDONESIA DIGITAL NETWORK (IDN)

The Coordinating Ministry for Economic Affairs of Republic of Indonesia has set a development framework formulated in The Master plan Acceleration and Expansion for Indonesia Economic Development (MP3EI), whose goal is to create an independent , progressive, just and prosperous Indonesian society by encouraging the establishment of high economic growth; and a balanced, equitable, and sustainable country that will position the country to be the top ten countries in the world in 2025 and the world's sixth economies in 2050. As stated by President of Republic of Indonesia, Susilo Bambang Yudhoyono, the spirit behind MP3EI is breakthrough (not "business as usual") and the key words are acceleration and expansion.

Chairul Tanjung, the chairman of KEN, conveyed the Vision of Indonesia in 2030 called the Four Pillars for the Vision of Indonesia in 2030 namely: sustainable management of natural resources, encouraging Indonesia to become the Top 5 world economic power with per capita income reaching \$18,000/year, embodiment of more evenly the quality of modern life and to make at least 30 Indonesian companies included in Fortune 500. The economic development is going to be successful if there is collaboration among central government, local governments, state enterprises, and private enterprises (in the spirit of Indonesia Incorporated).

TELKOM as the sole nation's flag carrier in TIMES (Telecommunication, Information, Media, Edutainment and Services) industry in Indonesia has a passion to provide the best for Indonesia and to support the success of the government's efforts to encourage the MP3EI with infrastructure development across the Indonesian region by developing **Indonesia Digital Network (IDN)** as a masterpiece for the nation.

The availability of telecommunication infrastructure, especially broadband services infrastructure is one of economic development drivers. A World Bank study (Qiang & Rossotto, 2009) [13] showed that every increase of 10% in broadband penetration would result in economic improvement by 1.38%. Another research concluded broadband has contributed to the GDP growth along with the following parameters: 1 percentage point in broadband penetration can generate 0.0178 percentage points in GDP growth. Similarly, broadband contributes to the creation of jobs: 1 percentage point increase in the broadband penetration results in an increase of 0.18 points in the occupation rate (Raúl L. Katz, 2010) [14].

However, stakeholders have to realize, the success in broadband policies should be measured in terms of the wellbeing of society, and should not be in terms of the relative positions of raw subscription counts (T. Randolph Beard, 2009)[15].

The economic impact varies by region indicating that broadband deployment needs to be carefully coordinated with the economic development policies (training, firm relocation, etc.) to maximize the impact. Broadband policies are critical to maximize the economic impact of technology such as: national broadband plans, competition policies, demand stimulation, alignment of taxation with development and technology objectives (Raúl L. Katz, 2010) [16]. At a low level of broadband development, broadband access should be guaranteed in the most important points in urban areas (universities, public libraries, large companies). If possible, these points should be equipped with access to the fiber-optic infrastructure, in order to remain on par with the most advanced regions of the world (Martin Fornefeld, 2008)[17].

To fulfill the needs of connectivity solutions, TELKOM has taken an active role in the development of broadband through Indonesia Digital Network 2015. IDN is a dedication coming from TELKOM to build a better life and increase national productivity. IDN 2015 is a TELKOM vision to develop true end-to-end user broadband infrastructure development (user terminal, access, transport and services) that was born from a noble intention to provide a strong foundation for the advancement of the nation especially in terms of equitable access and the improvement of the quality and capacity of broadband infrastructure throughout Indonesia.

In the context of mega solution, TELKOM offers true broadband network for Indonesia on par with other nations (Australia with National Broadband Network, Malaysia with Multimedia Super Corridor).

The IDN 2015 program has three major components (TELKOM, 2013) [18], namely:

- **Id-Access** is an access network infrastructure development in the direction of the customer via a high speed broadband optical fiber networks and Wi-Fi. Through Id-Access, Telkom is committed to supporting MP3EI by providing broadband accesses to 15 million homes pass and one million Wi-Fi 33 accesses.
- **Id-Ring** transports infrastructure networks development towards IP- Based, and 75,000 km fiber optic backbone network infrastructure to create a convergent service across the country. The initiative of Id-Ring can be seen from the contribution of Telkom to the government's project "Palapa Ring" to connect fiber optic-based backbone networks to Eastern part of Indonesia (Papua and Maluku).
- **Id-Convergence** develops nodes service network infrastructure into an integrated, next Generation Network, NGN for multi-screen and multi-service. This is an innovation of Telkom to actualize the digital era in many sectors including Indonesia Digital Society (INDISO) and Indonesia Digital Ecosystem (INDICO). INDISO is a TELKOM initiative to provide communication services and access for communities such as government, entrepreneur, education and community through Indonesia Digital Government (INDIGOV), Indonesia Digital Entrepreneur (INDIPRENEUR), and Indonesia Digital School (INDISCHOOL) respectively. INDICO is a part of the ID Convergence which deploys the infrastructure through B2B ecosystem, managed application services, managed IT services, and value added services.

IDN is in line with the idea of MP3EI to create the acceleration of economic improvement, penetration of broadband services and educational foundations of the nation through excellent infrastructure. Furthermore it is expected to improve the image of Indonesia in the international eyes as the island nation that is capable of doing broadband penetration.

The results of ICT infrastructure development program become once again a major supporter for Telkom in running a business based on present and future needs.

IDN 2015 is expected to be one of the masterpieces of TELKOM. In addition to encourage innovation, improve labor productivity, and enhance regional competitiveness, the deployment of Palapa Ring Submarine Cable System also opens a variety of possibilities to accelerate development in eastern part of Indonesia.

The backbone network is expected to increase the number of access to broadband networks and to provide more efficient communication for public sector and government, including military, police, meteorology, and crisis prevention (John E. Goeres, 2013)[19]. The existence of Palapa Ring Submarine Cable System can also reduce the cost of communication as well as encourage the use of broadband access.

The benefits of the deployment of information and communication technology infrastructure in eastern Indonesia among others are:

- Improving the welfare of the community, including eradication of poverty and inequality, and improving the quality of life in the community.
- Filling the gap of the digital divide between urban and rural areas, "the haves" and "the have nots ", the western and eastern regions of Indonesia.
- Bridging politics and culture gap, and increasing harmony among people.

## 6. INDONESIA DIGITAL SOCIETY (INDISO)

In the Id-Convergence program, TELKOM provides convergence services that utilize the capability of network for entire stakeholders in the nation.

To accelerate the Id-Convergence, it is necessary to embrace a differentiated go-to-market to offer a broader portfolio of solutions and products, and to facilitate the adoption of new business models of funding.

The objectives of INDISO can be described in mega thinking scale to support MP3EI implementation by enhancing value of national Industries and supporting better quality of life. In macro scope, INDISO is expected to enhance public services, to enable agility & productivity in business, and to improve livable city for people.

With INDISO, TELKOM plays a significant role in guiding the public administration, businesses and citizens into the path of digitization, efficiency, and development of the urban context.

TELKOM focuses on certain specific areas of digital city applications (TELKOM, 2014) [20]:

Table 3. Area of Digital City

Sectors	Program
Government	<b>INDIGOV</b> Provides broadband infrastructure and cloud-based solutions in the government for the improvement of public services. In 2013 it has already surveyed 2500 of local government institution sites from 404 Cities and delivering 12.887 Gbps bandwidth connectivity.
Public	<b>INDIHEALTH</b> Provides broadband infrastructure and cloud-based solutions for healthcare institutions to improve services. <b>INDISCHOOL</b> Provides wifi internet services for students at 100K schools throughout Indonesia <b>INDICAMPUS</b> Provides broadband facilities at universities throughout Indonesia.
Private	<b>INDIFINANCE</b> Provides convenience for the community in microfinance transactions <b>INDIPRENEUR</b> Provides a digital platform for 100K Indonesian SMEs to be able do business online <b>INDITOURISM</b> Provides broadband infrastructure and cloud-based solutions for institutions to increase the potential of Indonesian tourism

## 7. INDONESIA DIGITAL SOCIETY AWARD (IDSA)

Telkom as the biggest TIMES service provider and the prime mover of ICT implementation in the country is trying to become a business institution that stands at the forefront of digital creative development.

Information and Communication Technology (ICT) can facilitate the involvement of citizens to be more self-responsible. In contrast, it can also become a barrier if they cannot easily and effectively use it to meet their needs (M. Ianculescu, 2011) [21].

A lack of understanding of the causal factors leads digital engagement to reduce social exclusion. This study has confirmed that high quality access, digital skills and a positive disposition towards ICTs facilitate disadvantaged basic engagement with ICTs among groups.

However, it is not possible to use the survey data available for this study to demonstrate that digital engagement subsequently improves an individual's social situation. For evidence of this evaluation studies of specific interventions are required.

One of the initiatives is to support TELKOM together with the Ministry of Communications and Information Technology and The Ministry of Internal Affairs to become co-originators of Indonesia Digital Society Award (IDSA). IDSA is a prestigious award for cities /counties regarding the implementation and development of ICT in government, educational institutions, health, Small-Medium Enterprises (SMEs) and the public service.

Digital inclusion cannot be separated from economic and social inclusion, and it will become a major factor in assisting (or losing) social and economic justice (Don Perlut, 2011) [22]. IDSA can be utilized as a vehicle to push digital inclusion, and at the end it can improve welfare in Indonesia.

Bradbrook and Fisher (2004) advocate the '5 Cs' of digital inclusion: connectivity (access), capability (skill), content, confidence (self-efficacy) and continuity [23]. The latter, continuity not only is the technology widely available. It became a

part of such an ingrained part of everyday life that is more difficult to see the ‘digital world’ separately from the ‘real world’.

IDSA initiative refers to what has been done by Malaysian government. Since fourteen years ago, Malaysia has been doing a similar event with IDSA, not only at national level but also at international level. In 2001 and 2002, Malaysia was the host and originator of the APICTA (Asia Pacific Information and Communications Technology Award), a prestigious annual event for assessment and use of information and communication technology development among countries in Asia Pacific. This activity continues to take place every year. Now, Malaysia has organized more specific annual event such as the Cyber Security Malaysia Awards, Conference and Exhibition (CSM-ACE).

### *7.1. Objectives*

The IDSA event objectives are as follows:

- Increase the awareness of the city/county regarding the importance of ICT in public services.
- Appreciate government, educational institutions, healthcare, SMEs and the public related to the use and utilization of ICT.
- Encourage the use of ICT by the government in serving the public, and improving the competitiveness of the city/county in the era of globalization, communication and information; and also encourage community to use ICT in improving their quality of life.

IDSA mission is to make Indonesia better. The purpose of IDSA can be described in 3 level of thinking (Roger Kauffman, 2003) [24] as follows:

**Mega:** From Indonesia to digital society of Southeast Asia (Region).

**Macro:** Creating ten world class digital institutions (government, education, health, SME, community).

**Micro:** Creating a double digit growth in terms of enablement (internet penetration), engagement (internet usage) and economy (internet transactions).

### *7.2. Methodology*

Problem-based learning was the main approach used in IDSA to formulate solutions to develop a sustainable city, particularly in an area related with ICT utilization in public service by government. IDSA activities included research that measure and map the use and the utilization of ICT based on 4 aspects (initiative, leadership, usage and benefits) for 5 parties in each city/county (government, educational institutions, healthcare, SMEs and the public).

In detail the four aspects consisted of:

- Initiative: short and long term planning of the ICT of every city/county.
- Leadership: implementation of ICT planning of the city/county.
- Usage: connectivity, ICT penetration, content application, usage of application/ software, and behavior of the usage of ICT by related parties.
- Results: benefits entrusted by related parties.

The awards were divided into two groups in each category of government and society overalls, namely city and county groups.

Survey to local governments was done based on questionnaire that should be answered and returned to the IDSA committee. A total of 226 local governments consisted of 70 cities and 156 counties filled the questionnaire via self-assessment. Respondents from public sectors in 110 cities surveyed were elected through CATI (Computer Aided Telephony Interview).

Judging process was carried out in two phases: the early stages of judging were to determine the finalists, and the second phase was to determine the order of the winners.

The fundamental difference of IDSA compared to another survey of local governments was the emergence of society's overall category. In this category, the survey measured the impact felt by four parties (educational institutions, health care institutions, private SMEs, and public institution), and the implementation of the digitization initiative undertaken by the city/county.

Overall society categories were judged by charging questionnaire survey coupled with CATI, and conducted on the four parties (educational institutions, healthcare institutions, private SMEs, and public institution) in 110 cities and counties. The survey involved 19,000 respondents.

The finalists from each city/county groups from each category were invited to present their achievements in the area of ICT, and judged by an independent jury. There are five finalists from each city and county groups based on index of the five highest on the survey results for each category.

### 7.3. Result

There are 20 finalists and winners as a result for the 2014 IDSA in each category of government and overall society either at the level of the city or county.

Table 4. IDSA Result

Category : Goverment			Category : Overall Society		
City	Rank	Award Level	City	Rank	Award Level
Surabaya	1	Platinum	Banda Aceh	1	Platinum
Bogor	2	Gold	Sukabumi	2	Gold
Yogyakarta	3	Gold	Blikpapan	3	Gold
Denpasar	4	Silver	Makasar	4	Silver
Cimahi	5	Silver	Bukittinggi	5	Silver
County	Rank	Award Level	County	Rank	Award Level
Sleman	1	Platinum	Banyuwangi	1	Platinum
Lamongan	2	Gold	Gresik	2	Gold
Banyumas	3	Gold	Agam	3	Gold
Kutai Timur	4	Silver	Bantul	4	Silver
Banyu Asin	5	Silver	Badung	5	Silver

### 7.4. Insight from IDSA Research

IDSA certainly will not necessarily change the country's competitiveness instantly. It needs more real and thorough actions so that our country is getting ready to face globalization that has been in the eyelid.

From the IDSA Research, TELKOM gains some remark conclusions as follows (TELKOM, 2014) [25]:

- Optimal utilization of ICT depended on the leadership initiative from Regional Head.
- Most applications were used following the examples from the central government policy such as: LPSE, Fiscal Management Information System (SIPKD).
- Applications used by the city local government offices were still not integrated )
- Most of the utilization of ICT was to simply the public services (online complaint handling system), to ease the finding of information (citizen information websites), and to increase knowledge through the internet (digital village).

Some key findings resulted from the research are:

- In the development of ICT in government of level II regions, from 226 cities surveyed, there were still 38, 9% of government's authorities that did not have plans and frameworks to establish policies on ICT.
- While being able to function in the planning and implementation of ICT, 70% of the cities were still incorporated in other units that have other functions in addition to ICT management. Only 30% had a permanent and separate unit for ICT development.
- 70% of local governments had already had the outreach of ICT programs and education as well as routine monitoring and evaluation; and those were well documented.
- 75% of local governments had performed the socialization of the importance and benefits of the internet to their community.
- The main activities performed by employees in the office of the cities /counties when they were using the internet were browsing (90%) and communication (85%).
- Most local governments (72%) had claimed to digitally manage documents and also had server ownership.
- 48% of the cities/counties had already had an integrated service that can monitor and control the public facilities through the sensors, CCTV cameras.
- 90% of the respondents believed that development of ICT infrastructure; including the internet and applications have significant impact on improving the quality of life.
- 92% of the respondents believed that the development of ICT infrastructure; including internet and applications had an impact on the improvement of science and economic growth.
- 89% of the respondents believed that ICT had a significant impact on the operations of government and the improvement of access to public information.

Telkom provided some incentives for the IDSA 2014 winners by allocating its budget to be disbursed in term of:

- Infrastructure development through the development of broadband access facilities for government and public facility (Wi-Fi).
- Provision of content and apps to enhance the government services.
- Capacity development programs through benchmark, seminar, and training
- Community development programs by providing Broadband Learning Center and Creative Camp facility establishment to enhance local creative industries.

The IDSA winners were encouraged to become the center of excellence and a role model for other cities to reduce digital divide by using Information and Communication Technology.

## **8. Summary**

This paper studied the role of the government and business in developing digital and sustainable cities in some perspectives in order to formulate solutions for the development of sustainable cities using problem-based learning approach. The study explored the implementation of INDISO (Indonesia Digital Society) that employs a model of digital city in utilizing broadband and digital technology for the government, public, and private/business sector. INDISO was also in the forefront of digital city implementation by establishing research and awarding cities that had implemented ICT successfully through Indonesia Digital Society Award (IDSA).

The success of a digital and sustainable city will depend on three main elements: innovation, leadership, and collaboration. There are some recommendations for the government/city to create a special digital city consortium comprises of government bureaucrats, service providers, key decision makers, and thought-leaders to make decision for digital city initiatives. The government should encourage open collaborations by making information from public systems open and accessible to citizens and businesses to foster innovation in new services. The government should also look for creative business models to make alternatives in funding such projects to make it sustainable.

Business sectors should become strategic partners for the government and choose each role specifically in the ecosystem. Shared services and big data analytics based on cloud services on digital city management should be shared between local authorities and other public sector agencies. The exploration of firm new business models could participate in the governance of cities and become a supplementary part for the government.

TELKOM through Indonesia Digital Network (IDN) invests both physical and social infrastructure to support digital inclusion in Indonesia.

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The ISCLO Conference 2014

## Twitter Campaign and How Commercial Blogs are Useful for Community Marketing in Indonesia

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### Abstracts

Indonesia is currently recognized as one of the countries in the world with most social media users. The business world sees this opportunity by combining the use of both blog and social media. A lot of companies introduce their products to society by organizing campaigns of citizen journalism in order to create buzz on their products. A number of so called celeb-tweets (Twitter users and bloggers who are normal citizens but have a large number of readers or followers) is paid as endorsers to review the newly launched products and introduces them to their followers. This paper is intended to analyze social media strategies under the 4C's principles: connection, creation, consumption, and control. These principles are the consumer's motivations that lead to the companies' return on investments (ROI), which is measured by active participations from the online society.

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*Keywords:* online marketing, word-of-mouth, marketing mix, communication

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### 1. Introduction

Within the last decade, the popularity and the number of users of social networking platforms such as Facebook, Twitter, Youtube and Google+ are rising. Twitter itself rapidly has gained worldwide popularity with over 500 million registered users as of 2012, generating over 340 million posts everyday, which are known as *tweets* [1]. In the business world, the interest in social media use is also growing. Now, the tendency is that there has been a shift in consumer's role, from being passive recipients of information to active generators of information [2]. Therefore, social media is a common marketing tool used by companies nowadays.

By taking traditional forms of marketing and improving them with social networking, a successful marketing strategy can be successful if it is rightly done, which ultimately results in an increase of clientele, brand awareness, and revenue [3]. Social media efforts are developed under the 4C's principles: connection, creation, consumption, and control. These principles are the consumer's motivations that lead to the companies' return on investments (ROI), which is measured by active participations such as social media comments, review, share, or recommendations [4].

As of the middle of 2012, Indonesia is recognized as the 4th country with the most social media users [5]. Looking at this potential, lots of industries in Indonesia are utilizing social media platforms in their businesses. They use social media, blogs, and other platforms in order to touch wider customers or merely to advertise their products, other than the conventional advertisements they have been doing in televisions, newspapers, and other traditional media. This paper is intended to analyze the use of these platforms and find out whether it will be effective according to some marketing literatures.

Nowadays, the role of social media has been growing in significance. The social media can be said as group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 allowing the creation and exchange of user-generated content [6]. Corporate decision makers try to identify ways in which firms can make profitable use of various social media applications, such as YouTube, Facebook, Instagram, Path and Twitter. Social media is preferred as powerful marketing tool because it can reach wide range of people and enable the companies to directly interact with their customers, next to a fundamental reason that social media is less costly than any traditional marketing

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activities [7]. It also offers better market monitoring, companies can gather information about what kinds of new product are popular among the customers, which in the end will enable the spreading of word-of-mouth (WOM). Also, with social media platforms, companies can establish relationship with other media, such as advertising agency, magazine and newspapers, because most of them also use social media platforms nowadays. However, companies cannot do much since their social network activities are dependant to the social media provider, which leads to more risks of negative feedback getting out of control [8]. Social media industry can be used in establishing trends, reporting news and opinion, and generating buzz. Through social media, publishers can monitor trends, and 'listen' conversations online about their products [9].

Indonesia is one of the countries with the most social media users. Facebook, for example, has not had an office in Indonesia, yet it has grown very rapidly. Nowadays there are over 30 million Facebook users in the country. The reason behind the vastly growing number of users in Indonesia, besides the country's large population, is because people love publicity, do not fret much about privacy and gleefully follow trends [10]. Hence, it is important to see how Indonesia makes the most use of the social media platforms in business. Nowadays, companies exist on several social media platforms, for example, Twitter, company blogs, and mobile phone social media platforms. After knowing effective social media strategies of each company, it is important to know what are the opportunities and limitations of using social media platforms in publishing business.

The discussion of this paper is constructed based on literature review toward the existing literatures about the same topics. Findings and further development on discussions are explained on the hindmost part of the paper.

## 2. Literature Review

This is the part where we discuss social media functions, the motives along with the opportunities and risks of using social media for marketing activities based on what has been stated in the existing literatures.

As a set of activities, marketing is a process for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society in general. Furthermore, according to Kotler, marketing is the set of human activities directed at facilitating and consummating exchanges [11]. Therefore, we can say that marketing is 'the art of communicating' products to the customers besides seeing them.

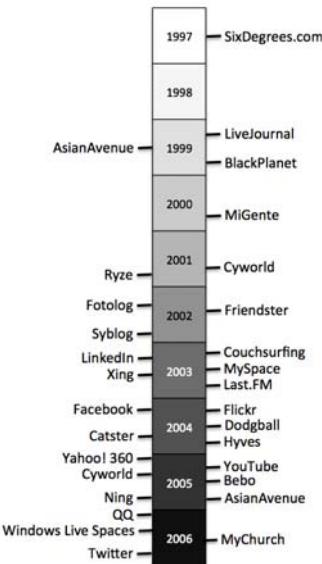
Formal approach of traditional marketing is known as 4 (four) Ps, which are the goods that become the core of the business (Product), the way of delivering information about the product (Promotion), the value concept of the product (Price), and the access to the product (Place) [12]. As time changes, the concept has been developed into a new 7P. Seven (7) Ps is an additional marketing model that refers to the already mentioned four Ps. The three additional points are 'Physical evidence', which includes elements within the store -- the store front, the uniforms employees wear, signboards, etc., 'People', which consists of the employees of the organization with whom customers come into contact, and the last one, 'Process', which is the whole activities and systems within the organization that affects its marketing process. In the digital era like nowadays, technologies have provided all those elements online, even without direct or face-to-face contact.

It has been mentioned above that technology nowadays enables us to do any marketing with the help of internet. Therefore, the world recognizes a new concept of marketing, which is online marketing. Online marketing gains advantages in using internet sources in order to get in touch with customers. Online marketing has its strength in rapid delivery of data and information between the people involved [13].

According to Schrudi (2009), there are two ways of conducting online marketing: passive and active. Using passive online marketing means a company builds a website which provides the information to customers without doing any significant activities to reach out the customers. On the other hand, active online marketing does the otherwise, the company tries to reach potential buyers on the internet. Schrudi argues that active online marketing is somehow more useful because there is an aspect of customer loyalty where customers need incentives to visit the web page more than once, for example with news, forum, services, blogs, raffles and many other possibilities [14]. We can add some more to those incentives, such as online games, quizzes, trivia, etc.

By taking the advantages of the internet technologies, or widely known as 'Web 2.0', companies are using social networking sites to promote and relay information about their brands (Kaplan & Haenlein, 2012). Therefore, online marketing is a new form of the traditional marketing mix (7Ps) that we have discussed before. Online marketing is a hybrid element of the marketing mix because in a traditional sense it enables companies to talk to their customers, while in a non-traditional sense it enables customers to talk directly to one another [15]. These days, online marketing becomes priority for companies because they can get immediate updates and reach wide range of customers.

Social Media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and allow the creation and exchange of User Generated Content [6].“ An overview of the launch dates ranging from 1997 up to 2006 can be seen in the figure below.



*Figure 1: The Development of Social Media through the Years [16]*

Nowadays, with the development of smartphones and portable computers, social media applications and platforms can be accessed everywhere and at any time. Social media nowadays offers a handful of variations, which are designed for different purposes. The table below shows the types of social media platforms and applications according to their purposes.

Purposes	Platform
Private Networking	Social media, Myspace, Google+
Professional Networking	LinkedIn
Diary / Journal	Blog, Twitter, Path
Photos	Flickr, Instagram
Videos	Youtube, Vine, Vimeo
Hobby	Goodreads, Fantasy Football

*Table 1: Social Media Platforms According to Their Purposes*

Boyd and Ellison (2007) define social network platforms as web-based social media applications that enable the creation and maintenance of relationships (networking) [16]. Every human is believed to already have their own networks and circles of friends, so social platforms only facilitate in connecting and making them bigger. Kaplan and Haenlein divided six different types of social media platforms: collaborative projects (for example, Wikipedia), blogs and microblogs (for example, Twitter), content communities (for example, YouTube and DailyMotion), social networking sites (for example, Facebook), virtual game worlds (e.g., World of Warcraft, Fantasy Football), and virtual social worlds (e.g. Second Life) [6].

According to Kaplan and Haenlein (2010), a segmentation of the market can be undertaken, in order to differentiate existing platforms from another. The platforms are differentiated between social presence and the degree of self presentation. According to Shao (2009), people use social media because of three motives. The first one is because they want to consume information and entertainment. The second motive is to participate in social interaction and community development, and the last one is to produce self-expression and self-actualization. Self-representation is the motive that is underlined by most experts. Users obtain self-representation from the utility of the network, and they can also gather information, expand network, and spread their influences in peer group [18]. Foster (2010) argues that social media assures someone's participation in social communities by reserving his membership inside the community by providing connections while at the same time maintains value of the user's privacy [19]. We can see that most features in social media are designed for entertainment, self-expression, and connection of people.

Kim, Sohn and Choi (2011) investigate in their study how cultural contexts shape the use of communication technology by examining the motives for and the patterns of using social network sites [20]. They argue that the social media avidity might differ in different countries, according to the characteristics of the culture of the countries. People in a collectivistic society, for example in Asian countries such as India and Indonesia, are more dependant to social media than those who live in individualistic oriented societies (Hofstede, 2001) [21]. However, aside from the differences, basic underlying motives for using social network sites (seeking friends, social support, entertainment, information, and convenience) are very similar between the countries with different cultures.

## 2.1 Opportunities and Risks of Social Media Marketing

According to Hoffman and Fodor (2010): in order to maximize the effectiveness of social media efforts, the managers must recognize two things. First, it is certain that customers are the ones having control of their social media experiences, but it does not mean that the company cannot integrate them into their social media strategies. A social media manager can have at least a framework of how customers can participate in building the brands image in social media. For example, companies can invite the involvement of bloggers and give them incentives. Some companies already hire endorsers on Twitter to promote their products, the people whom are widely known as ‘celeb-tweets’. Second, the dynamic movement and constant change of social media must be appreciated by the companies. Most companies ignore this fact as most of them only take for granted that social media and its practices are fixed with consumer behaviour concept. A good social media manager must know that this is not the case. Social media is merely a way to detect and reach potential customers, but it needs to be taken care of carefully if the company wants optimum result [22].

Furthermore, according to Hoffman and Fodor (2010), the concept of social media marketing should be carried out under 4C's: connections, creation, consumption, and control [22]. The concrete implication is to make active investments between the customers in various forms of social media, such as blog comments, active participation, private endorsements, review, or merely a recommendation to their peers. In the context of social media, online marketing is the modern implementation for Word of Mouth Marketing (WOM). The WOM concept is based on the flow of information that consumer gives to their friends and acquaintances in terms of product and service reviews to give much greater confidence than marketing messages [23]. The aim of the WOM marketing is, therefore, to promote communication between satisfied consumers and their environment. According to Henning-Thurau et al. (2004), the rapid development of web-based communication has created a new kind of WOM, the so-called electronic Word of Mouth (eWOM) [24]. The act of liking, commenting, and sharing on corporate Social media or Youtube, or re-tweeting a post on corporate Twitter is part of the eWOM.

From internal marketing perspective, there is still often great scepticism about social media. The consequence of having active social media activities is that the flow of information might be overwhelmed. As already mentioned above, social media users are globally connected and can anytime get into the eWOM process 24 hours a day, seven days a week. Therefore, there will be a demand to respond to consumers' inquiries or requests on time. Without the support of the management in the form of adequate resources for social media, failures are unavoidable (Henning – Thurau, 2004)

According to Kaplan and Haenlein (2011) three basic criteria which make viral marketing effective and must be met are: “the right people need to get the right message under the right circumstances”. Viral marketing can be driven by three kind of people, which are market maven, social hubs, and salespeople [6].

Most of the time, market maven creates the message and transfers it to social hubs. If market maven's created message is not effective, then salespeople make it more effective and then transmit it to social hubs. Generally, this message needs to be more effective because this message would help to trigger emotions of the receiver. These message can be either positive (e.g., joy) or negative (e.g., disgust, fear) [6]. The Success of viral marketing can be influenced by delivering the right message to the right people in the right environmental condition.

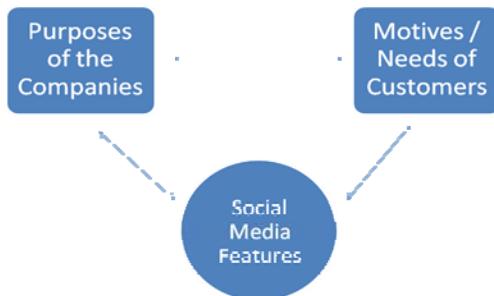
Another major risk is the chance of exposing bad feedback from the consumers. Social media offers consumers a great platform to communicate their dissatisfaction with certain products and services, to the public (for example, through blogs) or to existing contacts (through social network platform). This shift of power in favour of the consumer therefore bears risks for companies, as dissatisfied consumers can reveal their frustrations to worldwide audiences. Consequently, the intended e-WOM activities can in the end become negative e-WOM, as not everything posted in the social media can be controlled by the corporate [25]

	Opportunities	Risks
<b>External Point of View</b>	+ Market Information(Monitoring) + Cheap and Fast Market Research + WOM Marketing + Possibility to build relations with other media.	
<b>Internal Point of View</b>		- There is no such things as tangible social media resources - Well-planned strategy needs to be developed - Dependence to the social media provider - Demand of fast and consistent updates - Negative feedback is out of control
<b>Optimal Design of Consumer Relationship</b>	+ Well-defined social media strategy + Active involvement in social Media + Balance between Social Media marketing and Direct Marketing	- Social media is seen merely as a tool -> Consumers feel they are not taken seriously.

Table 2: Combination of Opportunities and Risks of Social Media Marketing

Besides being information receivers, companies can also send messages to customers and expect them to spread the information to their networks or peers through social media. One other opportunity is to establish networks in the form of partnership, as most companies also use social media platforms nowadays. In the case of publishing companies, they can collaborate with advertising agencies, magazines, and newspapers. All can be done easily and less-costly with social media platforms.

The ideal customer relationship with social media can be achieved through active involvement, well-planned strategy, and balance between direct marketing and social media marketing. The last point should be underlined, otherwise customers will feel that they are only ‘virtual entity’ and not taken seriously in real life.



*Figure 2: The Relationship of Motives and Interests in Social Media Marketing*

The figure above shows how three major disciplines are involved: computer science (social media functions), marketing (business goals) and psychology (motives and needs of users). The arrows imply the relationship between the units.

To companies, social media is regarded as a useful marketing tool. As we have discussed before, social media marketing is the modern implementation for Word of Mouth Marketing (WOM), which is based on the flow of information that consumer gives to their friends and acquaintances in terms of product and service reviews to give much greater confidence than marketing messages [23]. The objectives of the companies that use social media primarily include the acquisition of insights concerning the customer and the spreading of e-WOM (electronic Word-of-Mouth).

To users, the use of social media are based on three basic needs: to consume information and entertainment, to participate in social interaction / community development, and to produce self-expression and self-actualization [17]. Social media offers some fulfillment towards customers’ needs of information and entertainment. Their features, such as video and photo upload enable the spreading of information and self-production of entertainment. Through social media networking platforms such as Social media, they fulfil the needs of self-actualization and networking.

### 3. Discussions, Findings, and Recommendations

	Company	Customer
1.	The more active companies publish social media posts...	The more active customers will behave (the more ‘likes’, retweets, comments, and shares)
2.	What kinds of posts?	<ul style="list-style-type: none"> <li>- Posts that need participation from customers (competitions and events). Examples: writing challenge, a launch event, etc.</li> <li>- Posts that only communicate products (promotions, background). Examples: tag synopsis, date of release of products, etc.</li> </ul>
4.	How to avoid negative comments?	Avoid too much advertisement. Mix the posts with trivia / competition / fun posts.
5.	What triggers customers’ questions?	To know more about competitions and events (participatory contents)
		Information gathering (any posts from the company)
6.	How to handle customers’ questions?	Regularly provide answers or useful links.

*Table 3: Final Recommendations*

The act of commenting, sharing and re-publishing a post on corporate social media platform is part of the electronic word-of-mouth (e-WOM) [24]. Since our focus of discussion is specified on the social media ‘Twitter’, we can conclude that when companies use the options ‘reply’, ‘retweets’ and other Twitter features, then interact with customers, they are actually within the ongoing process of e-WOM.

Therefore, we believe it is important to picture a mapping about the types of posts conducted by company and

customers. A clear mapping can be pictured in the table below:

	<b>Types of Company Posts</b>	<b>Explanation</b>	<b>Types of Activity</b>	<b>Types of Customers Posts</b>	<b>Explanation</b>	<b>Types of Activity</b>
1.	Promotion	Posts intended to introduce new products	Tweet	Praise	Positive Feedback toward certain posts / product	Comments, Reply, Retweets
2.	Product Development	Posts intended to gather customers' feedback for the sake of research and development	Tweet, Tweet with pictures, Reply	Criticism	Negative Feedback toward certain posts / product	Comments, Reply
3.	Background	Posts explaining the story behind products	Tweet, Tweet with pictures, Reply	Advices / Support	Supporting Feedback toward certain posts / product	Comments
4.	Events	Posts informing offline events related to the promotion of products	Tweet, Tweet with Pictures	Questions	Enquiries about products	Reply
5.	Competitions	Posts intended to engage customers in online games/ contests	Tweet, Reply, Online Contests	Others	Any other posts, mostly unrelated posts or activities	Retweets

Table 4: Types of Posts

Some studies have already been conducted about social media, but the study focus continues to grow as the technology of social media itself keeps growing every day. As an author, the only thing that this observation can deal with social media is to add new findings for more research in the future.

From an economic perspective, the findings of this study are interesting for the following reasons. Firstly, marketing communications for high-involvement products can be performed in social media as a platform, which relies on the commitment of the users. There, we found that the emotional factor plays a big role in how customers post on social media.

These contents are not so much discussed in the existing literatures. Most of them talk about users' motives in using social media and general social media strategies that become more and more common these days. However, up to this moment, I do not see many of the literatures that talk about which of the Social media contents that are most important in measuring customers' involvement or even loyalty. From the observation conducted on this paper, we have drawn a conclusion that those aspects can somehow be measured by counting the numbers of feedbacks (comments, likes, shares) and comparing them into other content categories, mainly companies' posts.

Through focused and motivated conscious customer care activities, companies can gain advantages by e-WOM (Electronic Word of Mouth) from internet users. Praise for a company, a product or a service is contagious in a good way, which spreads easily throughout social media. For businesses, it has never been so easy and cheap to obtain support for their products and services as what happens in today's highly networked social media age.

However, the study about motives and needs of these promoters is still not enough. The studies in social media are still relatively young, therefore, there have not been many literatures specifically talking about motives. It shows that further research is needed to obtain more information.

Last but not least, further research into the social media activities of modern-day companies are highly recommended. The analysis of the collected content analysis could also be reused for other issues and studies in the topic of social media.

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## CEO Succession and Stock Returns at Indonesia Stock Exchange

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### Abstract

Event study is a study which is concerned with market reaction to an event where its information is published as an announcement. The announcement of CEO succession is one of many economic events through press releases published by the company. The CEO succession also shows a change on leadership in which during the process it can make changes in the business strategy. Therefore, organizational restructuring is required to keep the process of business strategy on working. This study aims to test the efficiency of the market by analyzing the effect of CEO change announcement toward the abnormal return on stocks in the Stock Exchange in 2005-2011. The method used is the event study. The period of analysis is 45 working days, which consists 30 days of estimation period and 15 days of event period. Thirty four companies listed on the Stock Exchange in 2005 to 2011 were taken as sample. Hypothesis testing is using t-test for independent samples. Based on this research, it is proven that there are abnormal returns from the announcement of CEO substitution. The substitution of old CEO to new reputable CEO or vice versa generates average abnormal return that is negative.

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Keywords: market efficiency, CEO succession, reputation, abnormal return, t-test

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### Background

Capital market in Indonesia run two functions; economic and financial. In economic function, the fund is allocated efficiently from parties who have surplus funds as the capital owners (investors) to companies listed on the stock market (issuers). While the finance function of the capital market is shown by the possibility and the opportunity to get in return the fund to the owner or investors in accordance with the character of the investment that will be selected.

Activity in the stock market is influenced by the economic environment, both macro and micro, and political environment. The influence of micro-economic environment are CEO succession, dividend distribution, and the announcement of financial statements. Additionally, the influence of macro environment are changes in interest rates, inflation at home and abroad, as well as various regulatory and economic deregulation issued by the government.

Company's stock price traded on the stock exchange is seen as a rational value that provides the information necessary for making decision. The level of stock price reasonableness may occur when the stock market is efficient. Efficient Market Hypothesis (Fama, 1970) is defined as the market price of which its securities already reflect all relevant information. This happens because it is unnoticed by the traders that stock price may adjust to the new information that can affect the stock market. The faster the new information is reflected, the more efficient the stock market.

The new information will form new confidence and change the stock price through changes in the demand and supply of securities traded on the stock market. Changes in these conditions are the result of various information that can affect the transaction. Information itself is divided into two, namely internal information and external information (Fama, 1970). Internal information is information that comes from within the company as the information contained on the financial statements of the company. While the external information is all information that reflects all of the national economy,

regional, international, and important events in other fields which are able to give positive or negative impact of the transaction on the trading.

CEO succession is likely to make a company's stock price fall. The statement is in accordance with the results of research conducted by Ferere and Renneboog (2000). In the journal, Ferere and Renneboog conducted a research on the relationship between the resignation of the CEO and the company's stock prices in France. They divided resignation into three categories: the forced resignation, voluntary resignation, and the resignation due to retirement age and weak. The research results show that the forced CEO succession announcement received little market response to positive abnormal return of 0.5%. The market may have been braced for the turn of events before the announcement, because there was abnormal returns of 6% in the month prior to the event. As for the voluntary CEO succession did not cause changes in stock prices. CEO succession due to aging caused a slight drop in the stock price. A decline in stock price due to the change of CEO will generally give positive reaction from the market. This happens because investors want certainty.

Planning staff succession plays an important role in determining the success of the company in the future. According to Urooj et al. (2010), succession planning is a systematic process of the company to identify, assess, and develop its staff and also its successor as the right people with the appropriate skills and at the right time to ensure that they are ready to accept the leadership and other key positions in the company. The candidates with the highest potential are selected with a very tight selection who will then be trained in how to develop their skills and competencies to be able to face the challenges of leadership in the future.

Rhim et al. (2006) finds that CEO succession with the right candidate will affect the success of the company. It happens because the CEO plays an important role in determining the strategy, design, performance, and corporate culture that simultaneously illustrate the company's future. CEO succession may be due to the issue of aging of the old CEO or a decline in the performance of companies on the leadership of the former CEO. This is consistent with the theory of Whidbee Farrel (2002) which states that the change of CEO is one way to overcome the performance degradation experienced by the organization. The announcement of CEO succession is one factor that can determine the level of market efficiency, because the news about it can affect the market response and be reflected in the stock price.

The phenomenon of CEO succession at the world level that may attract the attention lately is the event of resignation of Steve Jobs from Apple Inc. In August 2011 he resigned from his post due to his health condition that he suffered from pancreatic cancer. The man who replaced him is Tim Cook. As a result of these events, Wall Street Apple shares fell 7% after Jobs had announced his resignation. This leading technology stocks finally managed to get up and closed up 0.7% on the NASDAQ (Kompas.com, August 25, 2011) from the news, the stock price drop of Apple Inc. generated negative abnormal returns for investors. The market responded to CEO succession events such as bad news. Although in the end Apple shares closed up, the increase was not as big as the decrease.

According to Lindrianasari and Hartono (2011), an overview of the research on CEO succession phenomenon in Indonesia is still very rarely done, since the turn of the data is difficult. There is not much information on CEO succession announced to the public either. The phenomenon which can be captured on the removal of the CEO in Indonesia is that the CEOs replaced are those who are not reputable to be replaced by the CEOs who have a good reputation (based on work experience and educational background) but instead it is seen as the fall of share price. This happens in some companies in Indonesia. This phenomenon is very interesting to be discussed, because in theory, it should turn good news and positive response from the market with a rising stock price. However, the opposite is true, even the company's stock price declines.

Some companies in Indonesia, which experience a phenomenon like the above, are as follows:

No.	Emiten	<i>Abnormal Return</i> on the day CEO Succession
1.	(BIP) PT Benakat Petroleum Energy Tbk	-0,01806
2.	(DEWA) PT Darma Henwa Tbk	-0,04094
3.	(SMCB) PT Holcim Indonesia Tbk	-0,03473

Based on the background and the problem identification that have been described above, the issue concerned in this study is whether there is a difference between the average abnormal return of stocks that make replacement of CEO succession with a reputable company and the shares that the changing CEO to CEO reputation is not a good substitution.

## Theoretical Framework

### Market Efficiency

Efficient market concept was proposed and popularized by Fama (1970). The market in question is a capital market and money market. Gumanti (2011) states that a market is said to be efficient if no-one, both individual investors and institutional investors, will be able to earn abnormal returns (abnormal returns), after adjusting for risk, and using existing trading strategies. Prices formed in the market is a reflection of the existing information or "stock prices reflecting all available information". Another expression states that in an efficient market prices of assets or securities, as quickly and completely, the information available about the assets or securities is reflected. Briefly in Gumanti Fama (2011) classifies the information into 3 types, namely:

1. *past price changes;*
2. *public information;*
3. *public and private information.*

Generally there are three types of Efficient Market Hypothesis (Fama, 1970), namely:

- a. Weak

Securities prices already reflect all information that can be derived by examining market trading data such as historical data, trading volume, and interest on the loan. Version of this hypothesis implies that trend analysis is futile. This hypothesis is valid if the data is a reliable signal of future performance so that all investors can learn these signals and the signals ultimately will lose meaning.

- b. Semi Strong Form

The prospect of a company should be reflected in the stock price. Such information includes in addition to the price, past, fundamental data on the company's product line, management quality, balance sheet composition, patents held, profit forecast, as well as accounting practices. On the efficiency of this form, the investors have access to this information.

- c. Strong Form

The market price reflects all relevant information, including information available to the people.

### Stock Return

Hartono (2003: 446) defines return as a return realization that has occurred and can be calculated based on historical data, while return expectation is the return that is expected to be acquired by investors in the future. An abnormal return is based on all relevant information available. An abnormal return is the excess of the return actually happening to return to normal. Several measurements used for actual return are total return, relative return, cumulative returns, and adjusted return.

### Total Return

Total return is the total return of an investment in a given period. Total return is often called the "return". Hartono (2003: 110) states the total return consists of capital gain (loss) and yield that can be denoted as: Return = Capital Gain (Loss) + Yield Capital gain (loss) which is different in their relative price of investment now with the price of the last period Capital gain can be denoted as:

$$\text{Capital gain (loss)} = \frac{P_t - P_{t-1}}{P_{t-1}}$$

### Return Expectation

Return expectation is the return that must be estimated. Brown and Warner (1985) in Hartono (2007: 434) estimate abnormal returns using an estimation, namely:

1. Mean-Adjusted Model

Model-adjusted average (mean-adjusted model) assumes that the return expectation is a constant equal to the average return realized earlier during the estimation period. Estimation period is the period before the event. The formula used to calculate the return expectations is as follows:

$$E(R_{i,t}) = \frac{\sum_{j=t_1}^{t_2} R_{i,j}}{T}$$

2. Market Model

The calculation of return expectations with the market model is done by establishing a model expectation using data

realization during the estimation period and then using the model to estimate the expected return in the period of the event (the event period). Model expectations can be formed using OLS regression techniques (Ordinary Least Square) with the equation:

$$R_{i,j} = \alpha_i + \beta_i \cdot R_{Mj} + \epsilon_{i,j}$$

### 3. Market Adjusted Model

A market-adjusted model used to estimate returns assumes that an event will be better when using the market index return at that time. In this model the estimation period is not used to establish the model estimation because the estimated return of the securities is equal to the return of a market index.

### Abnormal Return

Abnormal return can be calculated with the formula:

$$AR_{i,t} = R_{i,t} - E(R_{it})$$

### Average Abnormal Return

To test whether there is any abnormal return for each security, it is done in the aggregate; the average abnormal return tests all of the securities in cross-section for each day in the event period. The average abnormal return for day  $t$  can be calculated based on the following arithmetic average:

$$AART = \frac{\sum_{i=1}^k AR_{i,t}}{k}$$

### Cumulative Abnormal Return

Accumulation of an abnormal return or cumulative abnormal return (CAR) is the sum of abnormal returns in the days before the event period for each of the following securities:

$$CAR_{i,t} = \sum_{a=t_3}^t AR_{i,a}$$

### Cumulative Average Abnormal Return

If there are  $k$  securities, the accumulated average abnormal return or cumulative average abnormal return (CAAR) can be calculated as follows:

$$CAAR_t = \frac{\sum_{i=1}^k CAR_{i,t}}{k}$$

### CEO Reputation

Each company must choose people who are experienced and have good credibility to become the CEO of the company. Anyone can become a CEO of both from the internal and external of the company as long as he or she deserves and meets the conditions set by the company. The selection of a CEO's reputation is associated with individuals who are the candidates for the CEO.

According to Gainess-Ross (2003):

*"Research has shown the reputation of the CEO is inextricably linked to the reputation of the company. CEOs set the tone, define company direction, attract talent, and are the human face of the organization. Increasingly, CEOs are building their brands on credibility, not celebrity. In times of uncertainty, the CEO is called upon to speak on behalf of the organization."*

Gainess-Ross also stated that CEO reputation is *the manner in which the media, investors, analysts, employees, and even the general public perceive a chief executive has tremendous influence over the company's prosperity, standing, and destiny.*

CEO reputation is the way the media, investors, analysts, employees, and even the general public think a chief executive has tremendous influences on prosperity, survival, and the fate of the company.

### Event Study

Event study is defined as a study concerning the impact of an event on stock prices in the market, both at the time it happens and a few moments after it happens. It is a condition whether the share price will increase or decrease after the event takes place or whether the stock price has been affected before it happens officially (Husnan, 2005). Many events may affect the price of stocks in the market and therefore it happens. These events have different characteristics. Corporate events such as

split, rights issue, bonus shares, etc. have an influence on stock prices but slow (Husnan, 2005). According to Tandelilin (2001), a standard methodology that is typically used in the event study is as follows:

- a. Collecting sample
- b. Determining the actual day of the event
- c. Determining the projecting period
- d. Calculating the returned sample, every day during the projection period.
- e. Calculating abnormal returns
- f. Calculating day to day average abnormal returns.
- g. Sometimes a daily abnormal return is used for calculating abnormal return.

### **Research Methodology**

The research method used in this study is descriptive and verificative method with event study approach. Descriptive approach (descriptive research) is performed by interpreting the data obtained based on the facts that appear in the period of the study in order to obtain a clear description from the object. Verification approach is done through statistical tests of the hypothesis that is proposed. The research begins from the analysis phase theory as a starting point, and then the data was collected, processed, and analyzed, then inferred based on the existing theory.

Descriptive methods describe or depict any actual data existing as well as the phenomena. The definition of descriptive method according to Cooper and Shindler (2003: 10) is as follows:

*“A descriptive study tries to discover answer to the question who, what, when, where and sometimes how to describe or define a subject, often by creating a profile of a group of problems, people or event.”*

According Tandelilin (2001: 126), studies have looked at the impact of the announcement information to price securities that are often called event study. Event study is primarily related to how fast the information coming into the market may be reflected in the stock price.

Table 2. Operational Variable

Variable	Variable Concept	Indicator	Scale
CEO Succession	An independent variable is also a dummy variable in the study.	a. Working Experience (10-30 years) b. Age(25-65 years) c. Educational background (SMA-S3)	Nominal
Abnormal Return	An excess of its actual return (actual return) to the expectations of return (expected return). This is the dependent variable	$\text{Abnormal Return : } AR_{i,t} = R_{i,t} - E(R_{it})$ $\text{Average Abnormal Return : } AART = \frac{\sum_{i=1}^k AR_{i,t}}{k}$ $\text{Cumulative Average Abnormal Return}$ $CAR_{i,t} = \sum_{a=t_3}^t AR_{i,a}$	Ratio

Sources of data used in this research are secondary data, where the data are already available and published by particular researcher. These data used by the author is the data that relate directly to the research conducted and sourced from:

1. Investing.businessweek.com
2. www.finance.yahoo.com
3. www.idx.co.id
4. www.tokohindonesia.com
5. www.ipotindonesia.com
6. www.reuters.com

## **Sampling**

The population of the research is the companies listed on the Indonesian Stock Exchange who did CEO succession in the year 2005 - 2011, as many as 214 companies. Sampling technique in this study is purposive sampling. Purposive sampling is a sampling technique which does not give the same chance or opportunity for any element or selected members of the population to be sampled (Nazir, 2003: 89). The sampling method is used to determine the suitability of the sample on the basis of the characteristics of the sample with certain selection criteria. The criteria used in this study include:

1. The Companies that are listed at Indonesian Stock Exchange 2005-2011 period.
2. Firms are never included in the index Bisnis27, LQ45, and Kompas100 2005-2011 period;
3. Company incorporated in the index Bisnis27, LQ45, and Kompas100 who do CEO succession during the 2005-2011 period.

## **Analysis Framework**

The samples in this study were divided into two groups, namely the group shares with the announcement of CEO turnover events with a reputable replacement of CEO (Reputation 1/R 1) and the group shares with the announcement of CEO turnover events with CEO replacement with not reputable ones (Reputation 0/R0). Shares with a reputation of Reputation 1 is 11 units in total, while stocks with a reputation of Reputation 0 is 23 pieces in total. This grouping was done in order to see the impact of each announcement, whether a good CEO turnover generates a positive abnormal return and whether CEO turnover, which is bad, produces negative abnormal returns.

## **Results**

### **Observation of Average Abnormal Return and Cumulative Average Abnormal Return on Event Period of CEO Changing Announcement**

Markets react differently to an event. For the CEO turnover events in this study, both the market responses show negative response. The acquisition of abnormal return is negative indicating that the negative market gives reaction to the announcement of CEO turnover.

CEO turnover announcement has caused the average abnormal return (AAR) shares of the company with the reputation of the successor for the CEO whose reputation is not good (Reputation 0/R0) to decrease. The same happens with the condition of R1, AAR shares of the enterprises with a good reputation successor for CEO (Reputation 1 / R1) is negative.

Based on the calculation, the CEO turnover with a reputation of 0 and reputation 1 produces negative abnormal returns. But CEO successors with a good reputation (R1) produces a more negative abnormal return than the condition R0 around the announcement date, with the average value of R1 -0.00216 AAR and the AAR average of R0 is -0.00015.

Cumulative average abnormal return (CAAR) is useful to describe the magnitude of the average abnormal stock return to the day-to-t. From this value, it is seen that the announcement of CEO turnover gives a positive or negative impact on investors. The overall impact is seen at the end of the period of analysis (i.e. H + 7). If the value of H + 7 CAAR is positive, then the announcement of CEO change gives positive impact. Similarly, on the other hand, if the H + 7 CAAR is negative, then the announcement of the CEO change will adversely impact the investor.

CAAR value of the shares is acquired by the company with the reputation of the CEO successor R0 up to H + 7 is of -0.219%. This is a signal that the event of CEO announcement turnover gives a negative impact on the shares of the successor company to the CEO's reputation that it is not good because it reaches the end of its CAAR period - the negative events. The shares of enterprises with good CEO successor reputation (R1) give a negative value on CAAR. The same condition occurs to the not good CEO successor reputation (R0). The CAAR for the condition R1 is -0.03245.

### **Statistical Testing for Abnormal Returns around CEO Succession Announcement in Event Period**

Before doing the statistical test, the first step to do is testing data normality. To test the normality of the average abnormal data return, we use one sample Kolmogorov Smirnov test with  $\alpha = 0.05$ .

The hypothesis:

H0: Normal distributed data

Ha: Not normally distributed data

Normality test results on the average abnormal return data is as follows:

Table 3. Kolmogorov-Smirnov

Variable	Asymp. Sig	$\alpha$	Evidence
Average Abnormal Return (AAR)	0.563	0.05	Pass
Average Abnormal Return (AAR)_R0	0.972	0.05	Pass
Average Abnormal Return (AAR)_R1	0.217	0.05	Pass

In Table 3 above, it appears that the entire sample passes the Kolmogorov-Smirnov normality test. It is the evidence of the significance of each sample for 15 days event period which is greater than  $\alpha$  of 5%. After all data have passed Kolmogorov Smirnov test, then the test was done to find:

H1: there is abnormal return from the announcement of CEO succession;

H2.1: there is positive abnormal return for CEO succession with good reputation (1);

H2.2: there is positive abnormal return for CEO succession with not good reputation (0).

### Test of Hypothesis 1

Hypothesis 1 (H1) is the tentative conclusion of this study to prove that the announcement of CEO succession gives abnormal return. Null hypothesis and the alternative hypothesis are as follows:

H0: AR = 0

Ha: AR  $\neq$  0

The Results for Hypothesis 1 testing of the total shares regarding CEO succession announcement with a good and not good reputation are as follows:

Table 4  
Average Abnormal Return of CEO Succession  
During Event Period

Day	Average Abnormal Return (AAR)	t-test
-7	0.00145	-0.73870
-6	0.00092	0.41929
-5	0.00704	0.51481
-4	-0.00029	0.43978
-3	-0.00373	-1.17977
-2	0.00172	1.48482
-1	-0.00287	-1.54833
0	-0.00121	0.12349
+1	0.01079	0.89549
+2	-0.00513	-1.33705
+3	-0.00158	-0.65201
+4	-0.00158	-0.30734
+5	-0.00499*	-1.99824*
+6	-0.02005**	-2.28436**
+7	0.00754	1.67062

Note : t-test based on null hypothesis which state Average Abnormal Return (AAR) = 0  
\*= significant at  $\alpha$  = 10% ( $t < -1.6924$  and  $t > 1.6924$  for two tail test with  $k=34$ )  
\*\*= significant at  $\alpha$  = 5% ( $t < -2.0345$  and  $t > 2.0345$  for two tail test with  $k=34$ )

It can be seen in Table 4 above, it appears that the CEO turnover announcement events are statistically proven to provide significant abnormal returns for shareholders. Significant abnormal return magnitude occurs at H + 5 and H + 6 with two different levels of significance. An abnormal return of H + 5 is proved significant at  $\alpha$  = 0.1 with the t-test -1.998. AAR at H + 6 significant at  $\alpha$  = 0.05 with the t-calculate -2.284.

The occurrence of a significant abnormal return at H + 5 and H + 6 indicates that the market absorbs information and reacts to the CEO turnover quite slowly to the event to form a new equilibrium price. The market is not efficient because the market responses to a new equilibrium is relatively late. It needs 5 days after the CEO succession. It is not compatible with the theory put forward by Hartono (2007: 390), namely: "Market is called efficient if time adjustment of new equilibrium price is done rapidly. The speed of the market to absorb all of the information depends on the type of the information. If the investor only takes a quick step to evaluate the information, the possibility of time may only be for a few days or even a single day or even in just a few minutes alone".

Indonesian market responds to the CEO succession slowly. Indonesian investors need a long time to assess whether it gives a good impact for the company. Market will give a good response if the reputation of the successor CEO is better than before. That condition happens because the investor assumes that the CEO with a good reputation will increase the value of the firm. Otherwise, the CEO with not good reputation will decrease the value of the firm.

The test results for Hypothesis 1 of CEO successor with not good reputation is:

Table 5  
Average Abnormal Return of CEO Successor With  
Not Good Reputation (R0) During Event Period

Day	Average Abnormal Return R0 (AAR_R0)	t-test
-7	-0.00265	-0.84020
-6	0.00424	0.82148
-5	-0.00122	0.09095
-4	0.00170	0.67900
-3	-0.00608**	-1.79879**
-2	-0.00073	1.43548
-1	-0.00264**	-1.88293**
0	0.00117	-0.36131
+1	0.01312	1.56109
+2	-0.00612	-1.29202
+3	-0.00044	-0.72194
+4	0.00295	0.36961
+5	-0.00497*	-1.65882**
+6	-0.00466	-0.09441
+7	0.00414	0.74915

Note : t-test based on null hypothesis which state Average Abnormal Return (AAR) = 0  
\*= significant at  $\alpha = 10\%$  ( $t < -1.6924$  one tail test with  $k=23$ )  
\*\*= significant at  $\alpha = 5\%$  ( $t < -2.0345$  one tail test with  $k=23$ )

The results in Table 5 shows the value AAR\_R0 for 23 stocks and test-t in the days of the event period. AAR H-3 and H-1 is significant value at  $\alpha = 5\%$  (t-test value is smaller than -1.7171). AAR values of H + 5 is significant at  $\alpha = 10\%$ . The T-test value is smaller than t-table, which leads to rejection of H0 and Ha reception. It is evident that the CEO turnover announcement event, in this case the CEO succession with no good reputation, generates negative abnormal returns for investors. AAR significance around the announcement date, namely the H-3, H-1, and H + 5 indicates that the announcement contains the information. Therefore, the announcement causing the market reaction is shown by the AAR obtained.

In H-1 announcement, there is a significant abnormal return. This indicates that the information has been disseminated in public first before it was officially announced. In H0 to H + 4 there is no abnormal return. However, in the case of H + 5 there is a significant negative abnormal returns. CEO turnover events in companies that do not have good reputation of CEO succession will not be responded well by the market. The market is less responsive to receive such information, so that the new abnormal return occurs 5 days after the announcement. However, after H + 6 it is stabilized and the market price has reached its equilibrium price, because it is not found any abnormal return again.

The test results for Hypothesis 1 of CEO successor with good reputation are:

**Table 6**  
**Average Abnormal Return of CEO Successor with  
Good Reputation (R1) During the Event Period**

Day	Average Abnormal Return R1 (AAR_R1)	t-test
-7	0.01000	-0.08379
-6	-0.00604	-0.45071
-5	0.02431	0.77357
-4	-0.00446	-0.20865
-3	0.00119	0.52689
-2	0.00684	0.53475
-1	-0.00336	0.00061
0	-0.00617	0.73956
+1	0.00592	-0.68297
+2	-0.00306	-0.48240
+3	-0.00397	-0.10237
+4	-0.01105	-1.07479
+5	-0.00502	-1.11445
+6	-0.05223	-3.87961
+7	0.01464*	1.85385*

Note : t-test based on null hypothesis which states Average Abnormal Return (AAR) = 0  
\*= significant at  $\alpha = 5\%$  ( $t > 1.8125$  one tail test with  $k=11$ )

Based on the table above, 1 AAR\_R1 is statistically significant. The significant AAR obtained in the H + 7. AAR values of H + 7 is significant at  $\alpha = 5\%$ . The acquisition of significance around the announcement date of the announcement shows that a CEO succession with a good reputation contains information that makes the market react. Market reaction is shown by an average abnormal return earned by investors. At the CEO succession with good reputation, the market response occurs rather slowly. Market will response to the events of the week after the announcement.

Based on the test results of Hypothesis 1, it can be concluded that the CEO succession event generates abnormal returns for shareholders. Similarly, in the research by Ferere and Renneboog (2000) in his journal that examines the stock price response to the resignation of the CEO of the French company, the CEO succession with the forced resignation of the CEO (e.g. due to poor performance) will result positive and significant abnormal returns, although the number is not very high, that is equal to 0.5%. While the CEO turnover due to age (retirement) will result in a decrease in the stock price.

The results of hypothesis test 1 also shows that the testing efficiency of the semi-strong market (semi-strong form) in Indonesia is not efficient. Market response is a bit slow with the creation of the new equilibrium price only in 5 to 7 days after the announcement. It proves that the market is not efficient, less in accordance with the theory of market efficiency proposed by Hartono (2007).

## Test of Hypothesis 2

Hypothesis 2 in this study aims to analyze whether there are differences between the abnormal return of CEO succession events with good reputation (AR\_R1) and the abnormal return of CEO succession events with not good reputation (AR\_R0) where:

H2.1: there is a positive abnormal return for CEO succession with good reputation (1)

H0:  $AAR \leq 0$

Ha:  $AAR > 0$

H2.2: there is a negative abnormal return for CEO succession with not good reputation (0);

Significance test for hypothesis 2 is done to test the average difference (t-test) in one direction. Error rate used in this test is  $\alpha = 0.05$ . The statistical test on Hypothesis 2 is described in Table 7 below.

Table 7  
Hypothesis Testing – Average Abnormal Return  
Independent Sample Test

		<i>Levene's Test for Equity of Variance</i>		<i>t-test for Equality of Means</i>		
		<i>F</i>	<i>Sig.</i>	<i>df</i>	<i>t</i>	<i>Sig.</i>
<i>Average Abnormal Return</i>	<i>Equal variances assumed</i>	3,348	0,078	28	0,447	0,658

Source: data processed

As seen in the SPSS output, F Levene test is calculated of 3.348 with a probability of 0.078. Because the probability is  $> \alpha$  (0.05), we can compare the average population t-test with the Equal Variances Assumed basis. The table above shows that the value of t-test on equal variance assumed is 0.447 with the significance probability of 0.658. The value of t-table with  $df = 28$  and  $\alpha = 0.05$  (two-tail) is obtained by 2.048. When the t-test is compared with the t-table to the right side on H2.1, the value of t-test is (0.658)  $<$  t-table (2.048) so that the decision could be made to accept H0 and reject Ha. Thus, the conclusion of this test is the AAR of the announcement of CEO succession with good reputation (R1) will result in negative abnormal returns. In other words, the CEO succession with a good reputation is bad news and not beneficial to investors because it produces negative abnormal returns.

For H2.2, where CEO succession with no good reputation (R0) will result in negative abnormal returns, the result obtained by t-test is of 0.658. By performing the t-test (left hand test), the value of t-test is (0.658)  $<$  - t-table (-2.048). From these results it can be concluded that Ha = abnormal return of CEO succession with not good reputation (R0) will result in negative abnormal returns, and therefore it is rejected. Although the CEO succession with good reputation is not considered as bad news and the market responds negatively and does not provide benefits to investors, these results are not statistically significant.

Based on the test results of Hypothesis 2, it can be concluded that there is no difference in the market response of CEO succession event, either with a new CEO with a good reputation and a new CEO whose reputation is not good. Both produce negative abnormal returns. Both do not give benefit for shareholders. From these events, all investors assume that CEO succession is bad news.

This is consistent with the results of the research by Ferere and Renneboog (2000): CEO succession due to aging will generate a negative return. When compared with the situation in Indonesia, the CEO of a national company in Indonesia is older (near to retirement age). This may be due to the principle that mature age and experience are much better.

These results are also consistent with the results of previous studies conducted by Urooj et al. (2010) who examined 10 CEO succession events in Pakistan during 2005-2008. From these studies, the results showed that there were negative stock returns after the event. It means that the CEO succession is bad news for the market. This happens because most companies in Pakistan are family owned. Thus, if there is a CEO succession and replacement, candidates coming from the external environment of the family, it is considered as a threat to the company and the market will respond negatively.

The results of hypothesis 1 and hypothesis 2.1 testing show that the results are significant. Meanwhile, on the hypothesis 2.2, although the CEO succession with good reputation is not considered as bad news and the market responds negatively, it does not provide benefits to investors. These results are not statistically significant. The results of hypothesis 2.2 testing indicates that the measurement standards may be used to determine the replacement of CEO whose reputation is not high enough, so it does not look too obvious in the difference between the good reputation with the bad reputation.

Based on the comparison between the average AAR of CEO succession events with a good reputation (R1) and the CEO succession event with no good reputation (R0), the result of average abnormal return (AAR) is quite different. The average value of AAR\_R1 is -0.00216 and the average value of AAR\_R0 is -0.00015. The difference in the average values indicates that a greater market responds to good news (replacement CEO having a good reputation than the previous CEO)

rather than bad news (CEO replacement having a reputation which is not better than the previous CEO). This might be due to the lack of standard assessment on good reputation.

Based on the information absorption, the Indonesian market can be said to be inefficient. This is due to the fact that the absorption of CEO turnover announcement information to establish a new equilibrium price is a bit slow going with 5 to 7 days after the announcement of the event.

The results of t-test on the hypothesis 2 imply that the results are not in accordance with the Efficient Market Hypothesis (EMH). Good news should generate a positive abnormal return and bad news generates negative abnormal returns. Events whose result is in accordance with the EMH is CEO succession with not good reputation. However, the CEO succession with good reputation do not generate positive abnormal return. The results of testing hypotheses 1 and 2 are different from the EMH. This suggests that may be the measurement standards used to determine the reputation of the CEO replacement in this experiment is not high enough; thus, it does not look too obvious in the difference between the good reputation and the bad reputation.

## **Conclusion**

Based on the discussion and analysis of the proposed hypothesis regarding the impact of CEO succession announcement on shares of the sample, several conclusions can be made as follows:

1. There is an average abnormal return on the announcement of CEO succession events which are significant at  $\alpha = 10\%$  and  $\alpha = 5\%$ . The abnormal return is a market response to information circulating on the stock exchange.
2. There is no difference in the average abnormal return based on the statistical test of the CEO succession event with good reputation (AR\_R1) and CEO succession event with no good reputation (AR\_R0). CEO succession events with good reputation and CEO succession with no good reputation is regarded as bad news by the market and therefore it obtains negative average abnormal return that does not provide benefits to shareholders.

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The ISCLO Conference 2014

## Guiding for Organizational Intelligence Research

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### Abstracts

The Organizational intelligence is “an organization's capability to process, interpret, encode, manipulate, and access information in a purposeful, goal-directed manner, so it can increase its adaptive potential in the environment in which it operates. The discussions about organizational intelligence has been carried out in very diverse meanings, although all of them refer to the term “ability” or “capability”. The diverse meanings and understandings give an opportunity for researchers to investigate them more deeply and comprehensively in order to get better and more complete understanding. Organizational intelligence has become a popular topic recently in business and academia and has attracted many researchers and practitioners from different fields. However, many studies in such different disciplines and perspectives cause diverse interpretation to organizational intelligence. As a result, it presents a discrepancy resulting in disorder in the organizational intelligence literature. Since there is still no solid theoretical guidance (it is possible to result either new theory or enlivening theory), the complexity of the nature of organizational intelligence, the importance role of the participants, and the social process of organizational intelligence justify and lead the use of grounded theory as an appropriate method. Therefore, to investigate organizational intelligence it is argued that the adequacy of theoretical guidance cannot be expected to come from the extant theories, because there is still no solid theory discussing about organizational intelligence deeply and comprehensively.

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*Keywords:* organizational intelligence research, lack of solid theory, grounded theory.

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### 1. Introduction

Nowadays, the external environment of the organization is undoubtedly more dynamic and unpredictable, making it very difficult for companies to avoid turbulences hindering their activities. Unavoidably, contemporary organizations must face the rapidly changeable events in economic, technological, social, cultural, and political environments. Their survival definitely will depend on their ability to adapt to the changing environment. At the interface between the internal field and the external field forces, the companies should maintain a dynamic equilibrium. Organizations that successfully react to a dynamic and usually an inimical trade ambiance depend on their ability to provide relevant information and to find adequate solutions to the problems they face. As a result, they must be able to develop new *capabilities* and to build flexible structures, thus winning core competences (Prahalad and Hamel, 1990; Vasilache, 2007). The terms “ability” and “capability” are related to “intelligence”, in the sense that organizations should have appropriate intelligence to face changes and complexity in the environment. This intelligence is called “organizational intelligence” (Akgun, 2007; Bratianu, 2006; Cakir, 2008; De Angelis, 2013, Glynn, 1996; Saeed et.al., 2014; Simic, 2005; Vasilache, 2007), that is one of the new and powerful competitive capabilities (Vasilache, 2007). One of the definitions of organizational intelligence(OI) is “an organization's capability to process, interpret, encode, manipulate, and access information in a purposeful, goal-directed manner, so it can increase its adaptive potential in the environment in which it operates (Glynn, 1996).”

The importance of organizational intelligence as a source of competitive advantages is more obvious in the first decade of the twenty-first century. For instance, it can be viewed in the following citation:

“Knowledge has values, but intelligence has power. This is a key lesson as we move from New Economy to Next

Economy. The New Economy concerned itself with managing the enterprise, the firm's knowledge assets, and competitive knowledge. The Next Economy demands that all this be merged into a capability fostering the creation of actionable intelligence. At minimum, better managing all aspects of an organization's knowledge base can fortify strategic decision-making. At maximum, it can generate defensible competitive advantage through intelligence, a sustainable source of above-average return (Rothberg and Erickson, 2005)."

The study about organizational intelligence concerning the complex organization was initiated by Wilensky in his book in 1967 "Organizational Intelligence: Knowledge and Policy in Government and Industry" which mainly dealt with the mentality and its machinations that distort and omit data necessary for decisions. His examples were drawn from the failures of military intelligence; the Central Intelligence Agency (CIA) and the Federal Bureau of Investigation (FBI); the administration of justice; industrial management; social welfare decisions; and even the "intelligence" required for sanity hearings. From the time Wilensky has published his book until now, the discussion about organizational intelligence has been carried out in very diverse meanings, although all of them refer to the term "ability" or "capability". These differences, for example can be viewed from what they emphasize in organizational intelligence: information processing to get appropriate decision making (Wilensky, 1967), competitive intelligence (Rothberg and Erickson, 2005), business intelligence (Silber and Kearny, 2009), artificial intelligence (Kim, 1995; Unland, 1994; White, 2008), and so forth. That the discussions of organizational intelligence remained very diverse meanings and understandings give an opportunity for researchers to investigate them more deeply and comprehensively in order to get better and more complete understanding. Furthermore, the importance of organizational intelligence also stimulates researchers to explore it. This can be evaluated by analyzing the relationship between organizational intelligence, learning, knowledge, and innovation as summarized in table 1 below:

**Table 1. The importance of OI**

Authors	Explanation
(Cook and Yanow, 1993; Bonthous, 1996; Glynn, 1996) in Kalkan 2005	OI is required for organizational learning to occur and organizational innovation to be generated
(Nevis et al., 1995; Glynn, 1996; Halal, 1997; Schwaninger, 2001; Akgün et al., 2003) in Kalkan 2005	OI refers to the capacity of a corporation as a whole to gather information, to generate knowledge, and to act effectively based on the knowledge it has generated in order to adapt to the environment surrounding the organization
Kalkan 2005	OI is a key enabling force underlying many vital activities and processes dominating organizational life, the processes of knowledge acquisition, new organizational knowledge creation, and knowledge utilization all of which require OI
Simic, 2005	OI comprises combination of knowledge, experience, consciousness and understanding in organizational problem
Halal, 1997	OI is the capacity of an organization to create knowledge and use it to strategically adapt to its environment or marketplace
Bencsik, 2009	The tools of information technology supporting acquisition, storage and use of information and organizational learning as well as knowledge come into being as a result of it, fixing and storing of knowledge in the memory of a company play an important role in the intelligence of organizations and competitiveness of a company
Maranon, 2000	Intelligence could be labeled natural or potential. Furthermore, we should include another type of intelligence, that which we identify by means of IQ tests, a combination of the potentiality and the knowledge acquired in the first years of life and early education
Senge, 1990; Walsh&Ungson, 1991; Weick, 1990 in Glynn, 1996	Implicitness in theories of organizational cognition, such as organizational learning, memory, and sense making, is intelligence, for without it an entity cannot learn, remember, or process information effectively.
Senge (1990) in Glynn, 1996	Intelligence is implicitly at the core of the learning organization; it is what enables a firm to learn from its own experience and the experience of other firms.

From table 1 above, it can be seen the importance of organizational intelligence in the life span of organizations. In the early stage, organizational intelligence can be assumed as a natural or a potential feature that exists when the organization is founded. With the initial intelligence, the organization can learn or generate innovation in order to adapt to the environment and to solve the problem. Without intelligence, the organization cannot learn, remember, or process information effectively. By learning, the organization can get and develop new knowledge. Moreover, by learning and using current knowledge and experience, the organization can improve the intelligence. In other words, intelligence, learning, and knowledge cannot be separated each other in the life span of the organization because intelligence is their core. They form a continuous cycle to increase the organization's performance. Organizational intelligence is one of the important concepts determining the existence of organizational learning process and knowledge in its early stage. Thus the relevance to investigate the organizational intelligence has been established, but do we know what it is? To understand it, therefore, we need to know how we are going to answer this question.

## 2. A Framework to Understanding Organizational Intelligence

At the initial step in exploring and investigating organizational intelligence, we use metaphor by relating organizational intelligence with human intelligence. Intelligence comes from the Latin verb *intelligere*, which means "to understand". There are many definitions of intelligence, e.g.: ability to adapt effectively to the environment, either by making a change in oneself or by changing the environment or finding a new one (Encyclopedia Britannica, 2006); the ability to acquire and apply knowledge and skills (Compact Oxford English Dictionary, 2006). From psychologists' view, intelligence can be defined as the followings: the ability to solve problems, or to create products that are valued within one or more cultural settings (Gardner, 1993); the global capacity to profit from experience and to go beyond given information about the environment (American Psychological Association).

For such a long time, many researchers emphasize on the rational intelligence/RI (Spearman, 1904, Cattell 1943, etc.). This attitude is a legacy of the early 20th century when psychologists designed tests whose primary objective was to measure intellectual or rational intelligence (used to solve logical problems). In the mid-1990s, Daniel Goleman revealed findings in neuroscience and psychology focusing on the importance of Emotional Intelligence/EI (Mayer et.al., 2000; Goleman, 1995). This intelligence triggers empathy, motivation, compassion and ability to respond skillfully to pleasure and pain. Goleman argues that EI is a basic requirement for the use of RI. By the end of 1990s and early 2000s, Zohar and Marshall (2000) introduce a new dimension to human intelligence, namely spiritual intelligence which they claim as the ultimate one (Zohar & Marshall, 2000). Spiritual intelligence is an ability to access higher meanings, values, abiding purposes, and unconscious aspects of the self and to embed these meanings, values, and purposes in living richer and more creative lives. The transformative power of SI distinguishes it from RI and EI. RI primarily solves logical problems whereas EI allows people to judge the situation and behave appropriately. Additionally, SI enables people to ask themselves how they will react in the first place when they are in a particular situation.

As individuals have three types of intelligence (RI, EI, SI), the next question to pose in is whether or not organizations exhibit the same character as human being in terms of intelligence. Before answering this, it is wise to concern about the following statement: "organizations have multiple dimensions of competence" (Albrecht, 2003; Stalinski, 2004). Competence is related to the ability or the capability which both are related to the intelligence. Organizational intelligence should be regarded as a construction composed of different components. For example, perception, cognition, memory, learning, communication, reasoning, culture, information processing, and behavior flexibility are proposed as organizational intelligence components in the literature (Kalkan, 2005). Although all of these authors agree that organizational intelligence consists of many components, but each author conveys these components in a very diverse meaning which undoubtedly confuses their readers. In order to avoid these confusions, a framework is significantly needed to integrally and comprehensively discuss organizational intelligence.

One of the frameworks that is worth applying to analyze organizational intelligence is the General System Theory (GST) framework introduced by Bertalanffy in 1930s. According to Bertalanffy, all scientific phenomena in both natural and social science form a hierarchy: societies (organizations) contain groups, groups contain individuals, individuals comprise of organs, and so on. Each hierarchy has its own unique characteristic and is also incorporated with all the characteristic of lower level. For instance, Gant and Agazarian (2004), by using GST as the basis of their study, develop System-Centered Theory (SCT). It defines a theory of human living systems that provide foundation for understanding the dynamic system which is isomorphic to individuals, groups or organizations, and *all* forms of living human systems. The two major basis in SCT are hierarchy and isomorphy. SCT defines hierarchy as every system in a specified hierarchy that exists in the context of the system above it and is the context for the system below it; whereas isomorphy is defined as similarity in structure and function. In addition, Glynn (1996) and Akgun (2007) posit a framework to analyze organizational intelligence based on GST by stating that intelligence can be considered as multiple levels of analysis: individual, group, or organization. Glynn adopts the multilevel framework outlined by Glynn et.al. (1994) to examine intelligence at both the individual and the systemic levels and to observe the interrelationship of these levels. All in all, according to Akgun (2007), Gant & Agazarian (2004) and Glynn (1996), organizational intelligence can be analyzed based on individual intelligence.

There are some basic assumptions in adapting individual intelligence to organization (Glynn, 1996; Akgun, 2007; Cakir, 2008):

- First assumption is the functional similarity between individual and organizational intelligence. Like individual intelligence, organizational intelligence can be defined as the capacity of processing information towards the goal, interpreting it, decoding it, and transforming it ;
- Second assumption states that "organizational intelligence is adaptive", thus organization can improve its adaptive potential in the environment;
- Third assumption postulates that organizational intelligence offers an explanation for an experiential learning process emphasizing on organizational success and failure

With these three basic assumptions, both individual and organizational intelligence have similarities; however they are not

proportionally equal:

- As a collective property, organizational intelligence is a result of social process (the result of interactions among individuals) (Glynn, 1996).
- Organizational intelligence does not represent the “intelligence” of managers, similar to managerial cognition, nor is it the sum of the individuals (Akgun, 2007; Simic, 2005).

Since organizational intelligence is not identical with, but related to the intelligence of its membership, mechanisms that relate individual and organizational intelligence; they are considered. Based on the examination of the link between micro level and macro level processes, Glynn (1996) identifies the following three types of mechanisms that facilitate the channeling process from individual to organizational intelligence: aggregation (e.g. individual members' intelligence accumulates to become organizational intelligence), cross-level transference (e.g. individuals' intelligence is transformed and codified as organizational intelligence), and distribution (e.g. organizational intelligence is embedded in the structured patterns of thought and action in which organizational members interact and engage). Each of these mechanisms is built on a different set of theoretical assumptions and has implications for the way in which organizational intelligence is measured. However, Akgun (2007) does not agree with the mechanism proposed by Glynn (1996). He is more inclined to the structuration theory suggested by Giddens (1984) to explain the mechanism of organizational intelligence. Organizational intelligence can be actualized by the reciprocal interactions between human agency (individuals) and the structure of social systems (organization).

Based on the explanation above, it can be concluded that understanding and assessing individual intelligence is important to understand organizational intelligence. Therefore, investigation on intelligence at organizational level can be done based on individual intelligence. Moreover, this matter is supported by mechanisms proposed by Glynn (1996) and Giddens' structuration theory (Akgun, 2007). Nevertheless, we cannot adapt the individual intelligence to organization intelligence directly because organization is a collective entity (a result from interactions among its members).

To sum up, organizational intelligence has recently become popular topic in business and academia and has attracted many researchers from various fields of study. Because of such different disciplines and perspectives, the interpretation of organizational intelligence shows a discrepancy, resulting in disorder in the organizational intelligence literatures (Akgun, 2007; Bratianu, 2006; Dayan, 2006, Degraves and Marquina, 2012; White and Djebarni, 2008). Although there are any extensive individual intelligence literatures and can be made as foundations, they are still not enough to lead to organizational intelligence understanding. Nevertheless, the organizational intelligence literatures themselves also have been under investigation. Therefore, many studies in organizational intelligence remain unsolved matters that should be investigated in further studies in order to provide the scholars an opportunity to study more deeply and comprehensively, especially in the specific area.

In order to provide a guidance to investigate organizational intelligence, we proposed an integrated framework. This proposed framework is compiled in order to reduce misunderstanding about organizational intelligence, because prior researches remain as confusions and incompleteness. These confusion and incompleteness mainly relate with the mapping between the dimensions of individual intelligence and the dimensions of organizational intelligence. In addition, it also relates with the mechanism of how individual intelligence becomes clear organizational intelligence that maps each mechanism with each aspect of intelligence; whether each aspect refers to these mechanisms or each aspect refers to different mechanism or even the mixture of them. There are sequential steps to investigate organizational intelligence in an integrated framework:

1. Choose the organization for the object of research, whether a service organization or a manufacturing organization, whether public organization or private organization.
2. Investigate the dimension of individual intelligence in chosen organization
3. Investigate the dimension of organizational intelligence in chosen organization
4. Investigate the mechanism of how individual intelligence becomes organizational intelligence in chosen organization
5. Investigate the flow of organizational intelligence among subsystems in chosen organization.

### 3. Methodology

Organizational intelligence has become popular topic recently in business and academia and has attracted many researchers and practitioners from different fields. However, many studies in such different disciplines and perspectives cause diverse interpretation of organizational intelligence. As a result, it presents a discrepancy resulting in disorder in the organizational intelligence literatures (Dayan, 2006). Therefore, to investigate organizational intelligence it is argued that the adequacy of theoretical guidance cannot be expected to come from the extant theories, because there is still no solid theory discussing about organizational intelligence deeply and comprehensively. Although there are many theories and frameworks from prior researches, it can be argued that setting them aside could be considered. Therefore, we do not use the

existing theory to guide us to perform this research. Related to the availability of a solid theory, the result of this research has possibility to produce a theory that is truly different. Besides being lack of solid theoretical guidance, the nature of organizational intelligence itself is very complex which then increases the complexity of the research in organizational intelligence. The complexity of organizational intelligence lies on the following aspects:

1. The future and the past are uncertain: The future is uncertain because different people in an organization often anticipate dramatically the different futures. The past is also uncertain, because it still remains to be realized but because it is dimly, inaccurately, or differently recalled.
2. The problem of conflict: Organizations seek intelligence in the name of multiple, nested actors over multiple, and nested time period. The preference or identities embraced by some participant are inconsistent preference or identities of other participant.
3. The problem of ambiguity in the evaluation underlying an action: The preferences to be pursued or the identities to be enacted are usually assumed to be clear, stable, and exogenous. In organizations, in fact, they are typically neither clear, nor stable, nor exogenous.

The absence of solid theoretical guidance, the complexity of organizational intelligence, and the need to understand organizational intelligence make researchers explore this topic from the main source, namely the employee of the organization (participant). The relevance of research is not only valued through the selection of topic but also depends on to which the perspective of organization employees are included in the process of the research. Intelligence is one of those concepts that everyone has in mind, so the information regarding organizational intelligence that is based on individual intelligence is inseparable from the experiences, perceptions, and perspectives of the participants. In order to integrate the individual intelligence and the organizational intelligence, a social process is needed as a result of interaction among all of members of the organizations.

Since there is still no solid theoretical guidance, the complexity of the nature of organizational intelligence, the importance role of the participants, and the social process of organizational intelligence justify and lead the use of grounded theory (GT) as an appropriate method (Glaser and Strauss, 1967; Glaser, 1978; Glaser, 1992; Glaser, 1998). Glaser does not provide systematically the reason why GT is appropriate as research methods for the development of process theories in a specific domain. Fortunately, many authors provide the reasons of using GT (Locke, 2001; Martin and Turner, 2006; Parry, 1998), they are:

1. Capturing complexity  
GT is well to capture complexities of the context in which action unfolds, enabling researchers to better understand all that may be involved in particular substantive issue (Locke, 2001). Similarly, Martin and Turner (1986) argue that GT is suited to incorporate the complexities of organizational context-rather than ignore or simplify them-to produce accurate or useful result. This reason is in line with the argument that researchers who use GTA want to discover what the problem is and what processes account for its solution, rather than assuming what should be going on, as required in preconceived types of the research (Glaser, 1978).
2. Linking well to practice  
GT has proven to be especially useful to help organizational members gain a perspective on their own work situations (Locke, 2001). Turner(1983) has used GT to study organization for more than a decade because it has enabled him to “produce theoretical accounts which are understandable to those in the area studied and which are useful in giving them a superior understanding of the nature of the own situation”. The argument mentioned by Locke and Turner is closely related to the idea that, due to its distinguishing explanatory power, GT offers practitioners a new understanding and control over their actions (Glaser, 2001), as it puts a high premium on the relevancy of their experience (Glaser, 1998).
3. Supporting the theorizing of ‘new’ substantive area  
According to Locke (2001), the use of GT is seen as supporting theorizing of ‘new’ substantive areas, because the naturalistically-oriented data collection methods in addition to the theory-building orientation permit the investigation and theoretical development of new substantive areas as they arrive on the organizational scene. It is in line with the direction provided by Glasser (1978), especially in chapter 10, “New Direction in Grounded Theory”.
4. The substantive area is a social process  
Parry conveyed that GT is appropriate to study the social process. This argument is in line with Glaser, that the focus of grounded theory is the identification of the basic social process, the nature of which is the subject of the derived theory (Glaser, 1978, chapter 6). Glaser (1992) has observed that grounded theory, in particular, is useful to “researchers and practitioners in the fields that concern themselves with issues relating to human behavior in organizations, groups, and other social configurations.”

Based on the four reasons above, we consider GT is appropriate for investigating organizational intelligence framework.

#### 4. Conclusion

This paper is a conceptual paper to give a guidance for investigating organizational intelligence in an integrated framework. But until now there are no authors that discuss organizational intelligence in integrated framework, at least to see the connection or relationship between individual intelligence and organizational intelligence. Therefore, we propose an integrated framework to investigate organizational intelligence in sequential steps: choose an appropriate organization, investigate the dimensions of individual intelligence, investigate the dimensions of organizational intelligence, investigate the mechanisms that connect individual and organizational intelligence, and the flow of organizational intelligence among subsystems in organization. Since there is still no solid theoretical guidance, the complexity of the nature of organizational intelligence, the importance role of the participants, and the social process of organizational intelligence justify and lead the use of grounded theory as an appropriate method in investigating this framework.

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## The ISCLO Conference 2014

# LINKING EMPOWERING LEADERSHIP AND CREATIVITY: THE INFLUENCE TO ORGANIZATION CAPABILITY AND ORGANIZATION PERFORMANCE

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### Abstract

This paper provides empirical study of the important role of the creativity competencies and the leadership, related to the organization capabilities, and organization performance. The research is an empirical study to the 30 FMCG industries in Indonesia. The creativity competencies of the leader have a significant impact to the leadership competencies to improve the organization capabilities and the organization performance. The result of the study proven that creativity competencies have strong impact to increasing organization performance through improving the leadership competencies and organization capability, while the leader have a less creativity competencies impacted to the declining of the organization capabilities and leadership itself. This research is very important for business practitioners in order to build organizational capability through increasing leadership and creativity competencies to improve the performance of the organization. While the research approach may limit generalizability, for researchers this study very useful in providing an explanation of the importance of creative capabilities in leadership, so it can be developed into a theory of leadership that is needed currently in order to improve the performance of the organization, and further developed in other industries.

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*Keywords:* Creativity, Leadership, Innovation Culture, Organization Capability, FMCG (Fast Moving Consumer Good).

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### 1. Introduction

If Indonesia will success to address economic challenges such as the threat of inflation, it will become the 11<sup>th</sup>-largest economy in the world, and potentially the next Brazil.( Elkhweet, et.al.2013, Bain and Company). Related to this research from Bain and Company in 2013, the five challenge to be succeed in the Indonesia market are; be clear on where and how to win, deeply understand of the Indonesian consumers, attain the right distribution coverage to reach target consumers, and win the battle for new consumers at each point of sales..

The FMCG main challenge is to compete and win of this issues in above, they should be focus on ; translating global brands for each local market, managing relationships with multiple local retailers, all of whom are competing with one another. So related this strategies they have to understand of culture, a complex organizational structure and effective leadership.( Hay Group, 2013).

The Conventional FMCG strategies will be increasing risk; granularity is key companies that stick to business-as-usual approaches will be increasingly at risk. They will no longer succeed if only implemented of “copying and pasting” the old strategies into new situations. They have to develop a granular understanding of the world around them, and plan the operations strategy to compete in it. First, they have to understand the dynamics of their segments (e.g., their labor, energy, or innovation intensity), and how new trends play against those requirements and will have the potential to redefine sources of competitive advantage (Mayinka et.al.; Mc Kinsey Global Institute, November 2012).

The organization capability of addressing this situation is call a dynamic capability, as per Teece, Pisano & Shuen, 1997, this capability defined as the ability to integrate, build and reconfigure internal and external competencies to address

rapidly changing environments. This organization capability will help to formulate business strategy in providing a competitive advantage to organization in order to improve organization performance.

Leadership role in an organization is very important in achieving of organizational goals in order to achieve a competitive advantage and business sustainability. The creative leaders are needed in leading the organization to ensure that the strategy will be implemented effectively. Tierney et al. (1999) found that effective leader have a strong relationships with employee creativity. (e.g., Amabile et al., 2004; Madjar et al., 2002; Oldham & Cummings, 1996; Tierney & Farmer, 2002, 2004). According to Makri and Scandura's (2009) findings, "operational and creative leadership characteristics are effective predictors of innovation productivity and quality to help business sustainability.

In this paper will assess the role of the leadership and creativity to the operational of organization through dynamic organization capability and innovation culture in an enhancing the business performance, hopefully this paper will be help the business practitioners in improving business competitiveness and performance of their business. Also for the scholars, expected will deeply analyzed for next study of leadership, organization capability and a culture of innovation factors in both of similar industries and or other industries.

## 2. Literature Review

### 2.1. Creativity and Leadership

General leadership, by another widely cited definition, consists of strategic vision coupled with the ability to influence and motivate others through the systems, processes and culture of an organization (Kotter, 1990). In this paper we use the notion of leadership as transformational leadership. The term 'transformational leadership' was first coined by Burns (1978, p. 20) who described transformational leadership as an interaction where leaders and followers raise one another to higher levels of morality and motivation. Transformational leaders tend to affect their followers by linking their followers self-concept with the organization's mission and transforming their values and self-esteem in a way that encourages follower loyalty and respect toward the leader (Kark, Shamir, & Chen, 2003). In return, followers sacrifice their self-interests in favor of organizational objectives, show more willingness to contribute toward achieving organizational goals and strive not to disappoint their leader (Bass & Avolio, 1993; Chen, 2002; Yukl, 2002).

A lot of definition of transformational leadership proposed by the Authors, in the paper will be used the transformational leadership by Avilio & Bass (1985, 2004), and Burn (1978), which is transformational leadership as that which "occurs when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality". The leader exudes power and impacts followers through visionary of the future, which has four components capabilities, those are: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

The other of the essential elements of the high performs individual, team and organizational achievement is creativity (Basadur, 2004). The creativity is 'mindset' of individuals and organizations, which every day always contributes to the creativity and energy of individuals, teams and within the organization (Rickards & Moger, 2000).

West-Burnham (2008) define the creativity in terms of: (i) the use of imagination, insight and originality; (ii) the development of a different product, process or outcome; (iii) the addition of value to an existing product or process; (iv) the use of higher order skills, knowledge and qualities; (v) and the potential to make a difference, to improve, enhance or enrich the organization.

While the leadership is primarily about influence and change. Creative leader will be able to set the tone, the situation and the conditions in which creativity can be growing (Stoll, 2007, 2008). Creative leadership is a form of service leadership' where the main task of leadership is connecting people, ideas and different ways of thinking. It is leadership that develops the ability and capacity of all people in the organization so that creativity, wherever it occurs in any scale, can be captured, supported and enhanced. (Harris, Alma :2009).

Creativity has the capacity to break conventions, the usual way of thinking, to allow the development of a new vision, an idea or a product. The creativity is closely linked to the nature of artistic contribution as expressed in art or cultural productions. (Janáková, Hana:2012)

Fangqi (2007) classified the stage of the management history by five stages, there are :

Stage 1: 19th–20th Century: Rational Management (USA Fordist and Tayloristic contributions provide Production line efficiencies).

Stage 2: Early 20th Century: Incremental innovations (Japanese Total Quality approaches with structural sub-groupings provide further efficiency gains).

Stage 3: Mid-20th Century: Humanistic experiments (European and American efforts to achieve individualized motivation within organizations and for welfare of employees).

Stage 4: Late 20th Century: Organizational Creativity (Institutional efforts to achieve more creative organizational practices and results).

Stage 5: 21st Century: Creative Management (Globalized efforts achieve better diffused and integrated knowledge transfer of creative theories and practices)

Creativity Management is used to describe an alternative approach for business processes, like a strategy development and organizational change at the operational level, the development of new products and innovations and their introduction into the practice (Janáková, Hana:2012)

In this paper we will use the term of creativity, is an organization capability to challenge the basic assumptions everytimes, and always learning of new methods by providing training to other leaders, improve the ability to persuade and influence, as well as using a variety of effective communication ways to ensure success of the organization. (Marianna Makri and Terri A. Scandura, 2009).

## **2.2. Organization Capability**

The Organizational capabilities, is an organization capabilities to deal effectively in a firm-specific way with key organizational problems (Dosi, Nelson and Winter 2000). Capability the organization rather stable; they did not change quickly. Capability the organization gave the company a competitive advantage distinctive, because it has been applied and further developed over a period of time. The condition right now has to change due to the high pressure from the outside like rapidly changing the markets and increasing of the market competition. So the organizations have to change rapidly to adapting the changing environmental condition, this capability namely is a dynamic capability.

The dynamic capability reflecting the ability of firms in creating and sustaining competitive advantage, and as such they may be possessed only by organization that are able to build their own internal and external competences. They are characterized by integration, up building and reconfiguration of strategic skills, while adapting to changing environmental conditions (Johanson, Whittington and Scholes, 2011).

The studies of dynamic capabilities rooted in the resource base (RBV) of the company are developed by Barney (1986, 1991). This perspective has the concept that the combined resources of the organization as a difficult-to-imitate, were able to create a competitive advantage and contribute to the difference between the company's ongoing performance (Hoopes, Madsen and Walter, 2003). RBV theory of dynamic capabilities continue to examine the source of competitive advantage in rapidly changing market, and refers to the companies' ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments (Teece, Pisano and Shuen, 1997). Dynamic capabilities include strategic and organizational processes (Nelsonand Winter, 1982), such as product development, alliance formation and strategic decision making that are deeply embedded in the dynamic organization (Eisenhardt and Martin, 2000).

Is consistent with dynamic capabilities from Teece, the study proposes a set of core components to capture of the effectiveness of undertaking the key processes of dynamic capabilities; these include sensing capability, seizing capability and integrative capability.

## **2.3. Business Performance**

Business excellence can be defined as “excellence in strategies, business practices, and stakeholder-related performance results (Adebanjo and Mann, 2008). Kaynack (2003) found that business excelerce has a positive effect on firm performance, and give the benefit to organizations (Oakland and Tanner: 2008). Saunders et al. (2008), explained the beneficial organization adopted business excellence, is to identify: strengths and opportunities; guides the organization’s continuous improvement effort; co-ordinates a range of initiatives; provides an external measure of performance; educates staff on the characteristics of successful organizations; allows companies to become “world class”; improves organizational performance; allows benchmarking against others.

Business performance measurement and control systems are the formal, information-based routines and procedures managers use to maintain or alter patterns in organizational activities (Simmons 2000). Business performance was measured by perceived financial and market performance (Wu, Yeniyurt, Kim, & Cavusgil, 2006).

## **3. Methodology Approach**

### **3.1. Methodology Approach and Hypothesis**

The methodology approach for this paper we can see in the “Figure.1, in below :

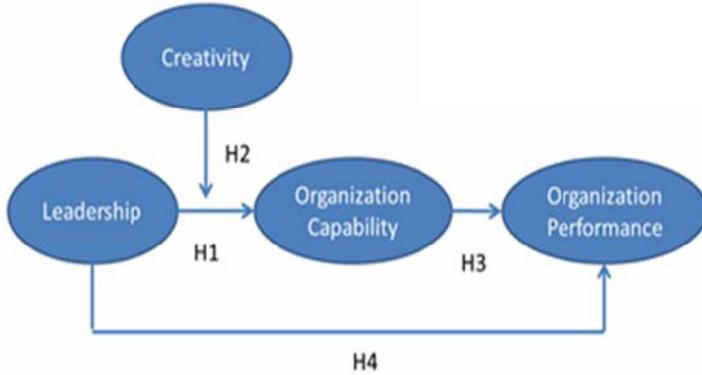


Figure 1: Methodology approach

### **3.1.1. Leadership And Organization Capability**

Creating and maintaining optimal organization requires a commitment of outstanding leadership. The main ways of optimization organization can be explored by optimizing the right leadership. Basically the leader is unable persevering organization without investment and change the mindset of people. In other words, leaders need to make optimization of the culture and capability of the organization in order to maintain an optimal organization.

Study from Ahmad Tipuet. al.(2012), of 523 organizational members in Pakistan. Their findings showed that leadership is positively related to organizational culture and innovation capability. So the hypothesis is :

**H1 : Leadership competencies have positive impact to the organization capability**

### **3.1.2. Leadership And Creativity Competencies, and Organization Performance**

The Leadership has been studied for numerous centuries by hundreds of philosophers and academics, each with a slightly different perspective. Leadership is defined as the act of influencing others by providing purpose, direction and motivation while seeking to accomplish the mission and improvement of the organization (Ruvolo, Peterson & LeBoeuf, 2004).

Study from Hana Janáková (2012), creativity is not only the condition for innovation, but also as a core of competitive factor in contemporary organizations. Creativity and creative management influences business processes and the way how conduct business process management to increasing the performance (Brettel, 2011).

**H2: Creativity its moderating of leadership and organization capability**

The study from Cannock, Francisco Javier Leon (2012), explores the influence of Novatel's firms in Mexico has significant correlation between leadership, the development of its business model, and firm performance.

### **H4: Leadership has significant correlation to the organization performance**

#### **3.1.3. Organization Capability and Performance.**

Organization capabilities, is the organization activity on an on-going basis using more or less the same techniques on the same scale to support existing products and services for the same customer population (Helfat and Winter, 2011), in an enable the organization to make a living in the present (Winter, 2003), and to perform of the organization it self. While dynamic capabilities, on the other hand, are directed towards strategic change and aligning the organization with the environment (Zahra et al., 2006).

Study from Ralf, et.al. (2013), of organizations from Dun & Bradstreet's database (n=2,747), which is representative of large Australian firms. The findings that dynamic capabilities, impacting the positive directly related to firm performance, moderating by organizational competencies and the right organizational structure.

**H3: Organization capability have an positive impact to business performance**

#### 4. Research Finding & Discussion

This study used a random sample of FMCG industries, who are the member in GAPMMI registered in Indonesia. From the 150 industries which produce the FMCG as our population, we have received the 32 questioners, all questioners were received via email, and we were found two incomplete results where the respondents did not answer some of the questions. The two incomplete answered were rejected and only 30 questionnaires were accepted and used for further analysis. The FMCG category is selected in medium with the employees more than 99 peoples.

From the 30 FMCG's companies questioners received, we analyze with the Smart PLS with the results as below.

The validity have been done with results of the loading factors for all indicators  $>0.5$  and the reliability test of all variables has tested, by measuring the Cronbach Alpha, with result in 0.857 to 0.951, which all the result  $>0.6$ . And the detail by variable results can be shown in table 1, in below:

Cronbachs Alpha	
<b>Leadership</b>	0.935651
<b>Organization Capability</b>	0.934776
<b>Organization Performance</b>	0.857883
<b>Creativity</b>	0.951063

Table 1 : Reliability Test

Continue to the analysis of t- statistic for test the hypothesis, the value of t- statistic of every variable relation of this model will be shown as per Figure 2 in below :

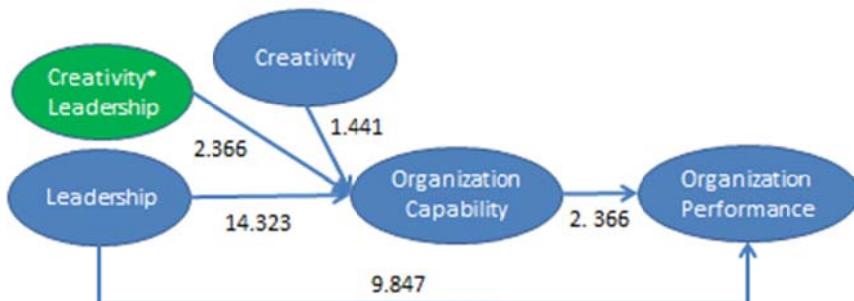


Figure 3: t- statistic value

The result of t-statistic will shown in Table 2 in below, the significant relationship if the t-statistic value with  $> 1.96$

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
<b>Leadership -&gt; Organization Capability</b>	0.446449	0.469742	0.03117	0.03117	14.32323
<b>Leadership -&gt; Organization Performance</b>	0.298845	0.298248	0.030348	0.030348	9.847423
<b>Leadership * creativity -&gt; Organization Capability</b>	0.567135	0.356263	0.415277	0.415277	2.36568
<b>Organization Capability -&gt; Organization Performance</b>	0.176875	0.177811	0.031381	0.031381	5.636402
<b>creativity -&gt; Organization Capability</b>	0.077639	0.078053	0.05388	0.05388	1.440972

Table 2: T-value for Hypothesis evaluation

From the t-statistic value, we have to conclude that the hypothesis which have t-statistic higher than 1.96 is accept and for t-statistic lower than 1.96 will rejected. So the results are:

H1 : Leadership competencies have positive impact to the organization capability	- accepted	H2 :
Creativity its moderating of leadership and organization capability	- accepted	H3 :
Organization capability have an positive impact to organization performance	- accepted	H4 :
Leadership has significant correlation to the organization performance	- accepted	

In this result, we can develop the equation from this model of each variables are (1) creativity, will moderating leadership to giving significant relation to the organization capability, and (2) organization capability and leadership both significantly relation with organization performance, but they will supported each other to giving the significant relation to the organization performance, compare to the leadership independently. In other words, impact of leadership through the organization capability more significant relation to the organization performance, compare with the leadership directly.

Creativity give the moderating effect on the relationship between leadership and organization capability significantly, but creativity did not significantly relation to the organization capability independently.

Related to the leadership, what the leadership style is very important to the correlated the significantly to the organization performance, as per study from Malaysian SME's, by Aziz, et.al. (2013), found that the impact of the leadership style are significant to the performance, so the selecting and developing the leadership style is an essentially important in the organization to increase the organization performance.

## 5. Conclusion

The creativity, leadership and organization capability are essentially need to have in an organization, they will improving the organization performance, the role of creativity will moderation of leadership and organization capability relation. The leadership through organization capability has a stronger impact to the business performance, compare to the leadership independently.

While the creativity independently did not have an impact to the organization capability, but the creativity have an moderating impact of leadership to the organization capability relation. The competency of creativity in organization has a very important role in improving the effectivity of organization's leadership in an organization's ability to grow, without the creativity management, leadership will less effective in developing the organization's capabilities. So that in this paper proved , that to boost leadership, creativity has a very important role or moderation of leadership.

Now business leaders already knew the priority which should be improved which is leadership through creativity management, in a way to improving the business performance. For the researchers this finding also important to drive the future research of the leadership and creativity role to the others area of industries, and evaluate the correlation of other dependent variables.

This research also will help others industries to adopt the concept to surviving from the external and internal pressures of the organization. The deeply and specific empirical study of this model still need to explore in the future research, so we can continuing develop the comprehensive model to improving the business performance.

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# The Effectiveness of Leadership Development Programs: Developing a Research Framework for the Oil Exploration Companies in Abu Dhabi

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## Abstract

In this paper, the authors will explore the determinants of the effectiveness of Leadership Development Programs (LDP) in the literature and will then develop a research framework which is suitable to be used to study the phenomenon at the Oil Exploration Companies in Abu Dhabi of the United Arab Emirates (UAE). Leadership can be defined as the art and science of influencing others for the achievement of organizational goals and objectives. It has become a crucial ingredient in the success and growth of organizations in the world including UAE. With this in mind, the paper also aims to highlight the importance of designing appropriate LDP so as to prepare leaders for the future. Scholars have found that there are several reasons for the effectiveness of LDP in organizations namely the ability of the programs to develop leadership skills and core competencies as well as their ability to inculcate the understanding of complexities of the business among the leaders concerned. The paper will analyze critical factors that could influence the effectiveness of the LDP. This would include the external factors as well as the internal factors to the oil companies in Abu Dhabi. The development of the proposed research framework will form the basis for conducting a comprehensive study on LDP.

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*Keywords:* Leadership Development, Leadership Program Effectiveness; Oil Companies Leadership Development

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## 1. Introduction to Leadership Development Programs (LDP)

The general objective of the UAE strategy (2013) is to “Invest in human resource capabilities and develop leaders” authors consider this as a lead and influence to today’s thriving companies and organizations investment in the young and fresh cohort of leaders that is considered critical in moving towards growth, development and sustainability over the long term. Designed for emerging leaders, LDP endows them with the various skills required to expand their leadership capacity, deepen understanding of core business functions, and improve the ability to lead cross-functional initiatives amid challenging global markets. Such programs inculcate required management and leadership skills within the individuals which make them competent in serving their professional work effectively and efficiently (Mabey, 2013). The LDP creates leadership skills within the individuals who possess the ability to bridge various levels of functions in the organizations. These skills and abilities enable the individuals to manage their work by aligning their personal objectives in accordance to the organizational mission and objectives by connecting strategies. These programs carry the spark to polish the potential within the individuals to grow more in their professional lives and also provide jobs with various exposures along with

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business skill development (Bartlett & Ghoshal, 2013). Therefore, it proves to be useful for both individuals and organizations in the long run. Conventionally, LDP is designed to develop leadership skills of the employees; despite the fact that people are not born with leadership skills, they carry the potential to develop and further fine tune their abilities and become charismatic leaders (Wang & Walumbwa, 2007). However, these programs are designed to polish the hidden leadership potential present in the individuals which helps them in preceding their careers in an efficient manner.

Like all developing countries UAE too face challenges in planning their workforce to ensure continuity at all levels but in particular to the leadership levels (ADIPEC 2012). Therefore, the LDPs are planned and created for experienced first level-to-senior level managers of the organization, and executives responsible for leading staffs across the organization. They provide the individuals with the skills to connect the strategy with everyday work, and lead across functions and up and down of organizational hierarchy (Schein, 2010). These programs carry a great impact on the personal and professional growth of individuals as well as the organization (Mabey, 2013). The oil exploration companies in Abu Dhabi focus much on LPD as they believe in developing and training their internal leaders on their capabilities, which is also a Corporate Social Responsibility (FLC 2013). The management in these companies prefers to hire internally at the first place and then look externally for the required leadership level employees. Their concept is to train the existing employees depending on their potential and capabilities and turn them into a prospective leader. This strategy helps them in retaining the talented employees and it enables the employees to learn with on job trainings which become highly beneficial for their futures. This scenario leads to the research possibility and the research framework that authors have developed aiming to identify the factors that determine the effectiveness of LDP in personal and organizational contexts within oil exploration companies in Abu Dhabi.

### *1.1. Leadership Development Programs in Oil Companies of Abu Dhabi*

Abu Dhabi is the second most populated country of UAE and contributes immensely to the economy. Oil companies work as the backbone for the economy of UAE, as a whole. The state has intensely relied on oil economy as an adequate consumption of the country's main resources tend to hire highly educated and talented individuals who could add more value to their companies along with increasing their revenues rigorously (Mezher et al, 2007). Abu Dhabi's National Oil Company (ADNOC) is an incorporated organization that highlights a great deal on energy and oil. The primary objective of the oil companies is to find, extract and subsequently transfer the product to market through subsidiaries on national and international levels. The oil companies of Abu Dhabi have extensive operations performing primary errands such as exploration and production of oil, refining of oil and processing of gas. They endow the state with support services to market their valued products. Major companies of the world have joined hands with Abu Dhabi's oil companies operations as well as countries economic and manpower development.

Abu Dhabi has the most influential and effective market for oil and energy related sector. It is owned by the state in particular. The government evidently realizes the significance of oil and is highly investing on this sector for constant improvement (Dhabi, 2009). In accordance to Mezher et al, (2011) LDPs are designed from the organizational philosophy to translate the country and organization's strategic plan into action. In this regard, the authors identify the organization as a Mediating Variable (MV) encompasses key performance indicators, recognition, learning methodologies, and translating learning into action. The government's strategic vision and national development plays an influential role in the LDP, the government urges the country and their companies in translating their vision of effective leadership successfully in to action. Companies through various unique developmental approaches focus on developing the leadership competences within all levels of the organization. While the major aim and responsibility of the oil companies in Abu Dhabi is to develop long term and sustainable energy growth, it is also pivotal to develop the national leadership skill pool.

The efforts of these organizations are concentrated on exploring and rigging of undiscovered areas to enhance their businesses not alone in the oil & gas also the leadership potential. The government clearly understands the importance of oil and is highly investing on this sector for constant improvement. However, the management of these companies felt a need of increased leadership with the changing dynamics of the industry. The companies open opportunities for individuals to learn and grow more through LDP in order to make them eligible and more learned (Schein, 2010). The management of these companies design LDP in order to train their individuals in alignment with their planned strategies to accomplish organizational objectives. These LDP are designed for leaders facing globalization challenges in the oil and gas industry like streamlining and consolidating, joint ventures and alliances with new market entry into politically unstable regions, the juggling of multiple global projects partners, and more.

### 1.2. Competency Based Leadership Development

Leadership Competencies are sets of [leadership] behaviors that are instrumental in engaging teams in delivering desired results. (Bartram et al, 2002). In the business environment, they are behaviors that support the attainment of organizational objectives. Leadership competencies are skills and behaviors that contribute to superior performance. Therefore, the focus here is on the behavior and not on the results or consequences of these Leadership factors within the oil exploration companies in Abu Dhabi. LDP initiatives are in line with international best practices and the strategic framework for leadership development that is in place with each of the company and is:

- Structured, with clear programs customized to company's business, and differentiated by level with leaders assisted in transitioning between levels
- underpinned by competency frameworks including business and technical competencies as well as leadership/behavioral competencies

These Competency Frameworks are providing a seamless roadmap from Young Professionals and UAE national graduates all the way to Executive Leadership towards exhibiting the mandatory for managerial candidates to develop global markets awareness in accordance to the strategic objectives of the company. They also form the basis of people management and leadership processes and provide a common language for HOW they go about their daily work, while performance objectives describe WHAT they do (ADNOC 2014). Competency Framework will help to manage and improve performance and continue to build a better, more effective organization to ensure prosperity now and long into the future. Therefore, the authors define the organization as a MV in the research framework.

## 2. Literature Review Methodology

The essential components of the research framework were derived based on the authors' significant observation on the real work scenario and preliminary discussion with Mid-Level Leaders who have recently completed their LDP. This was further researched and refined through the literature review. Most of the Literature Review has been conducted online by obtaining the peer reviewed articles, previous researches in a similar context from database like, EBSCO, Emerald and Mendeley. Books and Periodicals were borrowed from company libraries. Literatures have been selected using various carefully defined search criteria in alignment with the research title and further categorized using "*synthesis matrix*" (NCSU 2006). Through this review the authors are able to define that the Leadership development is identified as a critical element for an organization's long term success (Collins & Horton, 2004). The impetus for this study comes from the United Arab Emirates context wherein substantial investments are being made to provide LDP to develop leadership skills of Emiratis working in the public sector, in accordance with the Dubai Strategic Plan 2015 (Dubai Strategic Plan, 2015). However, these programs predominantly utilize Western leadership development approaches, and tend not to consider the influence of national culture in their utilization - particularly in the selection, training, and professional development of leaders. Cultural influences are particularly important considerations in the leadership development in the UAE, since the country is characterized by unique cultural dimensions, and the development of leaders is a national priority. There is also evidence to indicate that contextual factors, particularly culture, might play an important role in the conceptualization of effective leadership, and would therefore have important implications for the design and content of LDP. The studies have mostly reviewed LDP effectiveness and present a conceptual framework, which identifies key contextual factors including national culture that might influence the design of LDP and their impact on the effectiveness of LDP. The conceptualization draws on the stream of literature relating to national culture and leadership, including the work of Hofstede (1980) and the Globe study (House 2004), as well as other contextual factors, including the unique context of governmental organizations. The study proposes theoretical and practical insights into the impact of contextual factors, particularly national culture, on the effectiveness of LDPs in a research context that has been little studied to date. This conceptual framework takes into account the cultural dimensions of a high-context country (UAE), as well as a public sector setting, extending LDP theory and providing a unique and significant contextual contribution. According to Carbone (2009), who declared that it is obvious from existing literature that just as leadership theories have appeared and developed over time, the concept of LDPs in organizations have also emerged.

## 3. Research Methodology

After having evaluated various research designs, the mixed method research is proposed for the study. Bryman (2008) referred the term as a "multi-strategy research" to describe investigations combining quantitative and qualitative research

and suggests that mixed methods is increasingly the preferred term and in many ways better expresses the fact that in many cases using both quantitative and qualitative research is justifiable. A more comprehensive definition is cited in the same by Creswell and Plano Clark (2007: 5) "Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems that either approach alone". The qualitative and quantitative approaches are widely being used in research of a broad spectrum of the social studies; these methods are employing both the questionnaires and interviews. Perhaps the most commonly used research method (Yuseif, 2010). Three approaches to research are frequently being adopted in accordance to the nature of the study. These approaches are quantitative, qualitative, and mixed methods research. Blaxter et al., (2010, p.59) examined the difference between the two terms: 'methodology' and 'method'. The term 'method' refers to a specific means of collecting data, whereas methodology refers to the strategies surrounding the use of the multiple methods of data collection as required by different types of attempts to achieve higher degree of reliability and validity.

The above mentioned approaches contain their respective philosophical assumptions about knowledge claims, strategies of inquiry, and specific research methods. When the philosophy, strategies, and methods are integrated, they furnish a range of frameworks for conducting research. The choice of which an appropriate approach to be used is greatly based on the nature of the research problem, personal experiences, and the audiences for whom one seeks to write. It is useful to illustrate the major components of each research method such as their use of closed-ended versus open-ended questioning, and their focus for numeric versus non-numeric data analysis (Wu & Little, 2011).

Type	Quantitative	Qualitative	Mixed
<i>Knowledge claims</i>	Post-positivist assumptions	Constructivist assumptions	Pragmatic assumptions
<i>Instrument</i>	Questionnaires	Open-ended questions	Open/closed questions
<i>Data collection</i>	Performance, observation, attitude, and census data.	Interview, document, and observational data.	Multiple forms of data drawn from all sources
<i>Inquiry design</i>	Experimental	Narrative/observation	Questions / interview
<i>Approach</i>	Measuring / rating attitudes	Field observation	Measures/ observations
<i>Analysis</i>	Statistical	Statistical/ opinion	Statistical and text

Table 1: A comparison between the three research methods (adapted from Wu & Little, 2011)

The methodology of the study will be an exploratory qualitative design. There will be two research instruments to be used in this study: 1) the survey questionnaire and 2) the interview protocol. The survey questionnaire will have five parts: Part 1: Respondent Profile; Part 2: Types of LDP; Part 3: Effectiveness LDP; Part 4: The Internal Factors affecting the Effectiveness of LDP and Part 5: The External Factors affecting the Effectiveness of LDP. The questions in the questionnaire for Parts 3, 4 and 5 will be adapted from past researchers' instruments. The researcher will interview individual participants of three different levels of LDP. Each semi-structured interview will be conducted after the completion of their respective programs and will last for approximately 45 minutes each. The interview protocol will have ten probing questions (open-ended) that will be asked of the managers in the organizations concerned. These interviews will be taped and transcribed and later analyzed.

### 3.1. The Research Framework

The graphical representation of the research framework that will guide the study is as follows;

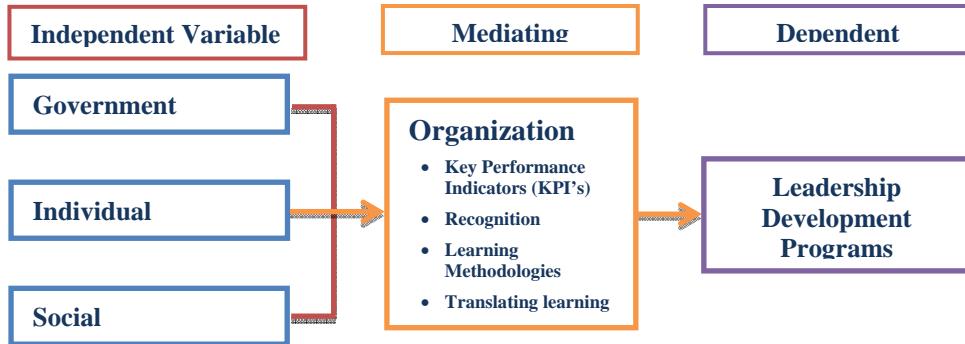


Fig.-1 The Research Framework

This research framework highlights the government, individual and social elements involved in the effectiveness of LDP as an Independent Variable (IV). Following by, organizational measures and individual contributions like the key performance indicators, Recognition, Learning Methodologies and Translating Learning into Action are determined as Mediating Variables (MV). This research framework works as an interpretative lens in determining the relationship between the IV and MV and how it affects Leadership Development Program (LDP) which is framed as Dependent Variable (DV).

### 3.2. Factors Review

A study by Black and Earnest (2009) introduced a comprehensive technique to assess and evaluate LDPs on a post-program basis, measuring the outcomes at the individual, organizational, and community level. The authors built on an assessment framework called EvaluLEAD, originally introduced by Grove, Kibel, and Haas (2005), to create a comprehensive instrument called the Leadership Program Outcomes Measure (LPOM). Black and Earnest (2009) developed the LPOM in order to gain insights into program accomplishments and participants' outcomes. The outcomes of LDPs were determined by using the framework for the EvaluLEAD (Grove et al. 2005). While many evaluation mechanisms have been developed, there are some vital linkages missing, such as an integrative examination of cultural implications and contextual impact.

Also, Fullard (2006) stated that one of the most powerful frameworks for evaluating the effectiveness of training programs, which has been used for forty years, has come from Kirkpatrick (1959). The Kirkpatrick model is based on four levels which are reaction, learning, behavior and results. Carbone (2009) employed Kirkpatrick's (1994) model and included group interviews, observations, and individual interviews with participants, their supervisors, peers and subordinates. The author conducted the evaluation at the first three levels of Kirkpatrick's model and provided a measurement of the results of the LDPs. As mentioned earlier, the first level of Kirkpatrick's model is reaction, and it was assessed based on the data given by participant interviews. During the interviews, participants were asked about their overall feelings of the program. The second level is learning and the outcome was assessed by asking participants about the core-competencies of the firm, particularly if they had any awareness of it. Transfer of training is the third level and it was assessed by determining the extent to which participants experimented with change and transferred knowledge after attending the program. The forth level which is results, was not conducted in Carbone's study. That's because of most training efforts are not able of directly impacting the forth level measures (Alliger, Tannenbaum & Bennett, 1997). In accordance with one study (Tyler 2002), companies evaluate training at the reaction level most often (78 percent), followed by learning (32 percent), behavior change (9 percent), and results (financial value) (7 percent). Although the Kirkpatrick model has been widely used, the model was criticized in the study of Holton (1999), who stated that it does not appear to be efficient in measuring the effectiveness of a leadership program. That's because of its emphasis on reactions in evaluation and neglected the use of the other levels. Dionne (1996) claimed that there is a significant complexity involved in evaluating the impact of training, and claim that this "may be because of the lack of a unifying model and theory of research" (p. 280).

While the literature on evaluation indicates that, although we can evaluate LDP effectiveness at multiple levels as suggested by Kirkpatrick, it may be necessary to contextualize the evaluation measures in view of the potential impact of various contextual factors, including culture, on LDP effectiveness. Finally, it is proposed here that the outcome of the evaluation itself can provide necessary feedback to improve the LDP effectiveness and sustainability of the newly acquired behaviors and skills, besides offering important insights into LDP evaluation.

The factors that are Independent and Mediating will be researched to analyze the impact that creates on determining the effectiveness of LDP within oil exploration companies in Abu Dhabi; These factors, the sub-factors and its variable classification in the table – 1 below will be researched to determine the key factors that impact the LDPs in the Oil exploration companies in Abu Dhabi.

Table 1 – Factors Review

Determinants to Study	Sub – Factors	Description	Variable Classification
Government	• Strategic Vision	Government's vision, economic diversifications (from Oil to Non-oil) compelling to set Emiratization Target/Leadership Development	Independent
	• Diversification		
	• National Development		
Individuals	• Learning Agility (Kornferry (2013))	Goldstein & Ford (2002: 110) warn "before trainees can benefit from any form of training; they must be ready to learn. Goldstein & Ford (2002) presented that beyond traditional motivation, willingness for personal change could improve the predictive powers of assessing training outcomes.	Dependent
	• Accountability		Independent
	• Translating learning in to action (Zenger et al 2014)		Mediating
Social	• National Culture (Ilies et al)	Hofstede demonstrated that there are national and regional cultural groupings that affect the behavior of organizations and identified four dimensions of culture (later five) in his study of national cultures	Independent
Organization	• Leadership Development Philosophy (KPI's, Policy, Budget, Commitment/Sponsorship) (Baumgartel, Reynolds, & Pathan, 1984; Hand, Richards, & Slocum, 1973)	Any successful Leadership Development starts from the organizations philosophy that translates both Country and Organizational strategic plan	Mediating
Program Design / Provider	• Program levels /Pre Program Diagnostics	The program features serve to bridge what is learned in the LDP with the day-to-day problems experienced in the workplace and post program transformation	Mediating
	• Accreditation/Recognition (international)		Mediating
	• Facility/Facilitation/Facilitator		Dependent
	• Clarity of Program Goals and Process		Mediating
	• Learning methodologies		Mediating
	• Post LDP: transfer of training to Job Performance/Tracking of post completion		Mediating

Through the table-1 above the authors indicates each of the possible factors and determinants that play an important role in designing the LDP within the oil exploration companies of Abu Dhabi. As stated by (Glatthorn et al, 2005) the LDP are designed to benefit both, the country as well as the organization. It is also proposed to understand the impact of culture on the leadership development program at the Oil Exploration Companies in Abu Dhabi could be determined in accordance to the Hofstede theory of culture.

As argued by Mezher et al. (2011) employees can significantly benefit from any form of training; however they must be willing to incorporate the offered training into action. The companies endow their employees with regular trainings in order to create an environment of continuous improvement while dealing with the investments and implementation of strategic objectives associated to the companies (Mezher et al, 2011). The oil exploration companies of Abu Dhabi are highly recognized for their excellent and result oriented performance towards developing the leadership skill pool in the oil and energy sector (ADNOC 2013). Therefore, the organization acts as mediating variables encompassing key performance indicators, Recognition, Learning methodologies and Translating learning into action.

### *3.3. Effects of KPI's on Leadership Development*

Leadership is most often viewed as the influence function of Management. Great leadership recognition is built on motivation (Schmidt, 2001). To create the most successful leadership in the oil companies of Abu Dhabi, recognition will help in finding the drive in each of the leader. Leaders are those who push for the goal, who focus on moving things forward. Employees often like leadership recognition in the form of public appraisals or to be called up on stage.

The recognition of leaders is important as it will let the leaders know that their efforts are appreciated and will help them build sense of ownership and belonging in the oil companies of Abu Dhabi. Recognition will enhance their morale and loyalty towards the oil company. This will also increase their motivation which will ultimately enhance their leadership qualities. All these factors will develop the leadership.

When these recognition and learning practices are implemented effectively, they help develop leadership skills. The learning methodologies require the leaders to action those learnings to their current responsibilities in order to develop their leadership skill. Translation of these learning actions will deliberate the practices to develop their leadership. The method of experiential learning through participation will realize their leadership abilities to more specific challenges of the oil companies of the Abu Dhabi. On- the-job training will help them learn and develop their skills in conflict management, solving of problems and team building. This form of learning methodology can be highly relevant and impactful for the oil companies of Abu Dhabi.

The learning methodologies will develop leaders and help them pertain to various situations and they will be able to gain knowledge that will enable them to find solutions for the problem effectively and efficiently. The training programs and experiential learning through participation or the combination of both the learning methods can be a successful tool for the development of leadership.

## **4. External factors**

External factors are those factors that are the outside factors that impact the overall business in achieving its strategic goals. There is almost no possible situation where a leader does not have to face any external challenges. On top of the political and economic factors, leaders in oil exploration companies of Abu Dhabi face external challenges like prestige within the community and developing interpersonal communications with the dominant expat society. To some extent, the measure of any leader is how well he/she can deal with the constant succession of crises and minor annoyances that threaten the mission of his/her company (Rabinowitz 2013). If the leader is able to get a solution, resolve conflicts and take possible advantages of the opportunities in a calm manner and minimum of annoyance, most of the issues will not be noticeable by the competitors, says the editorial of economic times. If the leader fails to handle the external challenges, the company would also not be able to do so either. The development of leadership can be affected by some external factors such as sociological factors, economic & political factors and technology. In the globalization of business world of oil companies of Abu Dhabi, the leaders face an increasing need to understand the delicacy and variation of leadership as it is exercised in different cultures. Leaders, in order to be successful organizational leaders, need to understand the culture and demographics of the organization and trends in the marketplace. Understanding of culture and demographics is most important characteristics of leadership development since Abu Dhabi is a diversified society in terms of expatriate population.

There are various attributes that reflect leadership as universally endorsed contribution towards outstanding leadership. The attributes can be trustworthiness, effective communication, motivation to encourage employees and to be seen as a great leader. However, Communication skill is a pivotal competency of the sociological factors that is important for the development of the leadership. Economic and social factors play a vital role in the development of leadership. Economies when grown help the leaders to expand the company. One of the reasons may be that the oil companies in Abu Dhabi then can afford higher salaries and establish better working environment to motivate employees. Whereas, when the resources are scarce, leaders may find that their roles are scaled back and they face difficulty in developing their leadership skills. The development of economy and business climate can help in the integration of oil exploration companies of Abu Dhabi to further expand in the global economy.

This could be possible by attracting foreign investors and providing facilitation of human capital development all the way through investments with international partners. Political factor is one of the external factors that can either flourish the industry when maintained or badly affect the development of leadership if the situation is worsened. If the economic

recession clamps down, the production in the oil company will be affected, which will eventually affect the training and development of leadership in the oil companies. Market fluctuations based on politics, terrorism attacks, wars and currency devaluation can eventually trickle down the oil exploration companies of Abu Dhabi. Technology in terms of innovation and adoption can change the business environment of oil exploration companies of Abu Dhabi drastically. Leaders must adjust their management styles to help the companies adapt to technology. The attributes of research and development will help leaders to create innovative new techniques that will make operations easier. The use of technology is proving to be a ladder in development of leadership in oil companies of Abu Dhabi. The change in technology can modify the way of information and knowledge accessed and delivered. The implications will impact the development of leadership and will communicate the use of technology in the development of leadership. As an external factor technology can be useful in some aspects of leadership development like integration and experiences of coaching with technology based tools and processes in oil industry of Abu Dhabi.

## 5. Conclusion

After a comprehensive review of the literature on the concepts related to leadership development, the research framework was developed and discussed. The framework was targeted to be used in the study of the LDP within oil exploration companies in Abu Dhabi. The research framework reflects the needs of the leaders combined with the implementation of learning principles and translating those learning into actions. The paper also highlights individually each variable relevant for the said framework. In addition, the paper emphasizes the importance of studying the LDP within the oil companies of Abu Dhabi. The said companies seem to believe that these LDPs will enable their employees to learn effectively. Furthermore the research framework also identified the role of organization as a mediating variable in helping to determine the relationship between independent variables and their influence on the effectiveness of the LDP. The research that will be conducted using this research framework will evaluate the effectiveness of LDP, which will significantly contribute in the development of LDP in the future. Also the research results will contribute to the organizations immensely in analyzing the motivation of the leaders, which can further be emphasized in the research to be conducted. The factors stated in the research framework will probably help in attaining useful and reliable results for academic as well as practical purposes. The paper has identified some external and internal factors that are considered critical by past researchers in the study of LDP in organizations.

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# The Influence Of Learning Orientation And Leader Heuristics Transfer On Employee Creativity With Creative Self-Efficacy As Mediating Variable

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## Abstract

The purpose of this research is to examine the effect of learning orientation and leader heuristics transfer on employee creativity, and to examine their effects on employee creativity through employee creative self-efficacy. Learning orientation provides another perspective to look at creativity. Leader heuristics transfer is a new aspect of leadership. It is developed beyond the intrinsic motivation mechanism. Leader heuristics transfer is the delivery of skills-based leadership experience through rules of thumb. This research was conducted at operational and maintenance department of telecommunication industry in Indonesia. Questionnaire was distributed to 194 employees, but in this study only 132 could be used. Two statistical techniques were used in this study. They were multiple regression and hierarchical regression techniques. Multiple regression technique was used to test the influence of learning orientation and leader heuristics transfer on employee creativity, while hierarchical regression technique was used to examine how creative self-efficacy mediates the effect of employee learning orientation and leader heuristics transfer on employee creativity. The result shows that learning orientation has no significant effect on employee creativity. Another result shows that leader heuristics transfer is significantly related to employee creativity, and has positively significant effect on employee creativity. The variable of self-efficacy does not significantly mediate the effect of creative learning orientation and heuristic leader transfer on employee creativity.

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**Key words:** *learning orientation, leader heuristics transfer, creative-self-efficacy, employee creativity, telecommunication industry*

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## 1. Introduction

Employee creativity is one of the components of the organization that is believed to make an important contribution in innovativeness and sustainability of organization (Amabile, 1988 Ford, 1996). Initiation and implementation of creative ideas can be used to respond to market changes, and to capture opportunities so that companies can adapt, grow, and compete (Oldham & Cummings, 1996; Nonaka & Takeuchi, 1995). Creativity is also believed to be useful for individuals, teams and organizations (Oldham & Cumming, 1996). Gong, Huang, and Farh (2009) found a positive relationship between employee creativity and employee performance. Gilson, Mathieu, Shalley, and Ruddy (in Cheung, 2011) also found a positive relationship between creativity and performance on the team level. Employees with a creative idea can apply these ideas in their work, develop and transfer these ideas to other employees within the organization to use and re-developed this idea (Shalley & Gilson, 2004; Shalley, Zhou, & Oldham, 2004). Because of the many benefits of employee creativity to the organization, it is important to know the factors that can

affect the creativity of employees in the organization (Shalley & Gilson, 2004; Zhou & Shalley, 2008).

Creativity is a function of employee personal character, contextual character in which he worked and the interaction of these two characters (Woodman, Sawyer, & Griffin, 1993; Shalley, Zhou, & Oldham, 2004; Zhou & Shalley, 2003). Personal factors are factors that exist within the individual that can affect creativity whereas the social and contextual factors are the dimensions of the work environment that could potentially affect the creativity of employees, but not part of the individual (Shalley, Zhou, & Oldham, 2004).

One of the personal characters thought to affect creativity is employee learning orientation. Learning and knowledge as one important component is believed to employee creativity (Amabile, 1988, Amabile & Grykiewicz, 1987; Shalley and Gilson, 2004). The use of learning orientation will provide another perspective of looking at creativity, the learning perspective. But so far studies looking at creativity from the learning perspective is still relatively small (Gong, Huang, & Farh, 2009; Hirst, Van Knippenberg, & Zhou, 2009). There are few studies examining the relationship between learning orientation and employee creativity. Gong, Huang, and Farh (2009) and Hirst, Van Knippenberg, and Zhou (2009) found the positive effect of learning orientation on employee creativity. While Redmond, Mumford, and Teach (1993) found no significant relationships between learning orientation and originality solutions of specific marketing tasks.

In addition, a contextual factor that is often used as an antecedent of employee creativity is leadership (McMahon & Ford, 2013; Cheung, 2011). However, from many types of leadership that have been studied, intrinsic motivation is the most frequent mechanisms used to explain the relationships between leadership and employee creativity (McMahon & Ford, 2013). Actually, there are other mechanisms that can be used to explain the relationships between leadership and employee creativity, i.e. domain-relevant skills and creativity relevant processes (Amabile, 1988).

One type of leaderships that is developed by a mechanism beyond the intrinsic motivation is the leader heuristic transfer developed by McMahon and Ford in 2013. Leader heuristic transfer is defined as the delivery of skills-based leadership experience through heuristic rules of thumb (McMahon & Ford, 2013). Transfer articulation heuristics includes the heuristics of a leader used for pattern recognition, discovery and problem-solving that can be generalized across settings and context of the decision (McMahon & Ford, 2013). Therefore, his new theory of leader heuristics transfer in leadership theory and its influence on employee creativity is needed to provide additional results for the theory of leader heuristics transfer on employee creativity.

Another variable used in this study is a creative self-efficacy. Gong, Huang, and Farh (2009) stated that previous researches are inconclusive possible due to the influence of other variables which connect learning orientation with creativity. Gong, Huang, and Farh (2009) used the variable of creative self-efficacy as a mediating variable for learning orientation on employee creativity. Creative self-efficacy is the belief that one has the ability to produce creative outcomes (Tierney & Farmer, 2002). The use of creative self-efficacy is also supported by Payne, Youngcourt and Beaubien (2007) who stated that a high learning orientation will enhance the specific self-efficacy, which in this study is called the creative self-efficacy. In addition, Tierney and Farmer (2002) found positive associations between creative self-efficacy and creativity. Similarly, the Leader Heuristic Transfer will enhance subordinates creative self-efficacy. Tierney and Farmer (2002) stated that the leader can affect self-efficacy of creative subordinates with modeling and verbal persuasion methods.

Based on the research gap described above, the aim of this study is to provide an empirical examination of learning orientation, leader heuristic transfer and creative self-efficacy on employee creativity. This study is still very relevant and needed to provide more convincing evidence.

This paper will be divided into four main topics, they are: background, hypotheses development, research method, results and discussion, and conclusion.

## 2. Hypotheses Development

Orientation learning is a concern and dedication to develop self-competence (Dweck, 1986; Dweck & Leggett, 1988). Individuals with learning orientation are characterized by the ability to view and forged and enhanced attention to the level of mastery (Dweck, 1986; Dweck & Leggett, 1988). They tend to increase their knowledge and to learn about new ways and things (Dweck, 1986; Dweck & Leggett, 1988). A person with a learning orientation will support the

acquisition of knowledge that will be able to create creative things in their work environment (Brett & Vandewalle, 1999; Gong, Huang & Farh 2009).

Ames and Archer (1988) stated that individuals with a learning orientation will tend to look for challenges that give them an opportunity to learn. Individuals with a learning orientation would seek self-improvement information from their co-workers or their connections and they are more knowledgeable or experienced to help themselves identify the areas for improvement (Payne, Youngcourt & Beaubien, 2007). They will be able to produce creative performance by continuing to look for alternative ways to improve practices, or find a completely different way (novel) to complete the given tasks (Cheung, 2011).

When faced with setbacks, individuals with learning orientation will address the setbacks with creative efforts, persistence, and a winning effort (Cheung, 2011). Relevant creative process to create new ideas will be created, such as trying to use different strategies to solve the problem. They maintain concentration and cognitive resources to generate creative ideas to solve complex problems (Cheung, 2011).

From various descriptions summarized above, the hypothesis can be constructed as follows:

*Hypothesis 1: Learning orientation has a positive effect on employee creativity.*

## 2.1. Influence of Leader Heuristics Transfer on Employee Creativity

Amabile (1988) quoted in McElvaney (2006), formulated three main components of creativity, i.e.: the domain relevant skills, creativity relevant processes, and task motivation. One of the processes that affect the relevant creativity is creativity heuristics to generate new ideas that are unique. Heuristics can be interpreted as a simple rule of thumb that focuses on catching opportunities in a process (Bingham, Eisenhardt & Davis, 2007). Individuals use heuristics to help themselves make creative outcomes (McMahon & Ford, 2013).

Heuristics can be used by the man himself and or can also be adopted by others, although in different ways or in different challenges. A leader can collect and use the heuristics for himself/herself and he/she can pass it on to their employees through the heuristics transfer (McMahon & Ford, 2013; Argote, McEvily & Reagan, 2003). This may also apply to transfer heuristics owned by the leader to his employees. Transfer articulation heuristics include the heuristics of the leader used for pattern recognition, discovery and problem solving (McMahon & Ford, 2013). Leader heuristics transfer focuses more on improving the ability of employees to solve the problem by introducing the patterns of problems, the process of finding the problem, and to provide solutions for solving those problems. Leader heuristics transfer will engage employees in recognizing situations and problems that occur. Leader heuristics transfer can provide creative training. It can improve the employee experience by teaching creative problem solving techniques, and help to develop new cognitive and heuristic way to more creative problem solving (Amabile, 1988). Leader heuristics transfer will improve cognitive framework and the ability of employees to generate new heuristics that can be used in solving the problems faced by employees. Increased cognitive abilities will help employees in the face of new circumstances or unanticipated situations (McMahon & Ford, 2013).

From the description above, the hypothesis can be constructed as follows:

*Hypothesis 2: Leader heuristics transfer has a positive effect on employee creativity.*

## 2.2. Creative Self- Efficacy Mediating the Effect of Employee Learning Orientation on Employee Creativity

Why can learning orientation enhance employee creativity? The question indicates a process through which learning orientation enhances employee creativity. Gong, Huang, and Farh (2009) believed that creative self-efficacy comes from learning orientation. This was in line with Payne, Youngcourt and Beaubien (2007) who stated that high learning orientation will enhance the specific self-efficacy. Tierney and Farmer (2002) also stated that a person will tend to be creative, if they have a creative self-efficacy.

Gong, Huang, and Farh (2009) stated that learning orientation is appropriate to establish creative self-efficacy for several reasons First, learning orientation is based on the incremental ability conceptions which assume that ability is malleable and soft, and it can be improved (Dweck, 1986; Dweck & Leggett, 1988), and the conception of creative self-efficacy is a construct (Payne, Youngcourt & Beaubien, 2007). Individuals with learning orientation will support the acquisition of new knowledge and skills to improve their competence (Brett & Vandewalle, 1999). Employees who understand the nuances of their work and the creative self-efficacy are more likely to be

able to produce creative performance (Tierney & Farmer, 2002). Second, learning orientation focuses on the development of competencies. Learning-oriented employees tend to accumulate the mastery of successful experience. The capital about mastery of successful experiences will encourage employees to have a creative self-efficacy, and they are more likely to produce creative results. Third, when faced with setbacks, individuals with learning orientation view failure as lack of effort or the use of less efficient strategies and see that the increase in business will provide a better end results. Properties owned by individual learners will help nurture creative self-efficacy to produce creative results. By focusing on improving competencies, individuals with learning orientation will be able to maintain creative self-efficacy and generate creativity (Gong, Huang, & Farh, 2009). When someone has a creative self-efficacy, he/she will be able to produce creative performance (Tierney & Farmer, 2002). Creative self-efficacy is emerged as the momentum in a strong self-efficacy as an individual attempts to deal with challenging situations (Tierney & Farmer, 2002). Employees will not engage in the creative behaviors when they see the creative performance will not work (Ford, 1996). Therefore one's creative self-efficacy is very important to motivate someone to do creative performance. From the description, the hypothesis can be constructed as follows:

*Hypothesis 3: creative self-efficacy mediates the positive effect of learning orientation on employee creativity*

### 2.3. Creative Self-Efficacy Mediating the Effect of Leader Heuristics Transfer on Employee Creativity

Although the mechanism of leader heuristics transfer increases employee creativity to improve the skills of pattern recognition, discovery and settlement of the problem, but it does not rule out the existence of other mechanisms linking the two constructs. This research proposes to use a creative self-efficacy as a mediating variable between leader heuristics transfer and employee creativity. Leader is a potential driving force in shaping employee creative self-efficacy (Tierney & Farmer, 2002). A leader has an important role in shaping the confidence and trust of our employees to shape the behavior that produces creativity (Amabile & Gryskiewicz, 1987). Leader heuristics transfer will arm employees with more skills for recognition, discovery, and problem solving (McMahon & Ford, 2013). Through the guidance, the leader heuristics transfer will enhance the mastery of one's experience (enactive mastery) that will increase employee creative self-efficacy to produce creative performance.

Leader heuristics transfer can improve employee creativity through creative self-efficacy through indirect experience (vicarious experience). Bandura (1997) stated that the vicarious experience can boost a person's self-efficacy with observational learning, i.e. by observing the behavior of others (models) and looking at the consequences derived from the behaviors. Leader heuristics transfer affects employee creative self-efficacy by transferring knowledge and teaching effective strategies to cope with the various demands of the environment that will foster self-confidence to be able to do creative performance. This is in line with the concept of leadership where leader heuristics transfer will transfer the heuristics to employees to improve their skills through patterns of recognition, discovery and problem solving (McMahon & Ford, 2013). Increasing employee skills acquired will increase self-efficacy in generating creative performance.

Leader heuristics transfer can also provide verbal persuasions (suggestions and advice) to employees in order to improve their skills through pattern recognition, discovery and problem solving. Therefore, the employees with creative self-efficacy can create creative outcomes. Verbal persuasion can be used to persuade employees because they have the ability to achieve the goals they want to achieve. People who have high persuasive ability will have more confident to accomplish a given task than those who do not have verbal persuasive ability.

When someone has a creative self-efficacy, then he or she will be able to produce creative performance. This is supported by Ford (1996) who stated in a creative act, that the success of employee confidence is a core component of innovation. If employees see that there is hope that the creative performance will be successful, then the employee will engage in a creative act. Therefore, the possession of creative self-efficacy would encourage someone to do creative performance (Tierney and Farmer, 2002; 2004).

From the description above, the hypothesis can be constructed as follows:

*Hypothesis 4: creative self-efficacy mediates the positive effect of leader heuristics transfer on employee creativity.*

### 3. Research Methods

Respondents used in this study were individuals who work in operations and maintenance division of the telecommunications industry in Indonesia. Sampling in the telecommunications industry was based on the characteristics of work which allowed the emergence of employee creativity at work. Employee creativity might arise in the process of handling the existing problems in this department. In addition, the selection considered that employees who work in this section had the opportunity to create greater heuristics. This happened because the types of work were not glued to the use of SOPs (Standard Operating Procedure) to resolve problems that arise. The type the industry with rapid technological development also supported the use of employee learning orientation.

In this study, data were collected through a survey method, by distributing questionnaire directly to the sample. The questionnaire consisted two parts. The first part of the questionnaire (to be filled out by employees) consisted statements regarding to employee learning orientation, leader heuristics transfer and creative self-efficacy. The second part (to be filled out by the supervisors) consisted of statements regarding employees' creativity.

Data collection through the questionnaire was conducted for 2 months from June to July. The questionnaire was distributed to 194 employees including 60 supervisors. Out of 194 staffs, the total of 160 were returned (the response rate was approximately 82.5%). From those returned, 28 were not valid because of various reasons (such as some items were not answered orally; items were answered with the same scale). This meant that the respondents for this research were 132 employees, including 57 supervisors. Statistical technique used for data analysis was hierarchical regression analysis by using the software of SPSS version 16.0.

The scale used in the questionnaire was a Likert's Scale of 1 - 5 (1 = strongly disagree, 5 = strongly agree). The operational definitions of the variables used was as follows:

- a. Employee learning orientation is an individual recognition that their competence can be developed through the mastery of skills, knowledge and new situations. The items used to measure this variable were selected and modified from the measurement tools initially developed by Elliot and Church (1997). Examples of the items are: 1) I want to learn as much as possible from my work; 2) I hope to get a broader and deeper knowledge when I finish my work.
- b. Heuristic transfer is defined as the degree of confidence of the employees that their supervisors deliver heuristics to help assist them in recognizing a pattern, find and resolve the problem. The items to measure this variable were modified from the five-point questions developed by McMahon and Ford (2013). Examples of items are: 1) my boss increases my ability to recognize more detail in the environment around me; 2) my boss taught me the process that I can apply to the tasks that I face.
- c. Creative self-efficacy is defined as the beliefs of the individuals that they are able to produce creative results. The items used to measure this variable are those developed by Tierney and Farmer (2002). Examples of the items are: 1) I feel that I can generate new ideas; 2) I have a talent or knack to develop my idea or ideas of others.
- d. Employee creativity is defined as the perception of supervisor related to the development of products, processes, and procedures creatively generated by employees. Items to measure this variable were modified from those developed by George and Zhou (2001). Examples of the items are: 1) the employee is proposing new ways to achieve the goals or objectives; 2) The employee filed new ideas and practical to improve performance; 3) the employee is proposing creative solutions to problems encountered.

Control variables used in this study were age, length of work between superior- subordinate, and level of education. Ages became one control variable because it was considered as one of the factors that affect the creativity of employees (Gong, Huang, & Farh, 2009). The older person will have a negative effect on employee creativity (Lehman, 1953 in McMahon & Ford, 2013). Finally, long working between superior-subordinate will probably affect the assessment superiors to subordinates. Hence the old superior-subordinate relationship is used as a control tool (Shin & Zhou, 2003). The level of education in this study was also controlled because education may affect the important domain knowledge or expertise relevant to creativity (Gong, Huang, & Farh, 2009; Tierney, Farmer, & Graen, 1999).

#### 4. Result and discussions

Testing validity of the constructs was done by using confirmatory factor analysis twice. The second round was done by removing the learning orientation question items 5 and 6 because they had cross loading. The second round of testing resulted the value of KMO (Kaiser- Meyer-Olkin) of 0.845 and Bartlett's Test of significance of 0.000. The reliability test was done by looking at Cronbach's Alpha value of each variable. The test results show that all of the instruments used are reliable because the value is above 0.6 (Hair, Black, Babin, & Anderson, 2010). The results of validity and reliability tests results can be seen in Table 1.

**Table 1**  
Results of Validity and Reliability Tests

Variable	KMO MSA	Range of Loading Factor	Cronbach's Alpha
Learning orientation	0,845	0,728-0,812	0,844
Leader heuristic transfer		0,658-0,788	0,820
Creative self-efficacy		0,717-0,793	0,841
Employee creativity		0,570-0,774	0,916
Learning orientation		0,728-0,812	0,844

Source: Primary data were processed (2013)

Table 2 presents the results of descriptive analysis consisting of mean, standard deviation, and coefficient between variables. Table 2 shows that there is a correlation between variables. Employee learning orientation correlated significantly with the leader heuristic transfer ( $r = 0.279$ ,  $p < 0.01$ ), creative self-efficacy ( $r = 0.451$ ,  $p < 0.01$ ), but not significantly correlated with employee creativity. Leader heuristic transfer significantly correlated with creative self-efficacy ( $r = 0.184$ ,  $p < 0.05$ ), and the creativity of employees ( $r = 0.254$ ,  $p < 0.01$ ). While the creative self-efficacy was also positively correlated with employee creativity ( $r = 0.194$ ,  $p < 0.05$ ).

Table 2 Descriptive analysis

Variabel	Mean	Std Dev	1	2	3	4	5	6	7
Age	42,13	10,65	1						
Tenure	8,42	9,39	<b>0,506**</b>	1					
Eduction	3,54	1,73	<b>-0,525**</b>	<b>-0,916*</b>	1				
Employee Learning Or.	4,51	0,46	-0,86	-0,034	0,086	1			
LHT	3,95	0,59	<b>0,225**</b>	<b>0,173*</b>	<b>-0,181*</b>	<b>0,279**</b>	1		
Creavite self-efficacy	4,01	0,57	-0,021	-0,034	0,161	<b>0,451**</b>	<b>0,184*</b>	1	
Employee creativity	3,91	0,43	<b>0,213*</b>	<b>0,202*</b>	0,034	0,040	<b>0,254**</b>	<b>0,194*</b>	1

Source: Primary data were processed (2013)

\*\*) Significant at 0,001

\*) Significant at 0,05

Hypothesis 1 and 2 were tested with multiple regressions. Table 3 presents the results of multiple regression tests to

see the direct effect of the independent variables to the dependent variable. The results show that learning orientation is not significant to employee creativity ( $\beta = -0.20$ ;  $t = -0.231$ ;  $Sig = 0.808$ ), while the leader heuristics transfer has a significantly positive effect on employee creativity ( $\beta = 0.233$ ;  $t = 2.578$ ;  $Sig = 0.011$ ). These results indicate that hypothesis 1 is not supported, whereas hypothesis 2 is supported.

Tests for hypotheses 3 and 4 were performed by using hierarchical regression analysis. The test was performed through three stages (Baron & Kenny, 1986). Table 4 shows the results of hierarchical regression analysis. The result shows that in the first stage of testing, learning orientation has a positive and significant impact on creative self-efficacy ( $\beta = 0.419$ ;  $t = 5.089$ ;  $Sig = 0.000^{**}$ ), while leader heuristics transfer has no significant effect on creative self-efficacy ( $\beta = 0.084$ ;  $t = 0.995$ ;  $Sig = 0.322$ ). In the second phase of testing, employee learning orientation is not significant to employee creativity ( $\beta = -0.20$ ;  $t = -0.231$ ;  $Sig = 0.808$ ), whereas the leader heuristic transfer has a positive and significant effect on employee creativity ( $\beta = 0.233$ ;  $t = 2.578$ ;  $Sig = 0.011^{*}$ ). In the third phase of testing, creative self-efficacy has no significant effect on employee creativity ( $\beta = 0.175$ ;  $t = 1.861$ ;  $Sig = 0.065$ ). From the results, it can be concluded that hypothesis 3 and 4 are not supported, because the three main requirements are not fulfilled.

Table 3 Hypothesis testing

	Beta	T	Sig.	R <sup>2</sup>	Adjusted R <sup>2</sup>	F
Age	<b>0,226</b>	<b>2,013</b>	<b>0,046*</b>	0,132	0,97	<b>0,003**</b>
Tenure	0,089	0,916	0,361			
Education	<b>0,214</b>	<b>2,166</b>	<b>0,032*</b>			
Employee Learning orientation	-0,20	-0,231	0,808			
LHT	<b>0,233</b>	<b>2,578</b>	<b>0,011*</b>			

Source: Primary data were processed (2013)

\*\* p<0,01

\*p<0,05

Table 4  
Hypothesis testing with mediation variable

Independent Variable	1			2			3				
	Creative Self-Efficacy	Beta	T	Employee Creativity	Beta	T	Sig	Employee Creativity	Beta	T	Sig
Age	0,131	1,242	0,217	<b>0,226</b>	<b>2,013</b>	<b>0,046*</b>	0,203	1,816	0,73		
Tenure	-0,062	-0,685	0,495	0,86	0,916	0,361	0,100	1,036	0,307		
Education	<b>0,197</b>	<b>2,128</b>	<b>0,035**</b>	<b>0,214</b>	<b>2,166</b>	<b>0,032*</b>	0,179	1,802	0,074		
Employee learning orientation	<b>0,419</b>	<b>5,089</b>	<b>0,000**</b>	-0,20	-0,231	0,808	-0,094	0,0-0,981	0,329		
LHT	0,084	0,995	0,322	<b>0,233</b>	<b>2,578</b>	<b>0,011*</b>	<b>0,218</b>	<b>2,428</b>	<b>0,017*</b>		
R <sup>2</sup>			0,236			0,132			0,155		
Adjusted R <sup>2</sup>				0,205			0,97			0,115	
F				<b>0,000**</b>			<b>0,003**</b>			<b>0,002**</b>	

Source: Primary data were processed (2013)

\*\* p<0,01

\*p<0,05

Based on the results of the regression analysis, hypotheses 1, 3 and 4 are not supported. Learning orientation has no significant effect on employee creativity with a negative beta value. This result is not consistent with the result of research conducted by Gong, Huang, and Farh (2009) and Hirst, Van Knippenberg and Zhou (2009). This may happen due to learning orientation that is not sufficient to establish employee creativity in the context of operational work and maintenance on the telecommunications industry. Klijn and Tomic (2010) mentioned that the creative individual behavior is a function of antecedent conditions, personality, knowledge, intrinsic motivation, ability and cognitive style, social influence and contextual influences. Individual factors that may complement the effect of learning orientation on employee creativity are the ability and cognitive style. Hunter and Hunter (1984 in Bell & Kozlowski, 2002) suggested that cognitive ability is the best predictor that should be considered in relation to the learning and performance, especially for complex and difficult task. Consideration here is not intended to examine the impact of cognitive ability on learning orientation, but consideration for the use of cognitive ability is used to describe the effect of experimental error or to statistically control that learning orientation affects the outcome (Bell & Kozlowski, 2002). This was confirmed by research conducted by Ackerman, Kanfer, and Goff (1995) who found cognitive ability accounted for nearly 50 % of the variance in completing tasks in a complex simulated radar control. In general, individuals with high learning orientation will usually tend to be involved in the process of elaboration, critical thinking and the integration of new information with prior knowledge and experience (Bell & Kozlowski, 2002). They will be involved in cognitive processes to complete the task or problem. A learner with high cognitive abilities will benefit from a more complex learning strategies used to maximize their knowledge and performance. However, individual learners with lower cognitive abilities will be of little use or benefit from a more complex learning.

Amabile (1988) and Woodman, Sawyer, and Griffin (1993) mentioned that a person's cognitive style can affect employee creativity. Kirton (1976 in Amabile , 1988) stated that in fact everyone has a stable cognitive styles associated with patterns of behavior, preferences and different values. Kirton distinguished two types of approaches in problem solving and decision-making into two: adaptors and innovators. Someone with adaptive cognitive style tend to work with paradigms and procedures that have been given without asking the validity of the procedure. While a person with innovative cognitive style (innovators) will come out of the conventional paradigm, combining to become something new or unusual, redefine the problem, generate different ideas to the norm. Researchers speculate that most of the respondents have an adaptive cognitive style that tends to work by using the paradigm and existing procedures.

While the contextual factors that can be used to clarify the results of learning orientation on employee creativity is a culture that exists within an organization, Borghini (2005) reported an increase in knowledge and competence by employees can enhance the creativity that can be used as a creative solution within the organization. In the scope of the organization, cultural integration can enable organizational cognition processes by acquiring the knowledge possessed by the employee to the organization knowledge by codification of knowledge. Codification is the process of translating the knowledge that tacit knowledge is formalized in the program, procedures, software, patents and so on. Codified knowledge has positive and negative impact on the organization. Codification of knowledge will enhance the company's knowledge. But the spread of knowledge that has been codified in a formal structure can be formed to shape the rigidity of work in the organization. Rigidity in the organization means encouraging the use of existing knowledge and the inability to leave the rule, which in turn it will inhibit creativity. Organizational culture is also likely to occur in the context of the telecommunications company. Results of employee creativity in solving a problem shared with other regions experiencing similar problems. Codified knowledge is then used as a standard in dealing with such problems. Distribution and use of this new knowledge may lead to employees not trying to think creatively in solving the same task or problem.

This explanation may also explain why hypothesis 3 is not supported. Individual with learning orientation improves employee creative self-efficacy to perform creative performance, but because it may be the limited cognitive abilities of employees, they cannot elaborate and integrate new knowledge and existing knowledge into new things that can be used to complete a task or problem. Another possibility why creative self-efficacy cannot mediate learning orientation on employee creativity is possibly due to the culture of the organization itself. Organization with a culture of sharing knowledge and codified knowledge in the form of programs, procedures, work instructions and employees with adaptive cognitive style feel comfortable (inertia) and are reluctant to think creatively.

Based on the results of the regression analysis, hypothesis 2 is supported. Leader heuristic transfer has positive effect on employee creativity. This study is consistent with and supports the theory developed by McMahon and Ford

(2013). This result indicates that there are different types of new leadership (leader heuristics transfer) which can be used to increase employee creativity. Leader heuristics transfer focuses on improving the ability of employees to solve the problem by introducing patterns of problems, the process of finding the problem and providing solutions for solving those problems, while other types of leadership use the mechanism intrinsic motivation approach.

The results indicate several things. First, the ability of the individual heuristics is related to employee creativity (Amabile, 1988; McMahon & Ford, 2013). Second, employee creativity can be enhanced through the interaction of individuals (Reagans & Zuckerman, 2001 in McMahon & Ford, 2013). In this case, the interaction between superiors and subordinates occurs through heuristics transfer from a supervisor to a subordinate. Third, leaders have a major role in enhancing employee creativity through increased cognitive abilities of his subordinates (Reiter - Palmon & Illies, 2004). These results confirm that the leader can not only affect the creativity of employees using the intrinsic motivation mechanisms alone. There are other mechanisms that can be used to enhance the creative abilities of employees, i.e. by increasing the cognitive abilities of employees in a way to include them in the cognitive processes in solving the existing problems. The transfer includes the heuristics a leader used for pattern recognition, discovery and problem solving (McMahon & Ford, 2013). Leaders had a unique position in guiding and framing the experience of their employees to generate creative performance.

The test result also indicates that hypothesis 4 is not supported. This result indicates that the effect of heuristics leaders do not need to transfer through increased creative self-efficacy prior to generating employee creativity. Leader heuristics transfer can influence employee creativity directly by introducing the patterns, the process of finding the problem and it provides solutions for solving those problems without having to increase the ability of employees to create a creative outcome. Confidence in the ability mobilizes the motivation, and course of action to the desired situation (Wood & Bandura, 1989 in Gist & Mitchell, 1992). These results confirm that leader heuristic transfer is a different type of leadership with other leadership types that use intrinsic motivation mechanism to explain the causal relationship between leadership and employee creativity. Leader heuristics transfer focuses on increasing cognitive ability of employees to improve employee creativity without having to increase confidence in ability to generate creative performance.

Creative self-efficacy is not supported as a mediating variable in the influence of learning orientation, and leader heuristics transfer may be influenced by the creativity assessment carried out by the supervisor. Van Der Heijden and Nijhof (2004) expressed the need for caution in the performance measurement performed by the employees. Performance appraisals conducted by different persons may have different results. Similarly, employee creativity assessment conducted by a supervisor (supervisor-rating) may also vary with creativity assessment conducted by the employees themselves (self-rating). Campbell and Lee (1988 in Van Der Heijden & Nijhof, 2004) stated that there are some attributes that lead to differences in self-assessment with the assessment made by the employer, namely: 1) perceptions about different jobs and different assessment criteria, 2) different cognitive processes, 3) different affective processes. When someone judges him/herself, he/she will tend to give a positive value. Similar behavior is applied to creativity, a person can perform creative performance by producing something different from previous work. However, when the assessment is carried out by their superiors, the job may no longer be regarded as a creative performance because the result has already been done by other employees. This might cause why one's creative self-efficacy does not mediate the effect of employee learning orientation and leader heuristics transfer to employee creativity.

## 5. Conclusion

The results of this research can provide additional information to the management in the telecommunications industry that learning orientation is not sufficient to increase employee creativity. It requires a considerable cognitive ability and innovative cognitive style to be able to create employee creativity. Companies must be careful in considering the process of codification of knowledge that occurs in the organization, in order not to cause negative effects on employee creativity. In leadership theory, this research indicates that leaders who improve the cognitive ability of their employees by transfer of their heuristics can enhance employee creativity. From these findings, the leaders should participate in the cognitive processes of solving a problem, and this can result in creative performance. The participation of these leaders can be done through transferring their heuristics. This can frame the experience possessed by employees in a cognitive process to produce creative performance.

This study has several weaknesses. First, this study relies on the use of questionnaire for data collection. Future studies are suggested to add other methods (such as focus groups, and unstructured interviews) to obtain a more convincing justification. Second, measurement of leader heuristics transfer and creative self-efficacy is made at the same point in time so it can not reveal the causal ties. Future studies should use two different time measurement points in order to see the before and the after creative self-efficacy, and the leader heuristic transfer. Third, employee creativity may have been owned by the employee before. Fourth, the sample in this study is limited to the employees of the department operations and maintenance on the telecommunications industry with unique characteristics (high technological change and a complex type of work), so the generalization has to be done so carefully. Sampling at random will give a broader generalization.

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## The Moderating Role of Leadership Styles on the Relationship between Employee Satisfaction, Employee Engagement, Employee Self-Efficacy and Employee Motivation: A Research Framework

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### Abstract

In this paper, the authors will try to show the viability of conceptualizing a research framework focusing on employee motivation as the dependent variable and employee satisfaction, employee engagement and employee self-efficacy as the independent variables. It speculates that leadership style has an important moderating role in the links between employee satisfaction, employee engagement and employee self-efficacy and employee motivation. The relationships between leadership styles and employee motivation have long been studied by scholars (Isaac, Zerbe & Pitt, 2001; McGregor, 1966; Sager, 1979). But leadership style as a moderator has somewhat been ignored in organization studies. This paper hopes to serve as the foundation for undertaking an empirical study into the context of Indonesian universities.

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**Keywords:** Conceptual paper, employee engagement, employee motivation, employee satisfaction, employee self-efficacy, leadership style, literature review

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## 1. Introduction

Organizations, whether they subscribe to the notion of ‘learning organization’ or not, are interested in learning and in getting better so that they can achieve some level of acceptable performance [1]. These organizations can be business firms, governmental organizations, non-governmental organizations (NGOs) or higher institutions of learning (HILs). These organizations have their own goals and ways of achieving them.

The performance of organizations may be determined by several factors; some are external factors (outside of the organizations) while some are internal factors (within the organizations). The management of organizations would focus more on internal factors as these can be easily controlled. These factors are also called human factors. This paper is focusing on the human factors in higher institutions of learning. The aim is to develop a research framework which is relevant in the study of human factors in higher institutions of learning. The paper begins with a review of the literature related to the concepts of employee motivation, employee satisfaction, employee engagement, employee self-efficacy and lastly the concept of leadership style. Then all the said concepts are consolidated into the proposed research framework.

## 2. Literature Review

### 2.1. Employee Motivation

One important human factor which drives organizations (whatever types of organizations) is employee motivation [2, 3, 4, 5]. If an organization lacks motivated employees, that organization may face problems which may affect its performance, both short-term and long-term. But employee motivation is an intricate and sophisticated subject [6]. Nevertheless, it needs to be studied and explained. Thus, this section aims to show the meaning of employee motivation.

Employee motivation can be intrinsic or extrinsic [7]. Intrinsic motivation is derived by an employee from inside himself or herself while the extrinsic motivation is derived by an employee from outside himself or herself (from the environment inside an organization)[8, 9, 10, 11, 12]. Employee motivation also has been defined in several ways by scholars (Table 1).

Table 1 Types of Motivational Programs, Examples and Linked Theories

Types of Rewards	Programs	Examples	Theories
Intrinsic	Employee Recognition	Thank you notes; certificate of appreciation	Reinforcement Theory
Intrinsic	Employee Involvement	Participative management; Quality Circles; Employee Stock ownership	ERG Theory
Intrinsic	Job Redesign & Scheduling	Job sharing, rotation, enlargement & enrichment; flextime; telecommuting	Two-Factor Theory
Extrinsic	Variable	Piece-rate pay plan; gain sharing & profit sharing plans; bonuses	Expectancy Theory
Extrinsic	Skill-Based Pay	Skill, competence; knowledge based pay	ERG Theory
Extrinsic	Flexible Benefits	Modular plans; core-plus plans; flexible spending plans	Expectancy Theory

Source; [6], p.25

From Table1, it can be seen that the intrinsic motivation and extrinsic motivation can be explained by some theories such as the Reinforcement Theory, ERG Theory, Two-factor Theory and Expectancy Theory. In this paper, employee motivation is looked at as the dependent variable. Some scholars argued that employee motivation issues were somewhat saturated as time passed by. But since early 2000 (post 20<sup>th</sup> century) until today, several scholars have emerged and began to pursue research more and more on employee motivation whether in firms or governmental organizations [11, 13, 14, 15, 16, 17, 18, 19, 20].

## *2.2. Employee Satisfaction*

Employee motivation can be influenced by several factors. One of the important factors is employee satisfaction [21, 22]. Job satisfaction or employee satisfaction has been defined in several ways. Some believe it is simply how contented an individual is with his or her job regardless of whether he or she likes the job or individual aspects or facets of the jobs such as nature of work or supervision [23, 24]. Others believe that it is not so simplistic as the earlier definition suggest and believe that it involves a more multidimensional psychological responses to one's job [16, 25].

One of the most widely used definitions in organizational research is that of Locke [26]. He defined job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (p. 1304). Measurement of job satisfaction is important. Job satisfaction scales are devised by scholars and may vary in the extent to which they assess the affective feelings about the job or the cognitive assessment of the job. Affective job satisfaction is a subjective construct representing an emotional feeling individuals have about their job [23, 24, 27, 28]. Thus affective job satisfaction for individuals tends to reflect the degree of pleasure or happiness their job in general induces. Cognitive job satisfaction, on the other hand, is a more objective and logical evaluation of various facets of a job. Cognitive job satisfaction can be unidimensional if it comprises evaluation of just one facet of a job, such as pay or maternity leave, or multidimensional if two or more facets of a job are simultaneously evaluated. Cognitive job satisfaction does not assess the degree of pleasure or happiness that arises from specific facets, but rather gauges the extent to which those job facets are judged by the job holder to be satisfactory in comparison with objectives they themselves set or with other jobs. While cognitive job satisfaction might help to bring about affective job satisfaction, the two constructs are distinct, not necessarily directly related and have different antecedents and consequence [28].

## *2.3. Employee Engagement*

Another important factor that influences employee motivation is employee engagement. It was said that William Kahn was the one who had provided the first formal definition of employee engagement [29]. He defined it as "the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively and emotionally during role performances [29].

Employee engagement is also said to be a property of the relationship between an organization and its employees [30]. An "engaged employee" is one who is fully absorbed by and enthusiastic about work and so takes positive action to further the organization's reputation and interests [31, 32, 33, 34]. An organization with "high" employee engagement might therefore be expected to outperform those with "low" employee engagement, all else being equal [33].

In spite of all the explanation about employee engagement, scholars still feel that the concept still remains problematic [35, 36, 37]. Nevertheless Shuck, Reio Jr. and Rocco still believed that employee engagement is still a means of improving organizational performance (i.e. by improving employee motivation that will then affect organizational performance)[37]. To Macey and Schneider, even though the meaning of employee engagement for now is still ambiguous, they recommend that scholars view employee engagement from three facets: 1) psychological state engagement; 2) behavioural engagement and 3) trait engagement [36].

## *2.4. Employee Self-Efficacy*

The last independent variable that can influence employee motivation is employee self-efficacy. According to Ormrod, self-efficacy is the extent or strength of one's belief in one's own ability to complete tasks and reach one's goals [38] Psychologists, like Ormrod, have studied self-efficacy from several perspectives, noting various paths in the development of self-efficacy; the dynamics of self-efficacy and the lack thereof, in many different settings, interactions between self-

efficacy and self-concept and habits of attribution that contribute to or detract from self-efficacy. This can be seen as the ability to persist and a person's ability to succeed with a task. As an example, self-efficacy directly relates to how long someone will stick to a workout regimen (for exercises) or a diet scheme. High and low self-efficacy determine whether or not someone will choose to take on a challenging task or simply "write it off" as something impossible to do.

According to Lunenberg, self-efficacy is also known as social cognitive theory or social learning theory [39]. It is a person's belief that he or she is capable of performing a particular task successfully [40, 41]. Kantr says it is a kind of self-confidence [42] Since self-efficacy is said to have powerful effects on humans and organizations, Lunenberg believes it is important to identify its origin [39]. Bandura has identified four principal sources of self-efficacy: past performance, vicarious experience, verbal persuasion and emotional cues (Figure 1)[41].

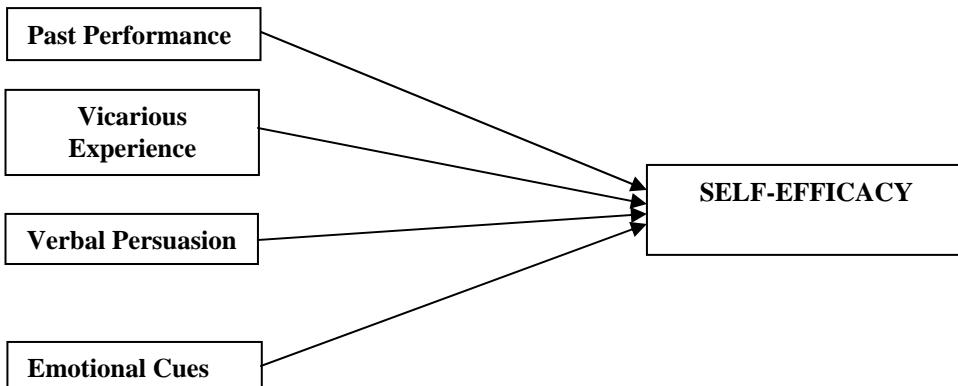


Figure 1 Sources of Self-Efficacy

Source: [39], p.2

Past performance refers a person's past experiences in performing a task. Vicarious experience refers to person's observations on his or her co-workers' success in performing a task. Verbal persuasion refers to a person's ability in persuading others that they can succeed in doing a task. Some scholars call this the 'Pygmalion effect' or the 'self-fulfilling prophesy' [[39, 41]. Lastly is emotional cue. This word refers to a person's expectation to do a task. If he or she expects problems in doing a job, he or she will fail to do the job. Bandura argues that emotional cues dictate self-efficacy [41].

## 2.5. Leadership Styles as the Moderator

The relationship between the independent variables and the dependent variable is seldom direct. It can be affected by a moderator or a mediator. Scholars have long studied the relationship between leadership and motivation [43, 44, 45]. But then, leadership or leadership style has been seen as the independent variable. In this paper, leadership style is looked upon as a moderator. A leadership style is a leader's style of providing direction, implementing plans and motivating people [46, 47]. There are many different leadership styles that can be exhibited by leaders in organizations. But some scholars believe that there are six dominant leadership styles (Table 2). The leadership style used by leaders will affect employee motivation.

Table 2 Types of Leadership Styles

No.	Types of Leadership Styles	Meaning of the Leadership Style
1	Authoritarian	This style keeps strict control over followers through rules
2	Paternalistic	This style keeps control over followers like a parent
3	Democratic	This style works through joint decisions between leader and followers
4	Laissez-faire	This style empowers followers to make decisions
5	Transactional	This style works on motivating followers through a systems of reward and punishment
6	Transformational	This style is where leaders inspire followers to transform

### 3. The Research Framework and Its Justifications

Based on the brief reviews of the relevant variables, the following research framework has been developed (Figure 2).

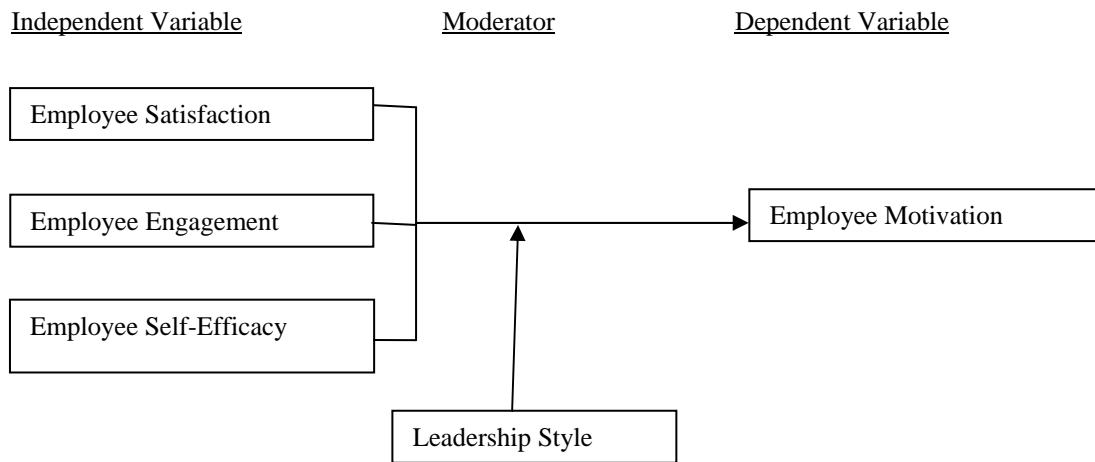


Figure 2 The Research Framework

According to Guthrie (2010), the literature review is always a major component of any research work [48](p.28 – 29). It is an analysis of the relevant publications that help set the context for and define the research topic. Bryman and Bell argue that a literature review is always oriented towards narrowing the field so as to provide a research problem that can guide the intended research [49]. This conceptual paper had used the literature review to survey the relevant works connected with the concepts of employee satisfaction, employee engagement, employee self-efficacy and employee motivation. In addition, a review was also made on the concept of leadership style which was perceived as the moderator for the linkages between the earlier mentioned constructs.

The results in this section are to support the development of the research framework as shown in Figure 2. From the review of the literature earlier, the following results have been derived:

1. Employee motivation is seen to be suitable to be studied as a dependent variable [11, 13, 14, 15, 16, 17, 18, 19, 20, 50];
2. Employee satisfaction is seen as suitable to be used as an independent variable [21, 22];
3. Employee engagement is also seen as suitable to be used as an independent variable [31, 32];
4. Employee self-efficacy is also seen as suitable to be used as an independent variable [39, 41];
5. Leadership style is also seen as suitable to be used a moderator between the independent variables stated and the dependent variable [46, 47];
6. The Research framework (comprising employee motivation as the dependent variable and employee satisfaction, employee engagement and the employee self-efficacy as the independent variables with leadership style as the moderator) is suitable to be used in an empirical study.

### 4. Conclusion

This paper is a literature review. It has attempted to review the concepts of employee motivation, employee satisfaction, employee engagement, employee self-efficacy and leadership style. The review shows that the concepts (especially employee motivation) are viable and can be used to launch an empirical study to look into employee motivation anywhere [50]. Subsequently a research framework with employee motivation as the dependent variable has been developed. Employee motivation has been widely studied in the 20<sup>th</sup> century. But human behaviour in organizations has become more

complex than ever before in the 21<sup>st</sup> century. This contention is supported by recent scholars who believed that employee motivation still has a bright future in spite of being part of a well-established research area [16, 46]. But initially the authors of this paper plan to study employee motivation in public universities in Indonesia. This area of research seems to be growing in the region for various reasons [51]. Among others, employee retention has been problematic for universities in recent years [52, 53]. The question is why do academics leave their employers. Probably their motivation to stay needs to be studied so that the management of universities do not jump to conclusions and thus making wrong decisions [54].

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# PROCEEDINGS

Learning Organization in Increasing the Organization Performance

