

PAPER • OPEN ACCESS

Knowledge Management Readiness for Private University: A Conceptual Model

To cite this article: Faradillah and Aprinaldi 2019 *J. Phys.: Conf. Ser.* **1196** 012052

View the [article online](#) for updates and enhancements.

You may also like

- [The Effectiveness of Palembang Ferry Port Displacement](#)
Rhaptalyani Herno Della and Taih-Cherng Lirn
- [Diversity and abundance model according to habitat characteristics of filariasis vector, *Mansonia* spp. in Banyuasin, South Sumatera, Indonesia](#)
Rini Pratiwi, Chairil Anwar, Salni et al.
- [Identification of carbapenemases enterobacteriaceae producing gene blaVIM in clinical isolates](#)
Ella Amalia, Tia Sabrina, Yuwono et al.

ECS Toyota Young Investigator Fellowship

For young professionals and scholars pursuing research in batteries, fuel cells and hydrogen, and future sustainable technologies.

At least one \$50,000 fellowship is available annually.
More than \$1.4 million awarded since 2015!



Application deadline: January 31, 2023



TOYOTA

Learn more. Apply today!

Knowledge Management Readiness for Private University: A Conceptual Model

Faradillah¹, Aprinaldi²

^{1,2}Information System, Computer Science Faculty, University of Indo Global Mandiri
Palembang, Indonesia

Email:^{1,2}{faradillah.hakim/aprinaldi}@uigm.ac.id

Abstract. This study proposes a conceptual model of Knowledge Management Readiness for private universities in Palembang, through the dissemination of questionnaires at three private universities in Palembang, this study succeeded in providing the new color for previous KM research. Culture and structure of the organizations that have always been important factors in implementing KM are not actually considered significant in these three private universities, in the other hand the orientation towards the system is considered to be insignificant in influencing the KM process. KM process with several enablers submitted proved to have an effect on the readiness to implement KM.

1. Introduction

One of the main obstacles of integrating sustainability in organizations is the lack of knowledge to manage the most valuable resources owned by the company, namely knowledge itself. Rita et al defined Knowledge Management (KM) as a way formed increasing organizational knowledge, in order to assist companies to find and create the information and new skills needed to achieve company strategic goals as some managerial techniques, tools and best practice even which can be the solutions of the company's problems [1]. The KM focus generally lies on collecting and creating of the available important knowledge at all times needed. KM is traditionally emphasized on forms of knowledge that have been acquired and translated beforehand. Knowledge of a process, procedure, intellectual property, documentation of best practices, forecasts, learning, and solutions to recurring problems are examples of traditional KM. But currently, the focus of KM is increasingly experiencing a shift in managing the important knowledge that may only exist in experts' minds known as tacit knowledge [2]. In the academic and professional sphere, knowledge management has been known as the core activities and has been recognized as one of the primary sources to find the competitiveness to be a sustainable company [2]. Humans as intellectual assets who can process knowledge so as to increase competitiveness and generate the value of a company into a knowledge economy [3]. The results of the Taipale study showed that the role of effective KM is not only covering Europe's competitiveness or economic growth, but KM went deep important in the issues of quality of life, and equality in Europe [4]. On KM studies in higher education, KM was also purposed of using information and knowledge so that it can improve performance. Educational institutions to develop knowledge initiatives to achieve business goals[5]. Abu Naser et al in their study showed that KM implementation could be improving performance. The results of their research showed knowledge sharing and collaborations are fundamental processes, and KM maturity level in universities to be higher than higher education that were not formed as universities[6]. Based on previous studies, the authors need to review deep down on best actions to implement KM at university, especially for private universities in Palembang. As one of



the efforts before implementing KM, we developed a conceptual model of KM readiness for private universities.

2. Knowledge Management Processes

Becerra and Fernandez define that knowledge management is all activities as an effort to find, collect, share, and reuse knowledge that can increase optimization through efficiency and effectiveness that impact knowledge to achieve organizational goals[2]. Nonaka and Takeuchi introduced the four KM processes in a model known as the SECI model, which consists of the process of Socialization, Externalization, Combination, and Internalization [7][8].

2.1 Knowledge Management Readiness

The readiness of the organization in adopting and implementing Knowledge Management is known as Knowledge Management Readiness. A general definition of readiness is the ability of a person or organization to accept the change in organization[3]. Mohammadi stated KM Readiness as the readiness of organizations, departments or working groups implement, and use KM successfully. Readiness is an essential part to be managed in early stages before implementing KM to answer two fundamental questions related to KM, namely current capabilities of organization and the organization steps as the preparations of KM implementation [9].

2.2 KM Infrastructure

KM Infrastructure is a precondition factor in organizations that encourage the implementation of KM. The main conditions supporting the implementation of KM in organizations are KM infrastructure in the form of web-based applications, groupware, data measuring devices, mobile devices, access to the whole world, high performance, user friendliness, standardized structure, and an easy to manage control system[10]. In some literature, KM infrastructure is also known by various terms, such as knowledge infrastructure capabilities[9][3][11], KM-enabler[8][12][13], KM infrastructure [12][14][15][16]. The determinants of readiness for the implementation of knowledge management (KM readiness) in state and state universities in Iran were KM Infrastructure, namely technology, organizational structure and organizational culture[12][13][17][18]. In this study, the author uses the resolution of KM infrastructure proposed by Becerra-Fernandez as a variable with indicators consisting of Organizational Culture, Organizational Structure, IT Infrastructure, General Knowledge, Physical Environment.

2.3 KM Strategy

Knowledge management strategies are defined as strategies designed to increase intellectual resources and abilities. KM strategies cannot be separated of management strategies in finding ways to maintain the existence of the company by managing knowledge[18]. KM strategy is also defined as steps, processes, approaches and infrastructure used to manage knowledge as a company's strategy in improving performance, policies, business plans, profits, turnover, process effectiveness and expertise [19].

2.4 The Research Model

Several previous studies have proposed several critical success factors for Knowledge Management for several industrial sectors, profit and non-profit companies, banking, to the academic world [20–24]. Some critical success factors of Knowledge Management (KM) implementing in organizations explored through multi-case study research in a separate way, this study combines several success factors simultaneously to build the KM readiness model for private universities. In this study, the authors propose several factors that have been extracted and several factors that considered necessary as the criteria of private universities as non-profit companies with independent funding sources. From the extraction results obtained seven variables with the factors that have been grouped based on the components, the variables that are given specifically according to the factors are: organizational culture,

organizational structure, IT infrastructure, general knowledge, physical environment, internalization process, externalization process [16].

2.5 Structural Equation Model (SEM)

Structural Equation Modeling (SEM) can model quantitatively the interactions and contributions between variables and test hypotheses from qualitative theories through quantitative data, including measuring the value of errors, the significance and magnitude of regression of each interaction in a model. Structural Equation Modeling (SEM) is essentially a method capable of conducting path analysis (path analysis) with latent variable. This analytical technique is a combination of two disciplinary methodologies namely econometric perspective that focuses on prediction and psychology that is able to describe the concept of a model with latent variables[25].

3. Result and Discussion

This research was conducted at three private universities in Palembang, with a total of 98 lecturers as respondents through proportional sampling technique. Data collection was done by distributing manual and online questionnaires. The results of data processing using Smart PLS shows that the value of AVE > 0.7 so that the proposed variable is valid[25]. The score details for AVE are CK: 0,632, IT: 0,621, OC: 0,709, HO: 1,000, SO: 0,722, KMP: 0,661, OS: 0,754, PE: 0,732, and KMR: 1,000. The results of data processing using Smart PLS shows that the value of *Composite Reliability* and *Cronbach's Alpha* > 0.7, this can be said that all of the variables that this study proposed are reliable. Table 1 describes all the details score.

Table 1 *Cronbach's Alpha and Composite reliability*

	<i>Composite Reliability</i>	<i>Reliability</i>	<i>Cronbach's Alpha</i>	<i>Reliability</i>
CK	0,837	High	0,819	<i>Reliable</i>
IT	0,830	High	0,836	<i>Reliable</i>
OC	0,829	High	0,820	<i>Reliable</i>
HO	1,000	Perfect	0,706	<i>Reliable</i>
SO	0,837	High	0,749	<i>Reliable</i>
KMP	0,796	High	0,816	<i>Reliable</i>
OS	0,860	High	0,861	<i>Reliable</i>
PE	0,839	High	0,610	<i>Reliable</i>

The test of the model validity and measurements by looking at the t-value. The significance value will be taken into consideration to evaluate the proposed research model. To see the significance value must first re-sampling with the bootstrapping method. The significance level that will be used in this study is 5% ($\alpha = 0.05$), so that the t-value used as the standard similar and bigger than 1,660. The results of bootstrapping calculations are shown in Table 2.

Table 2 *Output Bootstrapping Smart PLS*

Variable	T Statistics (O/STERR)	Result
OC → KMP	1,604	Denied
OS → KMP	1,651	Denied
IT → KMP	2,204	Accepted
CK → KMP	3,332	Accepted
PE → KMP	1,799	Accepted
SO → KMP	0,379	Denied
HO → KMP	3,021	Accepted
KMP → KMR	3,484	Accepted

Table 2 shows that there are three variables that were previously thought to influence the KM process, through the results of bootstrapping shows insignificant results. these variables are organizational culture, organizational structure and orientation to the system. the condition of the organization of private universities in Palembang which are under the auspices of the foundation allows the existence of a trend of organizational culture that is still traditional in the environment, this is a finding in KM research because in the previous study these three variables actually had a great influence on the KM process. Figure 1 shows the final conceptual model of this research.

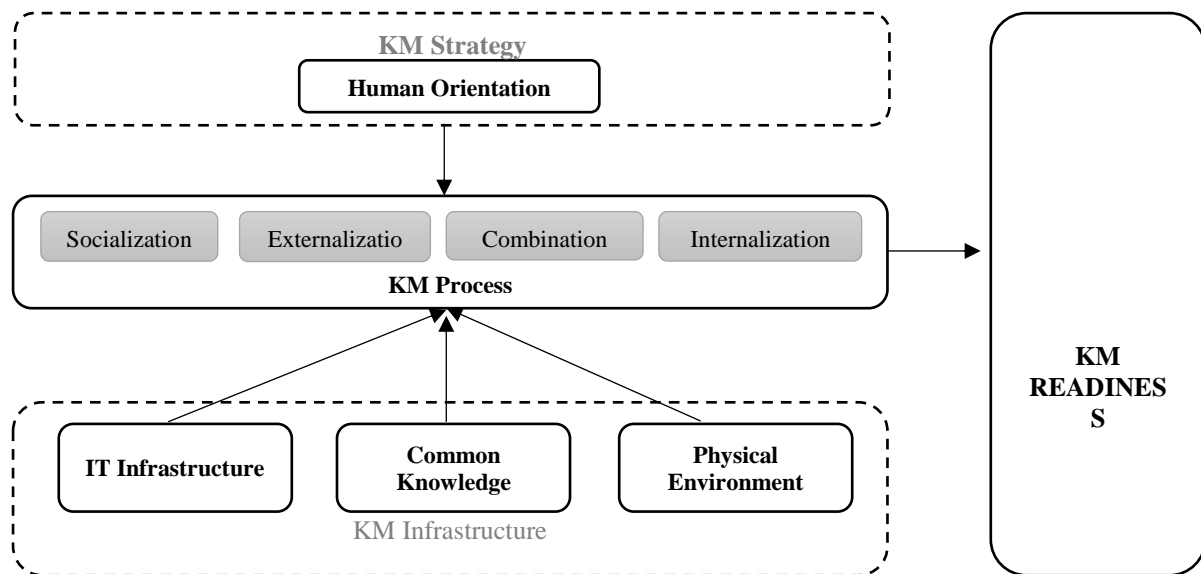


Figure 1 Conceptual Model: KM Readiness Model for Private University

4. Conclusion

The results of this study are several readiness factors that must be considered by private universities in Palembang before applying KM to their organizations, they are *Common Knowledge*, *IT Infrastructure*, *Physical Environment* as KM Infrastructure and *Human-Oriented* as KM strategy and *Socialization*, *Externalization*, *Combination*, and *Internalization* as KM Processes. This research only considers the internal side as a readiness factor that needs to be studied, further research may concern on external factors of private universities as factors that also need to be considered before implementing KM. Private universities can build Knowledge Management System (KMS) for their organizations as a form of solution to implement KM.

References

- [1] Rita, Aldabaldetrekü; Juuso, Lautiainen; Alina M 2016 *The Role of Knowledge Management in Strategic Sustainable Development-Comparing Theory and Practice in Companies Applying the FSSD* (Blekinge Institute of Technology)
- [2] Becerra-Fernandez I and Rajiv Sabherwal 2010 *Knowledge Management Systems and Processes*
- [3] Peet M 2012 Leadership transitions, tacit knowledge sharing and organizational generativity *J. Knowl. Manag.* **16** 45–60
- [4] Sakari Taipale 2012 Mobility of Cultures and Knowledge Management in Contemporary Europe **20** 173–81
- [5] Mohammadi K, Khanlari A and Sohrabi B 2009 Organizational Readiness Assessment for Knowledge Management *Int. J. Knowl. Manag.* **5** 29–45
- [6] Abu Naser SS, Al Shobaki M J and Abu Amuna Y M 2016 Promoting Knowledge Management Components in the Palestinian Higher Education Institutions - A Comparative Study *Int. Lett.*

- Soc. Humanist. Sci.* **73** 42–53
- [7] Creation O K, Nonaka I, Knowledge T and Knowledge E 1997 Nonaka ' s Four Modes of Knowledge Conversion *Organization* **5** 14–37
 - [8] Nejatian M, Nejati M, Zarei M H and Soltani S 2013 Critical Enablers for Knowledge Creation Process: Synthesizing the Literature. *Glob. Bus. Manag. Res.* **5** 105–19
 - [9] Kaveh Mohammadi, Amir Khanlari BS 2014 Organizational Readiness Assessment for Knowledge Management *Inf. J. Knowl. Manag.* **5** 29–45
 - [10] Rogério dos Santos Alves; Alex Soares de Souza et all 2014 *Km Tools and Techniques*
 - [11] Mohammad Ali Haghighi, Rouhollah Bagheri P S Kalat 2015 The Relationship of Knowledge Management and Organizational Performance in Science and Technology Parks of Tehran *IJM P* 422–47
 - [12] Lew Sook Ling, Ong Puay Tee U C E 2014 Conceptualizing Knowledge Management and Information Infrastructure Capability for Competitive Advantage : A Malaysian Perspective *J. of Glob. Inf. Technol. Manag.* 117–38
 - [13] Baskaran S 2018 Mediation effect of knowledge management enablers on the relationship between organizational characteristics and entrepreneurial orientation *Gadjah Mada Int. J. Bus.* **20** 1–32
 - [14] Pradana S I, Kurniawati A and Ambarsari N 2015 Knowledge Management System Implementation Readiness Measurement in PDII LIPI Based on People and Organizational Structure Factors *Procedia Manuf.* **4** 216–23
 - [15] Makani J 2015 Knowledge management, research data management, and university scholarship: Towards an integrated institutional research data management support-system framework *Vine* **45** 344–59
 - [16] Faradillah F 2018 Determinasi Knowledge Management Success Factors pada Universitas Swasta di Palembang Studi Kasus : Universitas Indo Global Mandiri **09** 49–54
 - [17] Prado-Gascó V, Pardo I Q and Pérez-Campos C 2017 Knowledge management and organizational culture in a software development enterprise *J. Small Bus. Strategy.* **27** 37–49
 - [18] Dayan R, Heisig P and Matos F 2017 Knowledge management as a factor for the formulation and implementation of organization strategy *J. Knowl. Manag.* **21** 308–29
 - [19] Cahyaningsih E, Sensuse D I and Noprisson H 2017 Multi-Methods for Knowledge Management Strategy Roadmap of Government Human Capital Management *Procedia Comput. Sci.* **124** 496–503
 - [20] Ooi K 2015 TQM practices and knowledge management : a multi-group analysis of constructs and structural invariance between the manufacturing and service sectors **26** 1131–45
 - [21] Yee, C.L. and Teoh KG C 2015 Developing a Roadmapping System for Knowledge Management in an Organisation *Pertanika J. Soc. Sci. Hum* **23** 83–100
 - [22] Rusly F H, Corner J L and Sun P 2012 Positioning change readiness in knowledge management research **16** 329–55
 - [23] Cheng E C K and Lee J C K 2016 Knowledge Management Process for Creating School Intellectual Capital **25** 559–66
 - [24] Omar G, Ahmar A, Rofiq A and Hadiwidjojo D 2014 The Impact of Knowledge Management, Learning Organization, and Educations Organization on Organization Performance : A Case in Brawijaya University **1** 28–47
 - [25] Santosa P I and Chan H C 2004 An Empirical Study on User Involvement : A PLS Approach *Pacific Asia Conference on Information Systems (PACIS)* pp 764–77