Faculty of Information and Communication Technology
Department of Computer Engineering
Baccalaureus Technologiae: Intelligent Industrial Systems
Information Technology Management Iv
ITA401T
Assignment One: Individual Assignment

Surname & Initials: Nzango JM
Student Number: 210007784

Lecturer: Mr. Benny Phaladi

August 2015

Table of Contents

1. 1. Chief Information Officer “CIO”

Senior Information System executives, particularly the Chief Information Officer (CIO), have the duty to provide a strategic direction to their companies IT activities and play a critical role in directing the company IT management and use initiatives (Applegate and Elam 1992; Earl and Feeny 1994).

According to (Gerow, Jennifer E 2012) the CIO's business and technical knowledge, and the important connections the CIO has established are CIO attributes that may influence the shared understanding of the business and IT executive team members and, in turn, financial performance.

1.1.1. CIO/Top Management Team (TMT) Knowledge

According to (Boynton, Zmud, and Jacobs 1994) prior conceptualizations of IT management practice suggest that two forms of knowledge are necessary for successful IT-based innovation: strategic IT-related knowledge and business knowledge.

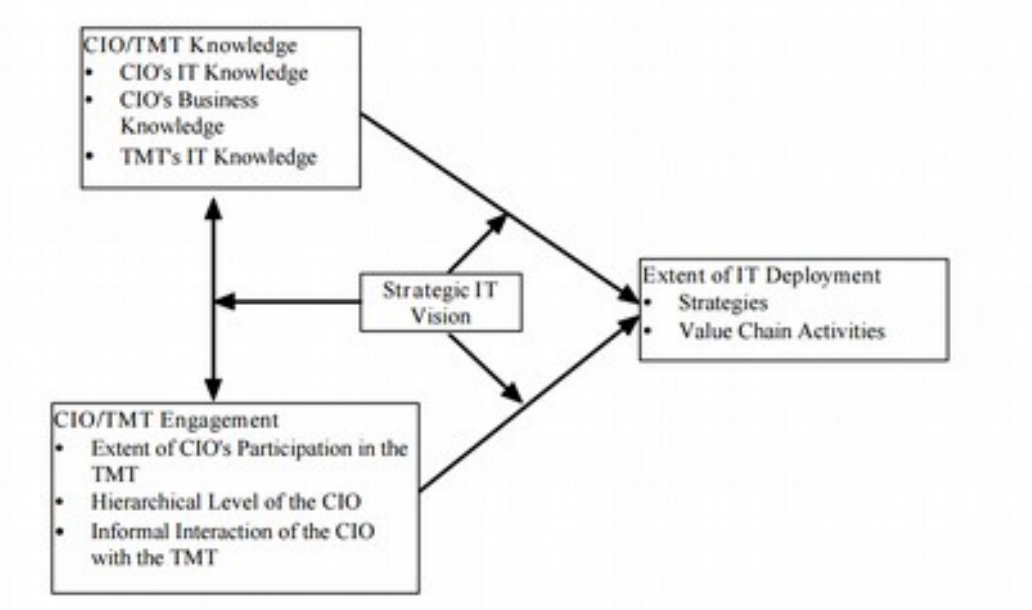


Figure: Research Model

1.2. Value add of Enterprise Resourcing Planning (ERP) systems

(Nah, Lau, & Kuang, 2001) defined **an Enterprise Resource Planning (ERP)** system has being an integrated business software package that automates many business functions and processes, such as a accounting, sales, distribution, and manufacturing processes. The key benefits of ERP systems include reducing asset bases and costs, accessing accurate and timely information across an integrated enterprise and supply chain, and increasing customer satisfaction by increasing the consistency of data (Poston & Grabski, 2000). (Wickramasinghe & Gunawardena, 2010) Suggested that the benefits are enabled by ERP systems that ar typically bundled with a database and applications that provide the business an enterprise wide view.

Despite all benefits that the ERP systems bring, such systems implementations are complex, difficult, ambiguous, costly with time and budget,and continue to have a high failure rate (Aloini, et al., 2007; Ke & Wei, 2008; Poston & Grabski,2001; Wickramasinghe & Gunawardena, 2010).

ERP projects have a high failure rate, with 90% of ERP implementations experiencing schedule delays or budget overruns (Umble, et al., 2003), (Nah and Delgado2006) suggested that seven categories of critical success factors were identified from the ERP literature: (I)business plan and vision; (2) change management;(3) communication;(4) ERP team composition,skills and compensation;(5) management support and championship; (6)project management; (7) system analysis, selection and technical implementation.

(SAGE An ERP Guide to Driving Efficiency) stated that improving business efficiency is a primordial concern for any company that hopes to achieve “best-in-class” operations. Businesses that successfully improve efficiency stand to reduce operating costs while improving the effectiveness and profitability of their operations. They also gain time to devote to strategic planning. While many companies employ isolated applications and manual business processes, best-in-class companies are more likely to fully exploit ERP technology. ERP solutions improve efficiency by automating business processes, furnishing integrated applications that share data to give employees instant access to the information they need, and by providing business intelligence and analytics to improve decisions and planning.

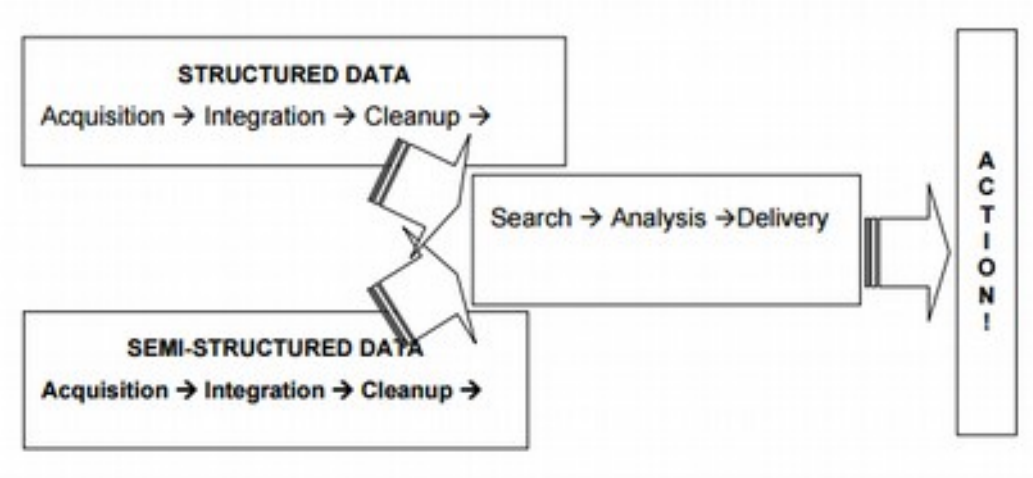
1.3. Business Intelligence

Business intelligence systems are those systems that combine operational data with analytical tools to present complex and competitive information to planners and decision makers (Negash 2004).

There is a big demand for Business Intelligence (BI) applications and this demand continues to grow even at a time when demand for most information technology (IT)

products is soft [Soejarto, 2003; Whiting, 2003]. Yet, information systems (IS) research in this field is, to put it charitably, sparse.

Based on Blumberg and Atre [2003b] that state that managing semi-structured data persists as one of the major unsolved problems in the IT industry despite the extensive vendor efforts to create increasingly sophisticated document management software.



(Negash 2004) To create business intelligence information, the integrated data are searched, analyzed, and delivered to the decision maker. In the case of structured data, analysts use Enterprise Resource Planning (ERP) systems, extract-transform-load (ETL) tools, data warehouses (DW), data-mining tools, and on-line analytical processing tools (OLAP). But a different and less sophisticated set of analytic tools is currently required to deal with semi-structured data.

1.4. Business process standardization and integration

(Nell, 1997) Enterprise integration is a concept of improvement, as well as total quality and error-free performance. The above listed concepts have proven to be very difficult to implement successfully because the degree of improvement that needs to be achieved is very difficult to achieve. The first part of the difficulty is in the sheer complexity of changing almost every sector of the business to achieve the set goals. The other part of the difficulty is in assigning metrics to measure progress. Still another part is due to the fact that these concepts do not refer to singularities. Any evaluation of progress is only a glimpse or a snapshot in a continuous stream of mini-improvements that happens over a period of many years. Management has been trying for better quality, higher reliability, and better communication ever since there has been business for profit. There is always room for improvement when considering quality, reliability, and communication among engineering, manufacturing, suppliers, and customers.

Enterprise integration has similar characteristics. Success is conditional in that it involves technological improvement, revising some principles, and the presence of a compatible

infrastructure. Enterprise integration also requires a compatible infrastructure in other organizations, so that the objective of the investment is fully utilized. However, two businesses probably would not invest in synchronism, for many reasons. If compatible infrastructure does not exist, the investments in the improvements in one enterprise are difficult to justify. Also, management finds that it is very difficult to translate these investments into some incremental improvement in specific business-improvement strategies, such as lower product cost, lower cycle time, and higher quality.

Having determined how enterprises will operate and produce an output, one can analyze how to design a system of realistic standards to boost process interoperability without stifling technology development and technology insertion. This standards view will involve a standards system that will allow enterprises to operate, change, and grow; and it will improve operations rather than hinder them.

To determine the standards that are necessary depends on existing technology and the standards that are in use [NELL96]. The analysis will be aided by first developing a set of enterprise models. The models should show:

- How much of the information at the interfaces between applications is in an open format
- How much of the semantics is in the one-name-one-meaning category
- How compatible is the hardware
- How well defined are the software interrelationships
- Are the communication protocols agreed upon
- Is there a mutual understanding among the information architectures that are attempting to communicate

2. Green IT strategy

Green IT can be defined as being the study and practice of using computing resources in ways that help reduce energy and operating costs, enable sustainable business practices and reduce the environmental impact of IT practices in the larger community(CGI 2010).

We live in an Information Technology (IT) era where computers, data centers, servers, internet and other machineries are used in almost all industries. The goal of such machines goal is to assist organizations in being smart, increasing profitability and operational efficiency and increasingly to help them to become or remain sustainable in the competitive global market

(Richard T. Watson, 2008) stated that CIOs have identified Green IT as one of the most important strategic technologies, the difference between green IS and green IT is Identified and there's a key difference between the two Elements:

Green IT is mainly focused on energy efficiency and equipment utilization. It addresses

issues such as:

- Designing energy efficient chips and disk drives
- Replacing personal computers with energy efficient thin clients
- Use of virtualization software to run multiple operating systems on one server
- Reducing the energy consumption of data centers
- Using renewable energy sources to power data centers
- Reducing electronic waste from obsolete computing equipment
- Promoting telecommuting and remote computer administration to reduce transportation emissions

Murugesan (2008) concluded that Green IT is indicative of environmentally sound Information Technology. Information Technology is essentially the design, implementation and management of computers at both the individual and industry level. Green IT has multiple aspects like environmental sustainability, energy efficiency economics and the cost of disposal and recycling. According to Nanath and Pillai (2012) there are two aspects of Green IT with IT being the cause of environmental issue and the other using IT/IS to resolve the issue.

In a 2007 study by TheInfoPro, Inc it was deliberated that Green IT contributes in saving money because of the fact that it reduces the demand for the consumption of energy and new facilities among other advantages. Enterprises that invest in green IT also tend to profit from organizational reform through BPM, a key green IT strategy. They also meet stakeholder demands for better environmental performance and are able to publicize authentic accomplishments. And they comply with environmental laws, often getting ahead of the curve as regulations tighten, which can be a competitive advantage. Green IT provides an excellent opportunity, particularly through business process management (BPM) and IT-managed efficiencies found across the supply chain.

It is very crucial and important mentioning that there are direct and indirect effects of Green IT (Nanath and Pillai 2012). The direct effect occurs by reducing environmental impact of IT and indirect effect occurs by using IT to support the initiatives promoting sustainability (Nanath and Pillai 2012).

Green IT practices—including exciting new efforts in the major area of data center power utilization—are earning a place on the corporate agenda, and implementation of these programs is clearly within the reach of most enterprises today. Because Green IT programs are demonstrating fundamental economic as well as environmental sense, it is understandable why organizations are exploring green computing options with such intense interest across the IT industry.

3. SABMiller Research

Being SABMiller a worldwide company with a very wide geographical presence and extensive brand portfolio that should actually make the company less susceptible to market volatility. However not everything is a fairy tale when examining deeper w into the structure of SABMiller, major research shows that it is exposed to threats that may undermine its long-term strategy. Research also show that SABMiller has a very large range of opportunities to take advantage of and to offset any threats that may arise.

SABMiller plc is one of the world's leading brewers with more than 200 beer brands and some 70,000 employees in over 75 countries.

SABMiller strategic Priorities include:

- Creating a balanced and attractive global spread of businesses.
- Developing strong, relevant brand portfolios that win in the local market.
- Constantly raising the profitability of local businesses, sustainably.
- Leveraging our skills and global scale.

3.1. SWOT Analysis

SWOT was developed by Ken Andrews in the early 1970s. This situation analysis tool, is used in the preliminary stage of strategic decision-making [Johnson et al 1989] where it provides the basic framework for strategic analysis.

3.1.1. Strength

It is proved that 98% of whole brew consumption within the country is brewed by SAB which was the expertise gained over 100 years in South Africa. Such has become further strengths by listing in two stock exchanges. Their distribution system is a major competitive advantage for them. Economies of scale enable them to price cutting of several products. This was on another side was the potential threat for new entrants and rivals.

3.1.2. Weakness

SABMiller share price decrease about 15.5% during November 2000 due to failure to make a major acquisition of first class brand and over reliance on its development market.

SABMiller realised that the HIV/AIDS was the significant risk which was the potential to impact on the business on different perspective. Have a positive influence on the communities in which we operate. Protect and enhance our corporate reputation.

1. Limit the suffering and loss that the pandemic generates for our employees and in some cases within our value chain.
2. Address and manage the business risks that the company faces.

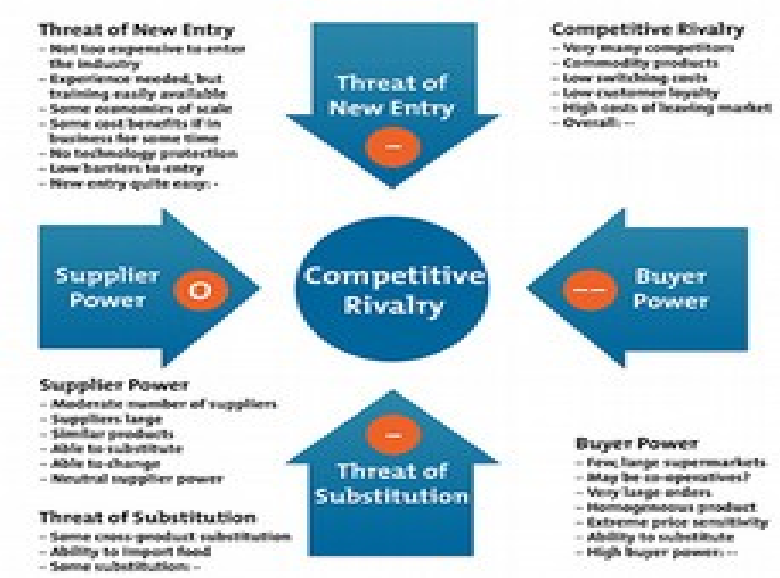
3.1.3. Opportunities

The 100 years of expertise of SABMiller in beer producing and developing an optimum brand portfolio with economies of scale in production and distribution were proven to be its opportunity in emerging or developed economies. They made incremental growth, both organic and through acquisition, being pursued in a hostile way.

3.1.4. Threats

It was the threat to SABMiller when the water supply to one of its breweries in Mozambique failed but they got rid of the situation by paying high water cost to local fire brigade to get enough water to carry-on beer production process.

3.2. Porter's 5 Forces analysis



Porter's 5 Forces analysis deals with factors outside an industry that influence the nature of competition within it, the forces inside the industry that influence the way in which firms compete.

Original competitive forces model, as proposed by Porter, include the following:

- The rivalry between existing sellers in the market.
- The power exerted by the customers in the market.
- The impact of the suppliers on the sellers.
- The potential threat of new sellers entering the market.
- The threat of substitute products becoming available in the market.

3.2.1. Threat of New Entrants:

SABMiller works in a highly competitive industry which prevents local and small-scale manufacturers in the market. The threat of new entrants for this industry is very limited. So, it can be said that the market is in the hands of very few big market players. That fact didnt prevent SABMiller to experience a price war in the United States that couldn't no longer be sustained, The major reason behind the strength of SABMiller is that major beer brands are associated with this company (Kollewe 2006).

3.2.2. Bargaining Power of the Suppliers

SABMiller is the world's second largest brewer following Anheuser-Busch InBev or AB InBev, . So, we can conclude that SABMiller not only enjoys the economies of scales but also actually lowers the bargaining power of the suppliers because of that fact that it has a very global leverage power.

3.2.3. Bargaining Power of the Buyers:

Market or consumers buying power clearly affect how much revenue a specific company or firm will get; however, SABMiller is a globally established company which has diversified its risk. That means even if in cases where one country is under-performing or generating low sales, the sales in other countries or areas will cover this low.

3.2.4. Threat of Substitutes

Even-though the beer industry has very loyal customers. Various established brands are associated with this company, customers rarely switch to the cheaper beers. So, switching to the other products is very low particularly in this industry, meaning there is very low chance that SABMiller customers will switch to a competitor .

3.2.5. Competitive Rivalry

SABMiller has established its market position in almost all developed countries. Therefore, the threat of existing rivals is very low. However, the Company is expecting challenges while introducing business in emerging countries like India, China and other Asian and African countries.

Comparing for instance Ansoff'ss Matrix and SABMiller:

Ansoff's Matrix evaluates the current business strategy in perspective of market and products. In other words, it shows how business is attacking into the market with its existing and new product.

References

- [NELL96] Nell, James G., "Enterprise Representation: An Analysis of Standards Issues", Modeling and Methodologies for Enterprise Integration, Edited by Bernus and Nemes, Chapman and Hall, 1996

- Aloini, D., Dulmin, R., & Mininno, V. (2007). Risk Management in ERP Project Introduction: Review of the Literature. Information & Management, 44 (6), 547-567. http://dx.doi.org/10.1016/j.im.2007.05.004
- Applegate L. M. , Elam J. J. New information systems leaders: A changing role in a changing world. MIS Quart. (1992)
- Armstron, Curtis and Sambamurthy, V., "Creating Business Value Through Information Technology: The Effects of Chief Information Officer and Top Management Team Characteristics" (1996). ICIS 1996 Proceedings. Paper 14. http://aisel.aisnet.org/icis1996/14
- Blumberg, R. and S. Atre (2003b) “The Problem with Unstructured Data”, DM Review, http://dmreview.com/master.cfm?NavID=55&EdID=6287 (current Sept. 12, 2003).
- CGI, “Emerging Trends in Green IT”, http://www.cgi.com/sites/default/files/white-papers/cgi_whpr_84_emerging_trends_green_it_e.pdf
- E.J. Umble et al. “Enterprise resource planning: Implementation procedures and critical success factors” / European Journal of Operational Research 146 (2003) 241–257
- Gerow, Jennifer E., "What Should Firms Look for in a CIO?" (2012). SAIS 2012 Proceedings. Paper 14. http://aisel.aisnet.org/sais2012/14
- Johnson, G., K. Scholes and R.W. Sexty (1989). Exploring Strategic Management. Prentice Hall, Scarborough, Ontario.
- Murugesan, S. 2008. "Harnessing Green It: Principles and Practices," IT Professional (10:1), pp. 24-33.
- Nah, F., & Delgado, S. (2006), “Critical success factors for enterprise resource planning implementation and upgrade”, The Journal of Computer Information Systems, 46 (55), 99-113.
- Nah, F., and Delgado, S. 2006. “Critical Success Factors for Enterprise Resource Planning Implementation and Upgrade,” Journal of Computer Information Systems (46), pp. 99-113.
- Nah, F., Lau, J. and Kuang, J. (2001), “Critical factors for successful implementation of enterprise systems”, Business Process Management, 7 (3), 285-96.
- Nanath, K., and Pillai, R.R. 2012. "A Sustainability Model of Green It Initiatives," in: International Conference on Information Systems. Orlando.
- Negash, Solomon (2004) "Business Intelligence," Communications of the Association for Information Systems: Vol. 13, Article 15. Available at:

http://aisel.aisnet.org/cais/vol13/iss1/15

- Nell, J. (1997). A standardization strategy that matches enterprise operation. Gaithersburg, MD: U.S. Dept. of Commerce, Technology Administration, National Institute of Standards and Technology.
- Porter's 5 Forces analysis. 2015. *Porter's 5 Forces analysis*. [ONLINE] Available at: http://university-essays.tripod.com/porters_5_forces_analysis.html. [Accessed 21 August 2015].
- Poston, Robin and Grabski, Severin, "The Impact of Enterprise Resource Planning Systems on Firm Performance" (2000).ICIS 2000 Proceedings. Paper 48. http://aisel.aisnet.org/icis2000/48
- Soejarto, A. (Mar. 20, 2003) “Tough Times Call for Business Intelligence Services, an Indisputable Area of Growth”, http://vb.channelsupersearch. com/news/var/40682.asp or www.VarBusiness.com (current May 5, 2003).
- Strategic Plan Prepared by: Steven Carlisle 2015. [ONLINE] Available at: http://mdandsc.com/wpsystem/wp-content/uploads/2011/03/ab.pdf. [Accessed 21 August 2015].
- Tushi, Bonny Tuskeen, Sedera, Darshana, & Recker, Jan C. (2014) Green IT segment analysis : an academic literature review. In Proceedings of the Twentieth Americas Conference on Information Systems (AMCIS 2014), Association for Information Systems, Savannah, Georgia, The United States of America, pp. 1-15.
- Whiting, R. (Jan. 13, 2003) “Look Within—Business-Intelligence Tools have a New Mission: Evaluating All Aspects of a Company’s Business”, InformationWeek, pp. 32.
- Wickramasinghe, V. and Gunawardena, V. (2010), “Critical elements that discriminate between successful and unsuccessful ERP implementations in Sri Lanka”, Journal of Enterprise Information Management, Vol. 23 No. 4, pp. 466-485.
- Zmud, R. W.; Boynton, A. C.; and Jacobs, G. C. “The Information Economy: A New Perspective for Effective Information Systems Management.” Data Base, Fall, 1986, pp. 17-23.