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Effectiveness of Knowledge Management in Achieving Success in Malaysian Government Agencies: A Literature Review

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Abstract: As knowledge is being accepted as an inseparable imperative strategy of organization, organizations look at knowledge as a power, which drives advantages to them. However, many organizations believe it is not about just the existence of knowledge but the organizational growth is being driven from the act of knowledge sharing. As modern economy, takes knowledge as a point to achieve project success, this competitive advantage is being utilized from the greater degree of inter-organizational utilization of information and data coupled with the harnessing of people's skills and ideas as well as their commitments and motivations. Therefore, it is undeniable that today's knowledge is an essential asset of every single company and it has become more important than land, labor or capital in today's economy. This paper investigates on the importance of knowledge management in generating of project success by analyzing whether or not government companies and agencies in Malaysia practice Knowledge Management. In this regard, a research has been conducted amongst fifteen Malaysian governmental companies and agencies to find how effective project managers in Malaysian government companies, integrate Knowledge Management criteria and key success elements in order to achieve project success and gain success.

Keywords*: Knowledge Management; Project Success; Competitive Advantage; Knowledge Sharin; Project Managers; Government Companies and Agencies*

1. Introduction

Today, knowledge is considered as the most important resource in organizations. It is increasingly being acknowledged that KM enables improved business performance in organizations and facilitates attaining organizational mission and goal. Knowledge management plays a crucial role through governmental agencies, through many established surveys, it is believed that in those organizations that their management and staff focus on practicing knowledge management and knowledge sharing will grow stronger and turns to be more competitive indeed rather than those organizations, which lack of knowledge management practices.

2. Literature Review

Research on project success and many works regarding project success criteria have been published widely. However, there is no consensus upon factors or criteria of success (Ika, 2009). Researchers keep coming up with different sets of success factors that contributed to project success. Success criteria should be set at the very beginning of the project (Zhiye, Poli, and Mithiborwala, 2009) and because each project is unique (Baccarini, 1999) by definition (PMI, 2008) each project should have its own set of criteria. Therefore, it is almost impossible to have one set of criteria to fit all projects (Dvir, Lipovetsky, Shenhar, and Tishler, 1998). Nevertheless, it is possible to build an underlying framework that help to guide the process of defining success for specific projects since all projects target success regardless of the specific definition for each project. Traditionally, project success has been measured against limited criteria namely: time, cost and quality; this is known as The Iron Triangle (Atkinson, 1999). Even though it is "Iron Triangle", it has been criticized for being insufficient to fully define the project success criteria (Milis, Meulders, and Mercken, 2003). Simply completing a project on time, on budget and according to desired quality does not necessarily mean success. Furthermore, research keeps discovering more criteria to measure project success such as client satisfaction and end-user satisfaction (Ika, 2009). Historically these criteria have been used to evaluate the project as a whole.

Since project results have many dimensions, further distinctions have emerged. Shenhar et.al (1997) introduced the business level as a distinct dimension or level of project success criteria. They suggest four distinct dimensions at which the project can be assessed. These dimensions are project efficiency, impact on the customer, business and direct success, and preparing for the future. Even though Shenhar et. al (1997) consider these dimensions as four distinct dimensions, the direct success and preparing for the future are both business dimensions with timeframe difference. The direct success dimension is related to short time while preparing for the future is related to long time. Later, Shenhar et. al (1997) incorporated these four dimensions into a multi-dimensional strategic framework for project success assessment containing thirteen measures distributed between these four dimensions. The literature on project success criteria evolved from limited criteria (Iron Triangle) to a wider variety of dimensions. However, the focus on Three key success of KM less can be considered at past same context literature, that is undeniable that people should be trained and have defined processes (Cachat, 2009) this actively creates a team vision and success criteria and will prioritize criteria(s). Success is achieved only when the right people and process are in place because each has an influence on the outcome. Introducing new tools without taking steps to address appropriate people and process issues can create risks, waste resources, and sidetrack the attention of valuable human resources.

It is therefore important to resist the temptation to focus on tool-centric solutions (Wadhwa et. al, 2005). Furthermore, the Malaysian Public Sector ICT Strategic Plan 2011-2015, MPSISP 2011-2015 with slogan "Powering Public Sector Digital Transformation" had been launched by MAMPU on 7th July 2011. MPSISP 2011-2015 defined the drivers that drive the need for change including Government 2.0: New Generation, Increasing need to do more with less and Pervasiveness of technology: Ubiquitous Access. However the current Malaysian Public Sector ICT Environment assessment shown that there are some areas need to be improved. The findings from the perspective of ICT Supply include aspects of ICT Management, Organization and Infrastructure also the perspective of ICT demand includes IT cost management processes, enhancing knowledge management through organizational people (staff / citizen) and technological advancements (e.g. transformation of physical governmental agencies to e-government agencies). This paper will suggest a strategy map to effectively manage people, process and technology through organizational criteria in order to achieve success.

Framework for Literature Review: The framework used for the review of literature applies two guiding theories those are Four KM criteria of Forrester Research adopted from Robert Kaplan and Norton (2005) which considers an organization from business perspective and KM Diamond framework presented by Wickramasinghe (2006), in which point out elements of people, process and technology and mention these three elements as KM key success elements. Basically, this framework has been mentioned to seek for relationship among KM key success elements (people, process and technology) and Kaplan and Norton's four success criteria (financial, customer, internal and growth perspectives), in order to enable governmental agencies to achieve project success. This paper demonstrates that how organizations using people, process and technology as main success factors to adopt knowledge management criteria and effectively drive success. Today, every organization's main objectives are to achieve success, gain competitive advantage and enlarge their customer loyalty. As E. Williams et. al (2011) mentioned, the key to unlock organizations' objectives is to understand and align KM success key elements (people, process and technology) with great degree of knowledge by initially increase the efficiency of people and process elements and secondly make them work more effectively and at lower cost over time by utilizing technology (the third KM element). Rarely, organizations apply technology to solve complex challenges only to find that the technology multiplies the impact and visibility of the problem. this technology-first mindset is an strategy in which provides only temporary solution to complex operating and internal problems, whereas, in recent decade it has been proved that alignment with knowledge management can effectively make technology as a permanent solution to inter-organizational challenges. Moreover, in earlier researches and studies no literature were found to adopt KM success keys (people, processes and technology) to KM strategy map which focus on organization from four perspective of financial, customer, internal and growth.

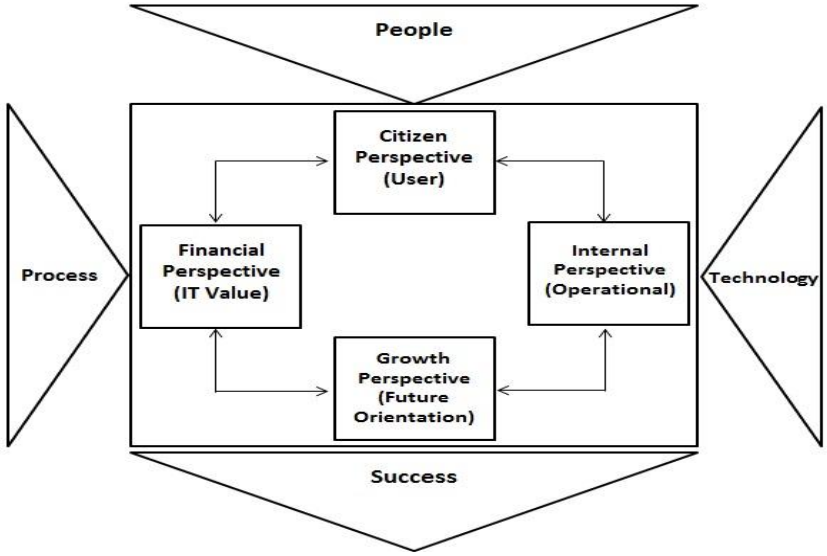
People: Achieving success highly depends on people element, in fact, people element can include two main categories those are staffs and customers, customers for governmental agencies are potentially their public users and citizens. This emphasizes on Staffs' motivation, willingness and ability to share knowledge and

utilize their knowledge in order to fulfill their task well and in contrast, citizens' satisfaction and trust are concerned as main keys to gain customer loyalty, business survival and success. In below framework (figure 1), citizen perspective is one of the Four KM criteria(s) in which contain number of indicators that governmental agencies should concern about enhancing and upgrading them, those are solving citizen problems by enhancing quality of service offered and delivering values and improving citizen trust and satisfaction.

Process: In reality, Knowledge management involves a number of processes for instance capturing, transferring, sharing, applying and creating a new knowledge within people or organizational entities, this element contributing by creating new knowledge or transferring the existed knowledge among people. This actively enhances productivity through staff and efficiency of communication and interaction of citizens with government agencies. Likewise, as can be seen in figure 1. Financial perspective, which is one of Four KM criteria, involves organizational processes focusing to increase asset utilizations, improving cost structure and simultaneously enhancing customer trust and satisfaction by well-defined financial management and presenting services in lower cost.

Technology: It is undeniably true that, the advancement in Information and communication technology (ICT) has influenced the way people communicate with governmental agencies as well as inter-organizational processes to deliver quality services are being accelerated, being more visible, transparent and offer viable alternatives by facilitation in solving challenges to meet organizational objectives. Electronic government services are good example of the way technology enhance communication and affect other two elements of people and processes as well. Technological advancements leads company to create "to be" environment by utilization of knowledge management initiatives and upgrade interaction of citizens with government agencies, long lasting use of technology as a KM key success element would actively meet organization's mission and drive success as well as loyalty and competitive advantage. Based on "figure 1", internal perspective which intended operational excellence of organization includes number of indicators those illustrate that technology cause operational excellence by optimization of internal processes, standardization of platforms, providing end user's IT support and improving risk management and change management when required.

Figure 1: KM Key Success Elements and KM Criteria(s) Drive Success



Lastly, Fourth KM criteria illustrates organizational growth which leads to future orientations, growth perspective indicates indicators those facilitate organization to achieve its mission; those indicators are business internationalization, improving accurate knowledge of business and effectively managing organizational culture. All Four KM criteria can be supported by three KM success keys in order to accelerate obtaining success.

3. Methodology

To determine the effectiveness of Knowledge Management (KM) in achieving project success in Malaysian government agencies, we conducted an extensive literature review. The first phase of the literature review, we review relevant scope and other material sources. Since KM and project success are an interdisciplinary topic in Project Management area, relevant articles are published in a wide variety of journals. Furthermore, KM is still an emerging research area and most of the research is published in conference proceedings. Therefore, for this literature review, we included both academic journal paper and conference proceedings. The literature review was started with a list of online academic journal and conference from different online databases. The following online databases were searched:

- IEEE Xplore
- ProQuest Direct
- Science Direct
- ACM Digital Library
- IREP
- Google Scholar

From the papers that we identified, we went backwards to review other work of the authors as well as the citations. The keywords that we used to find the relevant papers are "Knowledge Management", "Project Success", "Project Management", "Knowledge Workers", "Project Managers" and "Government Agencies" that were to be found in the abstract or title in the papers. To ensure that only the most relevant and the quality of the conference papers, we focused more on a few established conferences in the field of Knowledge Management and project success. The most common factors of Knowledge Management and Project success criteria been selected. The term 'survey' is commonly applied to a research, methodology designed to collect data from a specific population, or a sample from that population, and typically utilizes a questionnaire or an interview as the survey instrument (Robson, 1993). This empirical research has been conducted through 15 Malaysian Governmental agencies. This questionnaire-based and web-based survey is to determine how effective Knowledge Management is being applied through Malaysian Governments agencies and focuses on importance of Knowledge Management Strategy Map to achieve success. According to Leary (1995), there are distinct advantages in using a questionnaire rather than an interview methodology: questionnaires are less expensive and easier to administer than personal interviews; they lend themselves to group administration; and, they allow confidentiality to be assured. Robson (1993) indicates that mailed surveys are extremely efficient at providing information in a relatively brief time period at low cost to the researcher.

4. Findings and Analysis

The four KM criteria of our research (strategy map) are financial, citizen/public, internal and growth perspectives. These four criteria are considered as a strategy map focuses on knowledge management from business aspect and demonstrates how internal operational excellence (technology) and growth indicators (future orientation capabilities) result in well financial processes and citizen satisfaction and trust, as a result this strategy map impacting organizational people and processes by utilizing technology.

Financial Perspective: In our research framework, considering organizational processes from financial perspective raises number of indicators to evaluate how effective management of IT costs, cost structure, fixed cost, variable cost and increasing asset utilization can enhance citizen trust, satisfaction and loyalty. We did not identify any academic paper that would have investigated the effects of financial process managements in achieving organizational mission and success. However, relevant studies and researches have been reviewed to evaluate which one of indicators of financial perspective can be taken as a stronger measure to result success. Therefore, we propose following research questions for future research:
RESEARCH QUESTION (e.g.): How effective do project managers in your organizations manage to increase asset utilization? or to what extent do project managers in your organization apply KM strategies in order to improve IT cost structure?

Citizen Perspective: Since governmental agencies and organizations aim at gaining citizen's attention to use their services and interactively have mutual communication, citizen perspective of strategy map represented, is representing number of indicators, for instance delivering values to public/citizens, satisfying public by service and quality and solving public/citizen problems. Number of past literatures mentioned that although it is absolutely essential that people, process, and technology are fully aligned with the project objectives, budget, and timeframe but that is undeniable that People are the most important component, because managing knowledge depends upon people's willingness and motivation to share and reuse knowledge. (CIO Council, 2001). Existed literatures in this context are mostly general not specified to governmental agencies and not mentioning measures, they take to enhance citizen/public satisfaction and trust in order to improve their loyalty. In this regard, we propose following research questions for future research:

RESEARCH QUESTION (e.g.): How effective do project managers in your organizations take strategies to enhance delivered value / service to citizens? or To what extent do project managers in your organization apply KM strategies in order to solving public/citizens' problems?

Internal Perspective: Internal perspective of mentioned strategy map focuses on internal operational excellences supported by technology factor. This raised number of indicators for instances optimizing IT internal processes, standardizing platforms, delivering on schedule, effectively support end users (IT support), improving business productivity, proposing enabling solutions and etc. It is undeniably true that technological enhancements enable more informed and often faster, decision making across the organization (E. Williams et. al, 2011). Although, several existed literatures in this context mentioned importance of operational excellence using new tools and technology but yet the importance of knowledge management is less recognized, through this empirical research we intended to focus on knowledge management which leads to analyses and implement more efficient risk management, change management where required, enhancing enterprise integration processes and improving business automation services. Thus, we propose following research questions for future research:

RESEARCH QUESTION (e.g.): To what extent do project managers in your organization apply KM strategies in order to improve business productivity using technological solutions? or How effective do project managers in your organizations take technological strategies to enhance business automation services?

Growth Perspective: Last of all, fourth KM criteria to investigate on, is enhancing governmental agencies from growth perspective. In fact, based on literatures reviewed growth indicators were not mentioned for governmental agencies whereas, we suggested internationalization opportunities and improving accurate knowledge of business, in order to facilitate the path to achieve success. Thus, we propose following research questions for future research:
RESEARCH QUESTION (e.g.): How effective do project managers in your organizations apply development of business opportunities? or To what extent do project managers in your organization apply KM strategies in order to improve accurate knowledge of business?

5. Discussion and Conclusion

This paper reviewed an extensive amount of existing Knowledge Management and organizational Success criteria(s), proposed a conceptual framework with three KM success keys and 4 KM criteria(s) for analyzing effectiveness of knowledge management criteria(s) and Success keys to draw a strategy map for leading governmental companies to succeed in achieving their mission, either citizen loyalty or gaining competitive advantage. The two most studied organizational criteria(s) are internal and citizen perspective, internal perspective focuses on operational excellences using tools and technologies whereas, citizen perspective review users' demand, problems, awareness of KM, satisfaction and trust. Based on our findings, we want to emphasize on three KM success keys specially role of people to lead organizations to achieve success. One of the critical themes to investigate is how knowledge management indicators and help staff work more motivated and citizen to communicate more effectively to receive value from government agencies.

Moreover, to lead government organizational objectives to succeed by utilizing KM, we also recommend that researchers collect more empirical data backed by guiding theories and understand the underlying

technologies better. We do not claim that conceptual papers would be unimportant but yet we believe that more theory based empirical researches are needed to enhance the current understanding of KM and success relationships. For researchers, our study summarizes the existing research findings and organizes them based on a set of key successes and criteria(s). Our review suggest that researchers should focus on people processes and technology as the most significant KM success keys and use these factors to support users, operational excellence and future growth from various perspectives which leads to success.

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