THE RELATIONSHIP OF KNOWLEDGE MANAGEMENT PRACTICES ON IS OUTSOURCING SUCCESS IN TELECOMMUNICATION SECTOR

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This dissertation is dedicated to my beloved parents and grandparents,
my dearest siblings, and to all whom were beside me for their endless support and
encouragement.

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ABSTRAK

Khidmat luaran (outsourcing) bagi sistem maklumat boleh ditakrifkan sebagai peralihan sebahagian atau seluruh fungsi-fungsi sistem maklumat di dalam organisasi kepada pembekal perkhidmatan luaran untuk memperolehi keuntungan ekonomi, teknologi dan strategik. Untuk mendapatkan kesan kepada pengurangan kos, khidmat luaran telah menjadi satu pilihan penting bagi sesebuah organisasi di seluruh dunia. Untuk mencapai matlamat di dalam khidmat luaran bagi sistem maklumat tidak mudah, terdapat faktor-faktor yang perlu diambil untuk memperolehi keuntungan daripada khidmat luaran tersebut sehingga berjaya, terutamanya amalan pengurusan pengetahuan (knowledge management practices). Amalan pengurusan pengetahuan diartikan sebagai aktiviti penciptaaan, perkongsian dan pengamalan pengetahuan. Beberapa organisasi melihat pengurusan pengetahuan sebagai faktor kritikal di dalam kejayaan khidmat luaran bagi sistem maklumat. Kajian ini bertujuan untuk mengkaji kesan amalan pengurusan pengetahuan (knowledge management practices) terhadap kejayaan khidmat luaran bagi sistem maklumat melalui faktor-faktor penentu khidmat luaran itu sendiri. Knowledge management practices ini dibahagikan kepada tiga iaitu penciptaan pengetahuan, perkongsian pengetahuan dan penggunaannya pengetahuan; manakala faktor-faktor penentu khidmat luaran bagi sistem maklumat dibahagikan kepada dua iaitu kualiti komunikasi dan kualiti perkongsian. Kajian ini menggunakan kaedah penyelidikan kuantitatif dengan menyertai 66 pengurus projek di sektor Telekomunikasi Indonesia. Hasil kajian menunjukkan pengamalan pengetahuan memiliki hubungan yang kuat dengan keberjayaan khidmat luaran bagi sistem maklumat. Kualiti komunikasi pula memiliki hubungan yang kuat dengan kualiti perkongsian. Model amalan pengurusan pengetahuan ini boleh digunakan organisasi untuk menyelesaikan permasalahan pada khidmat luaran bagi system informasi. Sehingga dapat membantu organisasi tersebut dalam memperolehi keuntungan dari khidmat luaran itu sendiri.

ABSTRACT

Information System (IS) outsourcing can be defined as turning over part or all of an organization's IS functions to external service provider, to acquire economic, technological, and strategic advantage. In regards on cost-effective access to specialized computing power or system development skill, outsourcing has become an important option for organization around the world. But, it is not easy to achieve goals in IS outsourcing; there are factors that need to take to achieved the overall organizational advantage obtained from IS outsourcing so that one organization can categorized it's IS outsourcing conducted as success. In particular, Knowledge Management (KM) practices defined as the process of knowledge management called knowledge cycle which includes the activities of creation, sharing and application of knowledge. In many organizations, KM seen as a key factor to gain and sustain competitive advantage. Furthermore, knowledge seen as crucial factors in IS outsourcing success. This study aims to examine the relationship of knowledge management practices (knowledge creation, knowledge sharing, and knowledge application) on IS outsourcing success through IS outsourcing determinants (communication quality and partnership quality). This study used quantitative research methodology by participating 66 projects managers in Indonesian Telecommunication sector. The results revealed knowledge application as the last phase in knowledge management practices have significantly affect IS outsourcing success through communication quality and partnership quality as IS outsourcing determinants. Finally, providing knowledge management practices model can be used as guidance by those organizations which conduct IS outsourcing to achieve IS outsourcing success and to obtain the overall organizational advantage from IS outsourcing.

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CHAPTER 1

INTRODUCTION

1.1   Introduction

Since 1990s outsourcing has always be a trend in rapidly changing world of business environment (Earl, 1996). Outsourcing is when an organization acquires goods and/or services from an outside source, while term procurement is widely used for outsourcing in government (Schwalbe, 2010). In regards on cost-effective access to specialized computing power or system development skill, outsourcing has become an important option for organization around the world (Lee, 2001). According to the outsourcing statistic from Information Technology Association of America (ITAA), the spending for global sources of computer software and services is increasing from about $15 billion in 2005 to $38 billion in 2010 and expected to grow at a compound annual rate of about 20%.

As outsourcing is considered a strategically and economically good choice in enhancing organization performance, the growth of Information System (IS) outsourcing project has also increased. Not only reduce both fixed and recurrent costs, outsourcing projects allow the client organization to focus on its core business, gain access to specific skills and technologies, provide flexibility, and at most, it increase accountability (Mary C. Lacity, Khan, & Willcocks, 2009; Schwalbe, 2010).

IS outsourcing can be defined as turning over part or all of an organization's IS functions to external service provider, to acquire economic, technological, and strategic advantage (Loh & Venkatraman, 1992). This products or services includes application development and maintenance, web site or e-commerce systems, disaster recovery services, data centre operation and helpdesk, IT security, desktop support, hardware, network devices and other computer peripheral.

Despite of the advantages brought by outsourcing projects, there is still big issue concerning outsourcing practices. Aberdeen Group reported that nearly 50% of outsourced projects fail outright, or fail to meet expectations. This failing trend caused by lack of executive-level support, communication, knowledge gap and the organizations ability to manage its vendor continues to challenge the outsourcing worlds (Sourcingmag.com, 2013). From the statistics reported, Aberdeen Group also written that 76% of the organizations stated vendor management effort and costs were much higher than expected, while 30% reported ongoing issues with vendor management processes (e.g., inadequate governance and conflict resolution procedures) and 51% reported that vendor was not performing to expectations. In the end, organizations that doing outsourcing (organization's outsource) still on challenge where the average cost savings for projects was merely 26% (drodenbaugh, 2010; Outsourcing-Today.com, 2011).

1.2 Background of Problem

Nowadays, many organizations turning to outsourcing in considerations on cost effectiveness (Fisher, Hirschheim, & Jacobs, 2008; M. Lacity, Hirschheim, & Willcocks, 1994), flexibility and core business's refocusing (Mary C Lacity, Feeny, & Willcocks, 2003; Linder, 2004; Quinn, 1999, 2000; Ross & Beath, 2006). Despite of the advantages brought by successful outsourcing, several researchers have been found that some of unsuccessful of outsourcing driven escalation of costs as business

changes (Akomode, Lees, & Irgens, 1998; Foogooa, 2008; Sparrow, 2003) and given negative impact on business strategy (Sparrow, 2003). Previous studied reported, the trend on this unsuccessful of outsourcing project mainly because of lack organizational capability on managing their IS services including vendor and the ability on establishing good partnership (trust and contractual) between organization's outsource and vendor (Mary C Lacity et al., 2003). Besides, in IS outsourcing project, lack of communication between organization's outsource-vendor relationships also identified as an important obstacle to IS outsourcing success (Zainuddin, Bassellier, & Benbasat, 2010). Many experts stated that the greatest threat to the success of IS outsourcing projects is failure to communicate (Schwalbe, 2010). Moreover, in constantly changing of information technology field, technical jargon brings a great deal to IS outsourcing project success by created the knowledge gap between organization's outsource and vendor. This often complicates matters and confuse the organization's outsource. In IS outsourcing context, organization without proper knowledge and understanding could encounter poor performance. Thus knowledge asymmetry between organization's outsource and vendor tends to favour the vendor, and the organization loses control on project (J. Y. Park, Im, & Kim, 2011). In other hand, this knowledge asymmetry resulted on an expectation gap between organization's outsource and vendor. However, there is a need to combat those trends mentioned earlier on IS outsourcing success.

Along with the growing of IS outsourcing, Knowledge Management (KM) practices in outsourcing project became more popular among both practitioners and researchers. The advent of 21st Century has seen a greater needs for organizations to become more dynamic, tempered by their ability to build successive experiences to improve business processes (Ward & Aurum, 2004). To deal with today's rapidly changing and uncertain business environment, almost 80% of the world's largest organizations have implemented KM solutions (Bryan & Joyce, 2005; Lawton, 2001). For many organizations, KM seen as a key factor to gain and sustain competitive advantage (Zhang, Zeng, & Huang, 2007). In particular, knowledge is a crucial factor in IS outsourcing decisions (Blumenberg, Wagner, & Beimborn, 2009). In the study conducted on 2007, (Zhang et al., 2007) found that knowledge transferring and sharing as one of the critical success factors for IS outsourcing

implementation. Moreover, knowledge sharing seen as an opportunity to create a common language of understanding among stakeholders involved and to increase the knowledge of the other's knowledge domain in the project (Edwards, 2003). Meanwhile, knowledge creation and partnership and/or strategic alliance are complement each other in IS outsourcing context (Fowdar & Nagowah, 2012).

1.3   Statement of Problem

From the initial study conducted involving 12 organizations from both client and vendor perspective in Telecommunication sector, found that 50% of IS outsourcing projects out of the entire procurement conducted were challenged, where they were generally delivered late, went over budget, and/or were delivered with uncompleted requirements. And the additions 10% were considered a complete failure due to cancellation prior to delivery or fall outright. Moreover, 83% of the organizations stated that the biggest issues and problems faced are mainly because of communication problem such as different or mismatched expectation and knowledge gap between client's organization and vendor. Meanwhile, IS outsourcing is a knowledge-intensive activity. As mentioned previously, knowledge also play an important part in IS outsourcing project. Both practitioners and researchers has long recognized a need for systematic knowledge in IS project to support project development process. Especially in outsourcing project with high turnover and complexity. While the need for KM in IS outsourcing project are well recognized, surprisingly there is a contradiction in practice. From 12 organizations surveyed trough online open-ended questions, 91.7% of the organizations basically know the basic idea about project documentation, information sharing and synchronization of objectives between client's organization and vendor. But only 50% of them aware the importance of KM in IS outsourcing projects, so that they implemented KM into practice. Meanwhile, there is relatively little empirical research has been investigated the relationship of KM practices in IS outsourcing project with its success. Furthermore, there is no study has been conducted on relationship of KM activities

adopted in forms KM cycle on IS outsourcing determinants to ensure the IS outsourcing success. This study will investigate the impact of knowledge management practices on IS outsourcing determinants as well as its relation with IS outsourcing success on client's organizations perspective.

1.4   Research Questions

This study presents an empirical study to examine the relationship of knowledge management practices adopted in project development processes on IS outsourcing projects success relationship. Moreover, this study attempt to investigate how those knowledge management practices could influences communication and partnership quality as IS outsourcing determinants to ensure IS outsourcing project success based on client's organizations perspective by answering the following study questions:

(i)   What are the problems faced by organizations that conduct outsourcing in IS outsourcing success context?

(ii)   What is the conceptual model of knowledge management practices to achieve IS outsourcing success?

(iii)   How to evaluate the conceptual model proposed to achieve IS outsourcing success?

1.5   Research Objectives

The objectives of this study are:

(i)   To identify problems faced by organizations that conduct outsourcing in IS outsourcing success context.

(ii)   To produce the conceptual model of knowledge management practices to achieve IS outsourcing success.

(iii) To evaluate the conceptual model proposed to achieve IS outsourcing success.

1.6   Significance of Study

The significance of this study is to examine the relationship of knowledge management practices on IS outsourcing success. Firstly, this study could help to examine whether knowledge management practices have a significance influence to IS outsourcing success. Secondly, this study helps to understand, to what extent of this knowledge management practices could affect IS outsourcing success. Moreover, the results of this study can be useful for organizations that conduct IS outsourcing in consideration to solve the problems faced to help them achieved the overall organizational advantage obtained from IS outsourcing.

1.7   Scope of Study

This study focus on knowledge management practices on IS outsourcing success trough IS outsourcing determinants on client's organizations perspective. To

that extent quantitative study will be conducted as a method for data collection through online survey questionnaire. This study tested using IS outsourcing projects from 2010-2013 in telecommunication sector in Indonesia as unit analysis. IS outsourcing project type mentioned includes any one or combination of the following: system planning, application analysis and design, application development, operation and maintenance, system integration, data centre operation, telecommunication management and maintenance, software, hardware products, facilities management (e.g., PC management), and end-user support (e.g., training). The participants of this study are IS manager, team leader and supervisor from procurement/supply centre division that have been involved in outsourcing project.

1.8   Conclusion

This research aims to study the relationship of knowledge management practices on IS outsourcing success relationship, which recently become a growing area and concern for both practitioners and researchers. This study try to examine the relationship of knowledge management practices on IS outsourcing determinants and to investigate the relationship of knowledge management practices on IS outsourcing success through IS outsourcing determinants. Which expected that through this study will help those organizations which conduct outsourcing by solving the problems their faces so that it can help them achieved the overall organizational advantage obtained from IS outsourcing.

This study is structured into five chapters. Chapter one has been discussed thoroughly in this chapter. It discussed about the overview of the research, problem statement, research questions, and research objectives, scope of study and significance of the study. Chapter two addresses the literature review and it comprises of as follows: (a) Outsourcing and Information Outsourcing (IS) Outsourcing Trends, (b) Information System (IS) Outsourcing Motivations, (c)

Determinants of Information System (IS) Outsourcing Success, (d) Knowledge Management (KM) in IS outsourcing, and (e) Knowledge Management (KM) Practices. Chapter three explains the research methodology applied. It includes a description of the research sampling as well as the participants, the instrumentation used, data collection and sampling procedures. Chapter four contains the analysis and findings, comprises data analysis, statistical results and interpretation of the data that was collected. Finally, summary, discussion, recommendations and conclusion follow in chapter five.

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