

European, Mediterranean & Middle Eastern Conference on Information Systems 2013(**EMOIS2013**)
October 17-18 2013, Windsor, United Kingdom

Impact of Knowledge Management Processes on Organisational Performance; a Preliminary Study

Mohammed Tubigi, Information Systems Evaluation and Integration Network Group (ISEING), Brunel Business School, Brunel University, UK

mohammed.tubigi@brunel.ac.uk

Sarmad N. Alshawi, Information Systems Evaluation and Integration Network Group (ISEING), Brunel Business School, Brunel University, UK

Sarmad.alshawi@brunel.ac.uk

Hamid Alalwany, Information Systems Evaluation and Integration Network Group (ISEING), Brunel Business School, Brunel University, UK

Alalwany@gmail.com

Abstract

Despite the increasing number of studies relating to Knowledge Management (KM) in developed countries, few studies have explored this issue within the context of developing countries. Moreover, some industries have been affected more acutely than others in the transition to a knowledge-based economy. Thus, the purpose of this paper is to evaluate KM processes and to investigate the impact on organisational performance (OP). The authors propose a conceptual model through an in-depth investigation of the previous and current studies in the area of KM and OP. It is envisaged that this model can play a role in guiding the process of KM implementation in order to maximise the beneficial effects of KM processes on OP. An inductive qualitative approach was used based on a preliminary study. A pilot study was conducted; the study involved the use of interview as a primary data collection technique. Content analysis approach was used to identify ideas relevant to the main themes. The study showed that knowledge usage is the most influential aspect of KM that impacts OP. Moreover, the study revealed that knowledge transfer is a common KM process employed by organisations. Accordingly, it was ranked as the second most influential factor of KM with respect to OP.

Keywords: Knowledge Management, Knowledge Management Processes, Organisational Performance, Pilot Study.

1. Introduction

Most of the available studies relating to KM have considered organisational knowledge as a significant asset for gaining competitive advantage and as a significant contributor to the success and survival of any organisation within a highly competitive business environment (e.g. Zack et al, 2009; Marqués & Simón, 2006; Hasan & Al-Hawari, 2003 and Claycomb et al, 2002). Subsequently, investigation of some aspects of KM (mainly KM processes) is viewed as an imperative issue for intensive research. As a result of this, effective implementation of KM processes has become a key strategy for improving OP since suitable management and application of knowledge can assist organisations to be more creative, intelligent and better able to adapt to an ever changing business climate (Wong and Aspinwall, 2004).

Indeed, KM can be seen as a strategy that assists organisations to use knowledge to envisage, make and control the whole decision making process (Kongpichayanond, 2009). Furthermore, enhancing and cultivating the individual knowledge of members of an organisation is a clear strategy for developing a continuous organisational learning that can lead to better performance (Nonaka, 1998; O'Dell and Grayson, 1998). However, despite the potential benefits that can be gained from utilising KM in the workplace, and relatively the large number of studies relating to KM concept, there have been a limited number of studies analysing the ways in which OP can be influenced by KM. Here comes the main contribution of this analytical study through proposing an applicable conceptual model for the interaction between a comprehensive set of KM processes and a set of OP measurements. To this end, this study seeks to provide an in-depth examination into the practices and implications of KM within a specific socio-cultural context. This will potentially enables the development of a conceptual model for KM implementation that can improve the performance of organisations. The overall importance of this study is derived from the importance of KM as a strategic organisational tool as well as the potential impact of KM processes on the organisational overall performance.

Based on this argument, the current study seeks mainly to answer the following main research question:

What is the impact of KM processes (creation, acquisition, Knowledge modification, immediate use, Archiving, transfer, Translation, user access, and Disposal) on organisational performance within the context of Airline Industry?

2. Knowledge Management

Knowledge is an invisible and intangible asset and thus difficult to be measured or managed by traditional parameters (Al-adaileh and Al-atawi, 2011). Therefore, management of knowledge is also more comprehensive than the simple management of information. It had been hypothesised that knowledge is comprised of information along with the possibility of ideas, obligations, inspirations, human talent, capabilities, and perceptions (Grey, 1996). Nevertheless, Nonaka and Takeuchi (1995) define knowledge as a procedure of mitigating personal idea towards actuality. However, these two definitions stress the involvement of human beings and as Beveren (2002,p.19) asserts “*even though some argue knowledge can be acquired, stored and used outside of the human brain, knowledge cannot exist outside of the human brain and that only information and data can exist outside of the brain*”. It is clear therefore that KM goes far beyond the management of information and data but must necessarily involve the information contained within the minds of the firm's employees.

Depending on which view of knowledge is adopted, the focus of KM must be different. According to Alavi and Leidner (2001) if knowledge is viewed as a process, then the implied KM focus is on the knowledge flow and the processes of creating, sharing, and distributing knowledge, if knowledge is viewed as an object, then KM should focus upon the building and managing of knowledge stocks. In spite of the fact that KM has become an important line of research in the last few years, it is still difficult to find a conceptualisation that is commonly accepted by a majority. This is unsurprising given that knowledge is, in itself, both a tangible and intangible resource (Hall, 1993).

3. Knowledge Management Processes

Chen (1998) stated that KM processes is nine namely, selection, acquisition, learning, creation, dissemination, construction, storage, management systems, and culture. An effective organisational environment and the implementation of KM processes should increase the quality as well as quantity of both explicit and tacit knowledge of individuals, teams and the whole organisation (Sanchez and Palacios, 2008.). A more comprehensive view of the constituent KM processes is provided by Zaim (2006) who claims that it is possible to compose a more comprehensive process-oriented view of KM. He stated that: “*KM is the systematic management of all activities and processes referred to generation and development, codification and storage, transferring and sharing, and utilisation of knowledge for an organisation’s competitive edge*” (Zaim, 2006, p.3). Process-oriented definition of KM was also emphasised by Jashapara (2004) who revealed that KM involves any practice or process of acquiring, creating, sharing, capturing and using knowledge, wherever it resides, to enhance organisations learning and performance.

In fact, researchers differ in terms of their appreciation of KM processes and different researches have adopted different processes of KM. Table 1 below provides a summary of some of these processes.

Table 1: Summary of KM processes

Author	Processes
Alavi and Leidner (2001)	Knowledge creation, knowledge sharing, knowledge distribution.
De Jarnett (1996)	Knowledge construction, knowledge embodiment, knowledge dissemination and use, knowledge retention and refinement.
Fong and Choi (2009)	Knowledge acquisition, knowledge creation, knowledge storage, knowledge distribution, knowledge use, knowledge maintaining.
Lettieri et al (2004)	KM cycle in non-profit organisation, storage, retrieval, diffusion and presentation, application, creation
Mills and Smith (2011)	Knowledge creation, knowledge acquisition.
Mishra and Bhaskar (2011)	Knowledge creation.
Quintas et al (1997)	Process or practice of crating, acquiring, capturing, sharing, and using knowledge
Singh and Soltani (2010)	Knowledge creation, knowledge use, knowledge transfer.
Zack et al (2009)	Knowledge location and sharing; Knowledge experimental and creation.
Zaim et al (2007)	Knowledge generation and development; knowledge codification and storage; knowledge transfer and sharing; and knowledge utilization.
Zolingen et al (2001)	Acquiring knowledge, establishing knowledge, disseminating knowledge, developing knowledge, applying knowledge
Yang and Wang (2004)	Knowledge acquisition.

Bergeron (2003) provides probably the most detailed and, for the purposes of this study, useful description of KM processes. He used the concept of KM Life Cycle KMLC including eight processes (creation and acquisition, modification, use, transfer, archiving, translating/repurposing, access, and disposal). This study will adopt these eight processes to evaluate KMLC processes.

3.1 Knowledge creation and acquisition

The process of knowledge creation points to the ideas and actions undertaken towards the generation of new ideas or objects (Mitchell and Boyle, 2010). It is company's capability to build new ideas and solutions related to various dimensions of organisational activities, from managerial procedures to products/services to technological innovations (Un and Cuervo-Cazurra, 2004; Nonaka, 1991). The term acquisition refers to a company's capability to recognize, obtain and amass knowledge (whether internal or external) that is vital to its operations (Mills and Smith, 2011). In the creation and acquisition phase of the Knowledge Management Life Cycle, information is created or acquired internally by knowledge workers, externally through outsourcing, or purchased from an outside source, and the mechanisms for this phase including self-reporting, documentation, program, instrumentation, network, knowledge engineering (Bergeron, 2003). To that end, therefore:

- Knowledge creation and acquisition is affecting organisational performance through self-reporting, documentation, program instrumentation, networks, and knowledge engineering.

3.2 Knowledge Modification

Bhatt (2001) stated that modification or conversion process takes place along the supply chain of data, information and knowledge, he argued that organisations must speedily convert data into information, and this information into organisational knowledge to maximise benefits from this process. According to Bergeron (2003) the information through the modification phase is modified to meets the requirements of the future needs of the knowledge management and their workers, the support mechanisms of this phase include editing tools, tracking, security, and version control. To that end therefore:

- Knowledge modification is affecting organisational performance through editing tools, tracking, security, and version control.

3.3 Knowledge Use

The information is employed for whichever purpose necessary based on the situation. The range of potential uses for information is virtually unlimited depending upon the needs and activities of the knowledge workers and management within the organisation (Bergeron, 2003). Knowledge that an employee fails to use or share is of little importance to an organisation. Bhatt (2001) stated that making knowledge more active and relevant for the organisation in creating values depends on applying and sharing this knowledge. Bergeron (2003) stated that the support mechanisms for this phase are feedback system, tracking system, dissemination technology, and search technologies. To that end therefore:

- Knowledge use is affecting organisational performance through feedback systems, tracking systems, dissemination technology, and search technologies.

3.4 Knowledge Archiving

Archiving involves the storing of the information in an appropriate form that ensures the security and access to this information in the future, and this happen through information

technologies, controlled vocabularies, librarian, controlled environment, and maintenance programs (Bergeron, 2003). As stated by Alavi and Leidner(2001) the organisational memory resides in various forms such as electronic databases, written documents, codified knowledge in expert systems, organisational procedures and processes, and tacit knowledge located in individuals brain. Saedi *et al*, (2002) proposed a framework for archiving knowledge within an organisation; they revealed that any practice (e.g. development a new product, practice of solving a problem) or decision (e.g. pricing, Decision for employing) creates an organisational or individual learning that needs to be archived in organisation. They added that every practice or decision-making that occurred in organisation is a practice of knowledge or learning that must be stored and managed for future use. To that end therefore:

- Knowledge archiving is affecting organisational performance through information technologies, controlled vocabularies, librarian, controlled environment, and maintenance programs.

3.5 Knowledge Transfer

Knowledge transfer was defined as: “a process of exchange of explicit or tacit knowledge between two agents, during which one agent purposefully receives and uses the knowledge provided by another”, “Agent” can refer to an individual, a team, an organisational unit, the organisation itself or a cluster of organisations (Kumar and Ganesh,2009, p.163). Argote and Ingram (2000, p.151) define knowledge transfer as "the process through which one unit (e.g., group, department, or division) is affected by the experience of another". Knowledge transfer is about connection that ultimately depends on choice made by individuals (Dougherty, 1999). Bergeron (2003) postulated in order to increase the value of the information and to enable knowledge sharing, information should be transferred freely within the organisational context using various types of media (e.g. entrant, emails). He assumed that in this phase physical transfer, and networks are the support mechanisms. To that end therefore:

- Knowledge transfer is affecting organisational performance through physical transfer, and networks.

3.6 Knowledge Translation/Repurposing

In this phase the information might be translated from its original form into a form that is more suitable for the user (e.g. from numerical to textual form), this is important to simplify the information in order to suit the recipient's specific requirements and their own knowledge base, and this process take place through outsource expertise, and information technologies (Bergeron, 2003). Knowledge translation refers to transforming knowledge into action and covers both processes of knowledge formation and knowledge application (Graham et al, 2006). Various terms have been used to explain the procedure of transforming knowledge into action. Knowledge translation includes the coverage, quality appraisal, and modification of R&D knowledge into a comprehensible and contextually pertinent shape (Graham et al., 2006).To that end therefore:

- Knowledge translation/repurposing is affecting organisational performance through outsource expertise, and information technologies.

3.7 Knowledge Access

Bergeron (2003) show that successful KM systems should provide continuous access for authorised users through the use of query support mechanisms. A parallel access should also be available and supported by the system. Lettieri et al., (2004) make the points that knowledge distribution can be accessible to whoever can use it. Furthermore, different kind of people (e.g. managers, professionals, client, etc) perhaps could need to show the information in different ways depending on how they have to use (Lettieri et al., 2004). In fact, the value of knowledge is restricted with the ability to access it when needed to make decisions or to solve organisational problems or for whatever purpose in any given situation. The support mechanisms for this phase are corporate policy, information technology, and librarian (Bergeron, 2003). To that end therefore:

- Knowledge access is affecting organisational performance through corporate policy, information technologies, and librarian.

3.8 Knowledge Disposal

Some information will be of little or no value in the future and therefore should be destroyed or stored elsewhere through established processes and technologies in order to keep the standard body of knowledge at a level which is manageable (Bergeron, 2003). Clear, coherent procedures should be applied when selecting information for disposal or disposing them in order that valuable information does not end up being destroyed. To that end therefore:

- Knowledge disposal is affecting organisational performance through established processes, and technologies.

4. Organisational Performance

Chakravarthy (1986) argued that it is difficult to engage in comprehensive comparative analysis of the differences between the performances of companies when using traditional financial measures such as Return On Equity (ROE), Return On Capital (ROC), and Return On Sales (ROS). Similarly, Kaplan and Norton (1996) found that classic financial accounting measures such as Return On Investment (ROI) and Earning Per Share (EPS) can be deceptive when providing indications regarding the issues of continuous progress and innovation. This suggests that these traditional accounting practices with their focus on short-term indicators such as share prices, turn over, cash flow and profit are not actually appropriate for assessing the overall performance of corporations, whereas non-financial elements such as stakeholders, investors and customers have recently been recognised as more accurate indicators (Edvinsson, 1997; Lee, Lee and Kang, 2005). Many scholars have therefore felt it necessary to attempt to measure other OP indicators when attempting to investigate the effects of KM including non-financial performance measures such as productivity (Lapre and Wassenhove, 2001), quality (Mukherjee, Lapre, and Wassenhove, 1998), and innovation (Francisco and Guadamillas, 2002).

For every scholar or practitioner within business and management disciplines, performance is the paramount concern (Politis, 2002). An empirically tested model valid in modern organisations namely, Dynamic Multi-dimensional Performance (DMP) framework has been developed by Maltz, Shenhar and Reilly (2003) for considering financial and non-financial measures. This framework contains five success dimensions as explained below:

- Financial Measures: Such measures show the conventional method of organisational success. Essentially these involve measures related to revenues, profit margins or ROI.

- Customer/Market Measures: These measures signify the relationship between a company and its customers. Customer-focused organisations are skilled at knowing the needs of their customers, and have ability to build products and services that fulfil these needs. These companies are capable of satisfying their customers and maintaining high customer retention rates.
- Process Measures: These depict the efficiency and extent of constant business process improvement within an organisation. In the past decade business process improvement has been one of the most popular business themes along with Total Quality Management, learning organisations, and team based efforts.
- People Development Measures: These measures appreciate the important role of stakeholders in the accomplishment of organisational goals. Also, the quality of employee skills, dedication to technology leadership, and human resource development play a vital role in the process of attaining organisational aims.
- Preparing for the Future Measures: These measures include scales such as excellence in strategic planning, critical partnerships and pacts, anticipation and preparation for future challenges in the business environment, and investments in new markets and technologies. Essentially, these are aims of future.

This research shall adopt these five performance measures proposed by Maltz *et al.*, (2003) to evaluate the organisational performance as they provide a holistic approach to measuring organisational success and are comprehensive and clear in their identification of measurement tools.

5. Knowledge Management Processes Impact on Organisational Performance

The main issue for scholars dealing with the area of KM is attempting to examine the ways in which it affects OP. A body of research has highlighted the importance of knowledge in company performance, and organisations are increasingly concerned with managing their knowledge effectively to keep ahead of the competition. Yet, according to Kalling (2003), current research into KM does not identify or offer a clear understanding of the role of KM in improving organisation's performance.

AL Maani (2009) attempts to identify the attitudes of managers at the Central Ministries of Jordan towards applying the concept of KM, and towards its impact on their performance. Also, the study attempted to examine the differences in the attitudes of managers according to their demographic characteristics. This study included (260) managers. The study showed that Ministries adopted KM at a moderate level. The level of managers' performance was high. There was a significant statistical impact of KM variables: (knowledge creation, knowledge teams, knowledge application, knowledge, Sharing, knowledge storage, and KM technology) on managers' performance. KM interpreted (40.9%) of the variance in managers' performance.

Zawawi, *et al* (2011) conducted a study into operations-based knowledge management within the Saudi Arabian airline industry. One of their findings is that the field of KM is far less well understood in Saudi Arabia than it is in other parts of the world. They argue that, despite the particular importance of KM to such an industry, KM has often "*taken a back seat*" (p164). They also found that the Western KM literature is overly reliant upon IT based solutions and as a result, is less applicable to countries that are not as comprehensive in their use of IT solutions as the West

Tanriverdi (2005) only found a moderately weak relationship ($r = 0.15$ to 0.17) between a firm's financial performance (ROA and Tobin's Q) and its ability to create, share, integrate, and use knowledge. As Davenport (1999) show that, although the relationship between KM and performance indicators has been discussed at length of balance sheet, exchange value, market value, etc, few firms have been able to create a causal relationship between KM activities and OP utilising traditional measurements. Many scholars have tried to assess KM's contribution such as Su, Chen and Sha (2006), who claim that knowledge work can lead to new technologies to develop new products and ways of working. Moreover, the knowledge base of a company is commonly viewed as the fundamental underlying factor in performance levels (Lai and Lee, 2007). For a number of researchers; knowledge, which includes all types of strategic assets, is the only source of attaining sustainable higher performance (Grant, 1996; Spender, 1996; Teece, 2000; Eisenhardt and Santos, 2002; Amit and Schoemaker, 1993; Krogh and Roos, 1996).

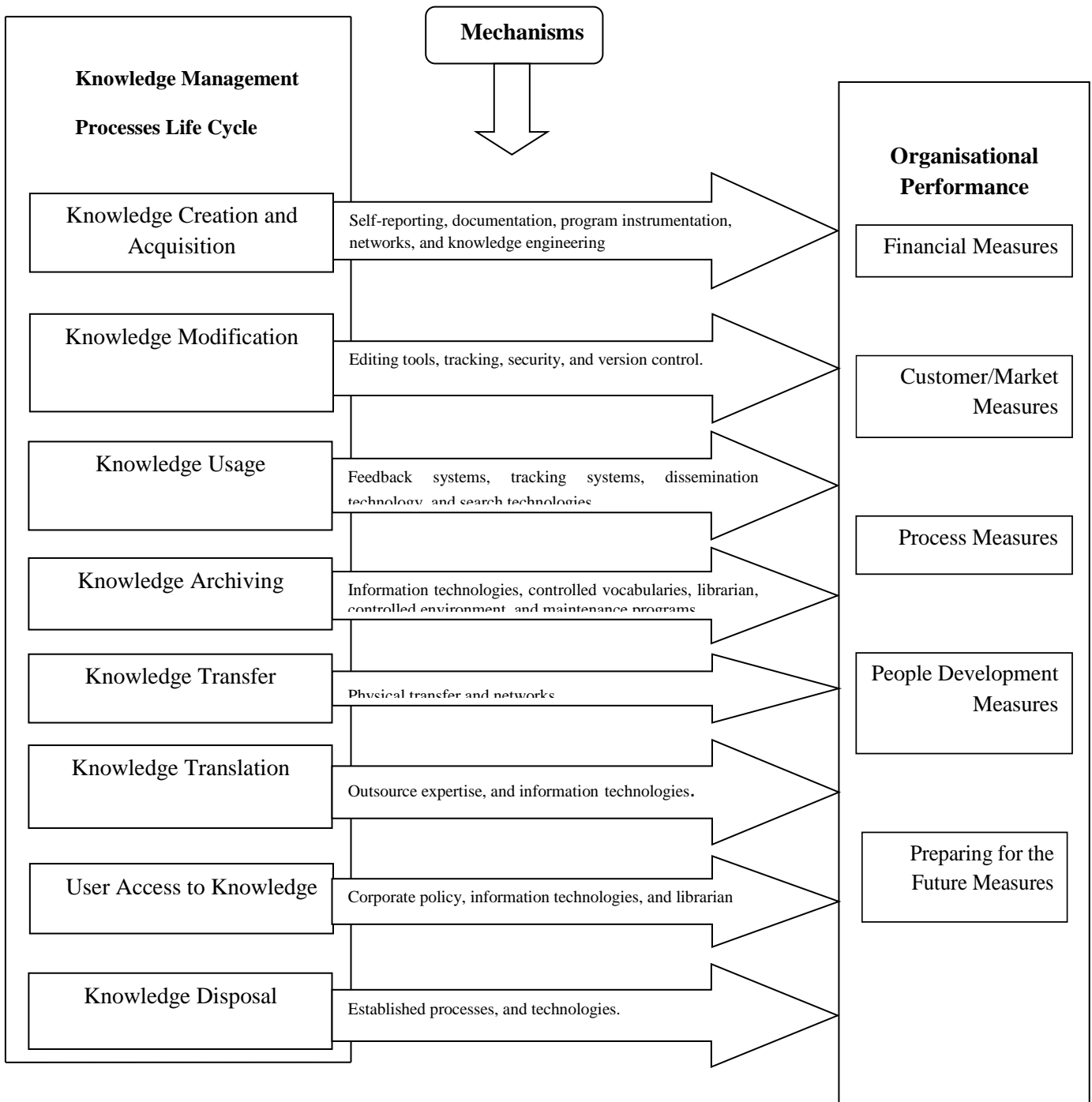
It must be noted that there is a significant gap in the literature of "*large-scale empirical evidence that KM makes a difference to organisational performance*" (Zack *et al.*, 2009, p.393). This has translated into problems for practitioners. For example, in a survey of 431 US and European organisations by the Ernst & Young Centre for Business Innovation, the most difficult obstacle faced in carrying out KM practices was found to be "*measuring the value of knowledge assets and/or impact of knowledge management*" (Ruggles, 1998, p.82). An empirical study carried out on 222 Spanish companies in the biotechnology and telecom industries by Marqués and Simón (2006) investigated the link between KM practices and organisational performance. This research depicted the way organisations embrace KM methods to achieve better results than their competitors. Furthermore, Zack *et al.*, (2009) investigated the organisational impact of KM in terms of performance. Twelve KM practices were identified and explored in terms of their impact on organisational performance within the context of business organisation in North America and Australia. The research exposed that KM practices are directly associated to company performance and this consecutively is directly associated to financial performance. Conversely, there is no direct association found between KM practices and financial performance. In fact, the lack of capacity to directly associate OP and KM in correlation has led many researchers to extrapolate from the association they are able to apprise positively. For instance, Lee and Choi (2003) argued that as long as KM practices improve portions of company performance, financial performance will improve. They found direct relationship between KM practices and various intermediary measures of strategic organisational performance such as operational quality, customer relationship and product leadership which consequently result in positive financial performance.

Since knowledge is rapidly becoming a very important measure of the organisational future performance (Choi and Lee, 2002), it is therefore vital that indicators and measurement techniques are developed in order to allow managers to handle the organisational knowledge better.

6. Conceptual Model

Based on the previous discussion, the following conceptual research model (Figure 1) was proposed as a platform for exploration of the influential relationship between a set of KM processes (creation and acquisition, modification, use, transfer, archiving, translating/repurposing, access, and disposal) and OP. The first eight arrows represent the Knowledge Management Processes Life Cycle and its relationship to Organisational Performance.

Figure 1: Research Conceptual Model



7. Research Methodology

The study aims mainly to derive a conceptual model to explain the interrelationships between KM processes and some important selected measurements of organisational performance. It outlines some initial correlations that will be tested more deeply in later stages to develop a model that is appropriate to explain the issue of KM processes and their impact on organisational performance within a specific context. The scarcity of the available studies concerning this research topic within the developing countries motivated the researchers to conduct such a preliminary study to build such model. This research adopts a qualitative

research paradigm demonstrating the main aspects of inductive approach. The use of this research paradigm is justified based on the need to collect in-depth data that are necessary to derive the adjusted model. In practice, the research variables were mainly derived from the available studies. Then, a conceptual research framework was proposed. Retesting of the relatively large number of variables was expected to validate the importance of KM processes and their potential impact on organisational performance. This means that the variables generated from the available studies were not taken for granted but were used as a framework for KM processes.

8. Results and Discussion

Since the researchers used content analysis, various aspects of KM were investigated in detail and interview questionnaire was prepared to observe the prime processes of knowledge management and their impact on organisational performance. Key features of all the KM processes were investigated in this pilot study. Five participants managers coded (M1 to M5) from one Airline company were selected for this study in order to have the true picture that how organisational performance is seen by the employees who were chosen from various categories from managerial staff.

8.1 Knowledge Creation/Acquisition

(M1, M3) managers emphasised that knowledge creation and acquisition as a KM practices being employed by the company. This agrees with Obaisat (2005) and Mills & Smith (2011) who emphasised the high level of perception of the creation and acquisition managers in different contexts. While (M2, M4, and M5) managers has mentioned that knowledge creation and acquisition is not employed in the company. Furthermore, (M1, M3) have ranked knowledge creation and acquisition as a highest knowledge management practice used in the company. In addition, (M3, M4) have selected knowledge creation and acquisition as the most influential processes on organisational performance. (M1) has chosen program instrumentation as a mechanism to create and acquire knowledge, while (M2) selected self-reporting and documentation as the mechanisms used by the company to create and acquired knowledge. (M3) selected self-reporting and documentation as a mechanisms for knowledge creation and acquisition. (M4) selected documentation as a mechanism to create and acquired knowledge, while (M5) selected self-reporting, documentation, program instrumentation, networks as mechanisms to create and acquire knowledge.

8.2 Knowledge Modification

Only (M5) selected knowledge modification as the process being used by the company. (M1) ranked knowledge modification as moderate process while (M2) ranked it as lowest knowledge management process being used in the company. In respond to the question about the most influential processes on organisation performance, the participants agree that knowledge modification came in the middle neither high nor low influential process on organisation performance. Bhatt (2001) stated that modification or conversion process takes place along the supply chain of data, information and knowledge, he argued that organisations must speedily convert data into information, and this information into organisational knowledge to maximise benefits from this process. In respond the question about the mechanisms being used to modify knowledge, tracking was choosing by (M1, M5), editing tools and security were choosing by (M2, M5), version control were selected by (M3, M4, M5).

8.3 Knowledge usage

Managers (M2, M4, and M5) selected knowledge usage as the process being employed by the company. This has been supported by Daud and Yusoff (2010) who contend that employees should collaborate to use knowledge for the benefits of their organisation. (M1, M2) have ranked knowledge usage as a highest practice in the company. In response to the question about KM practices and their impact on organisation performance, the managers (M2, M3, M4, and M5) selected knowledge usage as the most influential process on organisation performance. Finally, in response to the question about the mechanisms being used to indicate the use of knowledge, (M1, M2, and M5) have selected feedback system while M3 has no idea, and M4 selected tracking system.

8.4 Knowledge Archiving

The managers (M2, M4, and M5) have selected knowledge archiving process being employed by the company. (M4, M5) have ranked knowledge archiving as the highest process being used by the company, while (M1) ranked it as lowest, in the meantime (M2) ranked it as moderate process. In addition, (M2) selected knowledge archiving as the most influential process on organisation performance. Finally, (M1, M2, M4, M5) have selected IT as the mechanism to archive knowledge. The findings concerning knowledge usage and archiving agree with most of the previous studies in other contexts (e.g. Hasan & Al-Hawari 2003; Marqués & Simón 2006; Moorthy & Polly 2010; Mills & Smith 2011).

8.5 Knowledge Transfer

In knowledge transfer process, all the managers have selected knowledge transfer as a process being employed by the company except (M4). None of the managers ranked knowledge transfer as a highest process being used by the company; nevertheless, (M5) selected it as the lowest process. In response to the question about KM practice and their impact on organisation performance, only (M3, M5) selected knowledge transfer as the most influential process on organisation performance. Networks are the most common mechanism being used to transfer knowledge. The use of networks is also supported by Bergeron (2003) who postulated that in order to increase the value of the information and to enable knowledge sharing, information should be transferred freely within the organisational context using various types of media (e.g. entrant, emails) and he assumed that in this phase physical transfer, and networks are the support mechanisms. Physical transfer has been selected by (M3, M4). The importance of knowledge transfer was also emphasised by other researchers including Al-adaileh and Al-atawi (2011) and Ladd, A & Ward, M. (2002).

8.6 Knowledge Translation/Repurposing

Knowledge translation has been selected as a process being employed by the company by all the managers except (M1). This was cleared by Graham *et al* (2006) who revealed that knowledge translation includes the coverage, quality appraisal, and modification of R&D knowledge into a comprehensible and contextually pertinent shape. The (M2, M5) have ranked knowledge translation as moderate process. None of the participants selected knowledge translation as the most influential process on organisation performance. IT has been chosen as the mechanism to translate knowledge while (M3) has no idea about it.

8.7 User Access to Knowledge

Only (M2, M5) selected user access to knowledge as a process being employed by the company. (M2) ranked user access to knowledge as the highest process being used by the company while (M5) ranked it as moderate process. Bergeron (2003) show that successful

KM systems should provide continuous access for authorised users through the use of query support mechanisms. None of the managers selected user access to knowledge as most influential process on organisation performance. In respond to the question about mechanism being used by the company to provide the user to access the knowledge, all the participants have selected IT in the first place, then corporate policy selected by (M2, M5).

8.8 Knowledge Disposal

Some information will be of little or no value in the future and therefore should be destroyed or stored elsewhere through established processes and technologies in order to keep the standard body of knowledge at a level which is manageable (Bergeron, 2003). The managers (M2, M5) selected knowledge disposal as the process being employed by the company. None of the participants ranked knowledge disposal as the highest process being used by the company. (M1) ranked it as the lowest process, and (M5) ranked it as moderate process being used by the company. (M1, M2, M4, and M5) has selected technologies as the mechanism to dispose knowledge, while (M3) has no idea. Only (M1) selected knowledge disposal as the most influential process on organisation performance while (M3) see it has a least impact.

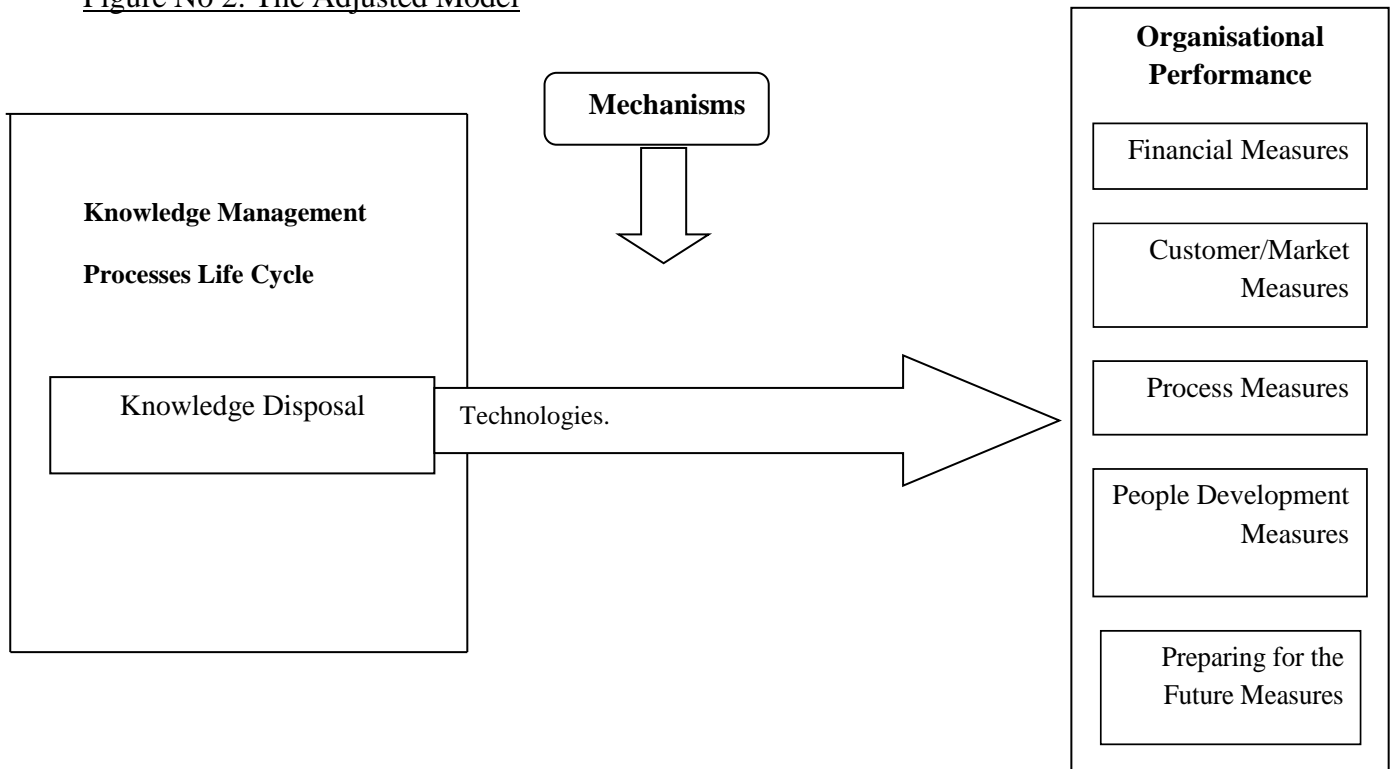
9. Finding of the Pilot Study

The findings of the pilot study were as follows: (1) 60 percent of the interviewees are familiar of the term of knowledge management; (2) most of the respondent have knowledge about the organisation's type of technologies; (3) the knowledge about organisation's profitability is little or unknown; (4) there is a lack of knowledge about the various processes of the organisation, various clients associated with the organisation, and various ventures undertaken by the organisation; (5) the interviewees revealed that KM processes can help the organisation through increasing profitability and improving employees' knowledge sharing and participation; (6) the respondents ranked KM practices of their organisation on scale from [1] lowest to knowledge modification and knowledge disposal to the rank [8] highest to knowledge use and knowledge translation; (7) the respondents agree that KM will add value to the organisation; (8) the interviewees agree that KM is very important to the organisations; (9) most of the respondents agree that self-reporting and documentation are the mechanism to create and acquired knowledge, 60 percent of the respondents sees version control is the mechanism to modify knowledge, 60 percent of the respondents agree that feedback system is the mechanism of knowledge use, 80 percent of the respondents agree that information technologies is the mechanism for archive knowledge, 20 percent of the respondents sees physical transfer is the mechanism to transfer knowledge while 80 percent sees networks is the mechanism to transfer knowledge, 80 percent of the respondents agree that information technologies is the mechanism to translate knowledge, 80 percent of the interviewees sees IT is the mechanism to provide the user with access to knowledge, 80 percent of the interviewees agree that technologies is the mechanism for knowledge disposal while 20 percent don't know; (10) the respondents sees knowledge usage, and transfer are the most influential factors that impact organisational performance; (11) finally, most of the interviewees sees financial measures are influenced by KM processes, while preparing for the future comes in the bottom of the list.

10. Adjusted Model

Based on the finding of the pilot study, the proposed model was adjusted as seen in figure 2 below. These involved modifications of the mechanisms of knowledge disposal only while other dependent and independent variables have not been changed.

Figure No 2: The Adjusted Model



Moreover, based on the outcomes of the pilot study, the research propositions modified only on knowledge disposal as follow:

- Knowledge disposal is affecting organisational performance through technologies.

11. Conclusions

Notwithstanding the increasing number of studies relating to KM in developed countries, few studies have explored this issue within the context of developing countries. Most of the available studies relating to KM have considered organisational knowledge as a significant asset for gaining competitive advantage and as a significant contributor to the success and survival of any organisation within a highly competitive business environment. Accordingly the problem of this research is first derived from the scarcity of developing countries studies relating to KM in general and its potential impact on the organisational performance. Therefore, this study provides analysis of the KM processes and revealed a state of disagreement among the researchers not only concerning the processes involved within the KM concept but also the impact of these processes on OP. This study has identified eight KM processes namely knowledge creation and acquisition, knowledge modification, knowledge usage, knowledge archiving, knowledge transfer, knowledge translation/repurposing, user access knowledge, and knowledge disposal that are seen as comprehensive processes representing the valuable aspects of organisational knowledge. These processes have also been adopted by Bergeron (2003). However, comparing with other KM processes that were identified by other scholars and researchers, this study concludes that Bergeron's classification is the most comprehensive. Furthermore, the study showed that knowledge usage as the most influential aspect of KM that impacts organisational performance and the only mechanism to dispose knowledge is technologies. Accordingly, the next empirical stage of this research would be the use of these KM processes and effort to measure their impact on

OP that might lead to more in-depth validation of these proposed processes as well as providing a guideline for effective utilisation of these processes to improve OP. This study outlined the findings of a pilot study that was made to testify the proposed conceptual model and to provide initial understanding of the interrelationships between KM processes and OP. In addition, the nature of this study as a preliminary study imposed some time and context limitations. These limitations will be dealt with in later stages of the research journey.

12. Reference

- Al-adaileh R. 2008. 'Essentials of management information systems'.Karak-Jordan: Yazeed-Publications.
- Al-Adaileh R and Al-Atawi M. 2011. 'Organisational culture impact on knowledge exchange: SaudiTelecom context'. *Journal of Knowledge Management*, 15 (2): 212-230.
- Alavi M and Leidner D. 2001. 'Review: knowledge management and knowledge management systems: conceptual foundations and research issues'. *MIS Quarterly*, 25(1): 107-136.
- Amit R and Schoemaker P.J.H. 1993. 'Strategic Assets and Organisational Rent'. *Strategic Management Journal*, 14(1): 33-46.
- Argote L and Ingram P. 2000.'Knowledge transfer: a basis for competitive advantage in firms'.*Organisational Behaviour and Human Decision Processes*, 82 (1): 150–169.
- Bergeron B. 2003. 'Essentials of knowledge management'. Hoboken, New Jersey: John Wiley & Sons, Inc.
- Beveren J.V. 2002. 'A model of knowledge that refocuses knowledge management'. *Journal of knowledge management*, 6 (1): 18-22.
- Bhatt G.D. 2001. 'Knowledge management in organisations: examining the interaction between technologies, techniques, and people'. *Journal of knowledge management*, 5(1): 68-75.
- Chakravarthy B.S.1986. 'Measuring strategic performance'. *Strategic management*, 7 (5):437-458.
- Choi B and Lee H. 2002.'Knowledge management strategy and its link to knowledge creation process'. *Expert Systems with Applications*, 23(3):173–187.
- Claycomb C, Droge C and Germain R. 2002.'Applied product quality knowledge and performance'. *International Journal of Quality & Reliability Management*, 19(6): 649-671.
- Davenport T. 1999.'Knowledge management and the broader firm: Strategy, advantage, and performance'. In Liebowitz, J. (eds) *Knowledge Management Handbook*.CRC Press: Boca Raton, 1-11.
- Daud S and Yusoff W. 2010. 'Knowledge management and firm performance in SMEs: the role of social capital as a mediating variable', *Asian Academy of Management Journal*, 15 (2):135–155.
- De Jarnett L. 1996.'Knowledge the latest thing: information strategy'. *The Executives Journal*, 12 (2):3-5.
- Dougherty V.1999. 'Knowledge is about people, not databases'. *Industrial and Commercial training*, 31 (7):262 – 266.
- Edvinsson L. 1997. 'Developing intellectual capital at skandia'. *Long Range Planning*, 30 (3):366-373.
- Fong P.S.W and Choi S.K.Y. 2009. 'The processes of knowledge management in professional

- services firms in the construction industry: a critical assessment of both theory and practice'. *Journal of Knowledge Management*, 13 (2):110-126.
- Francisco J.F and Guadamillas F. 2002. 'A case study on the implementation of knowledge management strategy oriented to innovation'. *Knowledge and Process Management*, 9 (3): 162-671.
- Gold A.H, Malhotra A and Segars A. 2001. 'Knowledge management: an organisational capabilities perspective'. *Journal of Management Information Systems*, 18 (1):185-214.
- Grey D. 1996. 'What is knowledge? : The knowledge management forum. Available at: http://www.km-forum.org/what_is.htm [Accessed 25th January 2012].
- Hasan H and Al-Hawari M. 2003. 'Managing styles and performance: a knowledge space framework'. *Journal of Knowledge Management*, 7 (4):15-28.
- Jashapara A.2004. 'Knowledge management: an integral approach'. Harlow, England: Financial Times Prentice Hall.
- Kalling T. 2003. 'Knowledge management and the occasional links with performance'. *Journal of Knowledge Management*, 7 (3):67-81.
- Kaplan R.S and Norton D.P. 1996. 'The balanced scorecard'. Boston: Harvard Business School Press.
- Kongpichayanond P. 2009. 'Knowledge management for sustained competitive advantage in mergers and acquisitions'. *Advances in developing human resources*, 11 (3):375-387.
- Krogh G and Roos J. 1996. 'Managing knowledge: perspectives on cooperation and competition'. London: Sage Publication.
- Kumar J and Ganesh L.S. 2009. 'Research on knowledge transfer in organisations: a morphology'. *Journal of Knowledge Management*, 13 (4): 161-174.
- Lai M.F and Lee G.G. 2007. 'Relationship of organisational culture toward knowledge activities'. *Business Process Management Journal*, 13 (2):306-322.
- Lapr M.A and Wassenhove L.N.V.2001. 'Creating and transferring knowledge for productivity improvement in factories'. *Management Science*, 47 (10):1311-1325.
- Lee H and Choi B. 2003. 'Knowledge management enablers, Processes, and organisational performance: an integrative view and empirical examination processes, and organisational'. *Journal of Management Information System*, 20 (1):179-228.
- Lee K.C, Lee S and Kang I.W. 2005. 'KMPI: Measuring knowledge management performance'. *Information & Management*, 42 (3):469-482.
- Leidner D and Alavi M.. 2006. 'The role of culture in knowledge management :a case study of two global firms'. *International Journal of E-Collaboration*, 2 (1):17-40.
- Lettieri E, Borga F and Savoldelli A. 2004. 'Knowledge management in non-profit Organisations'. *Journal of Knowledge Management*, 8 (6):16-30.
- Maltz A.C. Shenhar A.J and Reilly R.R. 2003. 'Beyond the balanced scorecard: refining the search for organisational success measures'. *Long Range Planning*, 36 (2):187-20.
- Marques D and Simon F. 2006. 'The effect of knowledge management on firm performance'. *Journal of Knowledge Management*, 10 (3):143-156.
- Mills A and Smith T. 2011. 'Knowledge management and organisational performance, a decomposed view'. *Journal of Knowledge Management*, 15 (1): 156-171.
- Mishra B and Bhaskar A. 2011. 'Knowledge management process in two learning organisations'. *Journal of Knowledge Management*, 15 (2): 344-359.
- Mitchell R and Boyle B. 2010. 'Knowledge creation measurement methods', *Journal of Knowledge Management*, 14 (1): 67-82.
- Moorthy S and Polley D. 2010. 'Technological knowledge breadth and depth: performance impacts', *Journal of Knowledge Management*, 14 (3): 359-377.

- Mukherjee A.S Lapre M.A and Wassenhove L.N.V. 1998. 'Knowledge driven quality improvement', *Management Science*, 44 (11): S35-S49.
- Nonaka I. 1994. 'A dynamic theory of organisational knowledge creation', *Organisation Science*, 5 (1): 14-37.
- Nonaka I and Takeuchi H. 1995. *The knowledge-creating company: how Japanese companies create the dynamics of innovation*. Oxford: Oxford University Press.
- O'Dell C and Grayson C. J. 1998. *If only we knew what we know. Identification and transfer of internal best practices*. New York: Free Press.
- Politis J.D. 2002. 'Transformational and transactional leadership enabling (disabling) knowledge acquisition of self-managed teams: the consequences for performance'. *The Leadership and Organisational Development Journal*, 23 (4): 186-197.
- Quintas P, Lefrere H and Jones G. 1997. 'Knowledge management: a strategic agenda'. *Long Range Planning*, 30 (3): 385-391.
- Ruggles R.L. 1998. 'The state of notion: knowledge management in practice'. *California Management Review*, 40 (3): 80-89.
- Sanchez M.P.S and Palacios M.A. 2008. 'Knowledge-based manufacturing enterprises: evidence from a case study'. *Journal of Manufacturing Technology Management*, 19 (4): 447-468.
- Singh A and Soltani E. 2010. 'Knowledge management practices in Indian information technology companies'. *Total Quality Management*, 21 (2): 145-157.
- Spender J.C. 1996. 'Making knowledge the basis of a dynamic theory of the firm'. *Strategic Management Journal*, 17 (10): 45-62.
- Tanriverdi H. 2005. 'Information technology relatedness, knowledge management capability, and performance of multi-business firms'. *MIS Quarterly*, 29 (2): 311-334.
- Un C.A and Cuervo-Cazurra A. 2004. 'Strategies for knowledge creation in firms'. *British Journal of Management*, 15 (S1): 27-41.
- Wong K.Y and Aspinwall E. 2004. 'Characterizing knowledge management in the small business environment', *Journal of Knowledge Management*, 8 (3): 44-61.
- Yang J and Wang C. 2004. 'Advancing organisational effectiveness and knowledge management implementation'. *Tourism Management*, 25 (5): 593-601.
- Zack M, McKeen J and Singh S. 2009. 'Knowledge management and organisational performance: an exploratory analysis'. *Journal of Knowledge Management*, 13 (6): 392-409.
- Zaim H. 2006. 'Knowledge management implementation in IZGAZ', *Journal of Economic and Social Research*, 8 (2): 1-25.
- Zaim H, Tatoglu E and Zaim S. 2007. 'Performance of knowledge management practices: a causal analysis'. *Journal of Knowledge Management*, 11 (6): 54-67.
- Zolingen S.V, Streumer J.N and Stooker M. 2001. 'Problems in knowledge management: a case study of knowledge-intensive company'. *International Journal of Training and Development*, 5 (3): 168-184