LINKAGE BETWEEN KNOWLEDGE MANAGEMENT PRACTICES AND LIBRARY USERS’ SATISFACTION AT MALAYSIAN UNIVERSITY LIBRARIES

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ABSTRACT

Academic library services have begun to apply various knowledge management (KM) practices in the provision of library services. KM has been developed to enhance the use of organizational knowledge through practices and organizational learning. KM practices include the creation, capture and/or acquisition of knowledge, its retention and organization, its dissemination and re-use, and general responsiveness to the new knowledge. The focus of this research is the assessment of KM practices, particularly creation, acquisition, capture, sharing, recording and preservation, and their effects on Library User’s Satisfaction (LUS) in Malaysian university libraries. The objective of this research is the development of a model to enhance KM processes (i.e. Creation, acquisition, capturing, sharing, recording, and preserving) and to improve library users’ satisfaction. A quantitative approach in research methodology is employed (e.g. Questionnaire) for the purpose of generating new knowledge and understanding of library concerns. The findings of this research show that the overall KM practice at six Malaysian university libraries is at a high level. The findings from the structural model indicated that two KM processes, namely knowledge creation and acquisition, are not supported in terms of KM practices at Malaysian university libraries. Other KM processes, namely capturing, sharing, recording, and preserving are fully supported towards KM practices in the library. Hence, the major contribution of this research is a model, namely KM Practice/Library User’s Satisfaction (KMP-LUS) highlighting six KM processes based on strong Structural Equation Modeling (SEM) fit indices.
ABSTRAK

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<td>Pearson Correlation Coefficient</td>
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<td>GFI</td>
<td>Goodness of Fit Index</td>
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<td>CFI</td>
<td>Comparative Fit Index</td>
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<td>RMSEA</td>
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CHAPTER 1

INTRODUCTION

1.0 Overviews

At the moment in time, knowledge and information have become key resources. These key resources are vital for the survival and preservation of any organization. This is because when faced with competition and increasingly dynamic environments, organizations are beginning to realize that there is a vast and largely untapped asset in the form of knowledge floating around them. This phenomenon occurs not only in worldwide business organizations but also in non-profit organizations such as university libraries. Libraries serve as information centers providing all kinds of learning resources (Wang et al. 2009). Huang (2007) noted that the academic library serves as both the document and information center of the university. The main mission of an academic library is to provide document and information support for teaching and research within the university. Reader categories in the academic library include professors, researchers, undergraduates, postgraduates and other personnel in the university. According to Huang (2007) and Wang et al. (2009), these readers share some common characteristics:

a) Their cultural and civilization level is high.

b) Their document requirements and requests for documents and information are clear and explicit.

c) Their service demand is greater, as they understand service standards.

d) They appreciate library history, characteristics, and current condition of the library better and therefore are better to comprehend the quality of the library service.
Recently, the conventional function of academic libraries is to collect, process, disseminate, store, and utilize information which are used to provide service to the university community (Maponya, 2004; Rajurkar, 2011). However, the environment in which academic libraries operate today is changing (Wang et al., 2009). Whatever affects a university activity will also affect the academic libraries (Wang et al., 2009). Foo et al. (2002) stated that the role of an academic library is changing to provide a competitive advantage to both university staff and students.

Traditionally, users must enter a library in person to request services such as borrowing/returning books, utilizing a reference directory, interlibrary loan, document delivery, or making a query of relevant collections of resources (Wang et al., 2009). Numerous studies have demonstrated that the core of the library service is users-oriented and must meet user demands and expectations (Huang, 2007; Macewan, 1999; Millson-Martula & Menon, 1995). Successful KM in libraries depends on their ability to utilize information and knowledge of its staff to better serve the organizational needs and their users’ satisfaction.

Knowledge Management (KM) has been defined as a “process or practice of creating, acquiring, capturing, sharing, and using knowledge, wherever it resides, to enhance learning and performance in organizations” (Skyrme & Amidon, 1997). Brendan (1999) broadly stated that KM is a process of acquisition, sharing, and usage of knowledge within organizations, including learning processes and management information systems (MIS) or, more specifically, the explicit and systematic management of vital knowledge associated with processes of creating, gathering, organizing, diffusing, use, and exploitation.

Tasmin and Woods (2007) noted that KM is a socio-technological based system that supports collaboration and integration among interlocking organizational functions to create more innovative and value-added products and services for the market. On a similar note, White (2004) defined KM as “a process of creating, storing, sharing and reusing organizational knowledge (know-how) to enable an organization to achieve its goals and objectives”. Darroch (2003) stated that KM is a process comprising of knowledge acquisition, dissemination, and use. However, Jain (2007) defined KM as the process or practice of creating, acquiring, capturing, sharing, and using knowledge.
In fact, KM is a dynamic and cyclical process which involves the entire organization’s processes by trying to map existent learning, while linking the essential processes and their strategies in search of better organizational performance, development of the products and services, quality and client’s management among others (Castroa & Costab, 2006; Wiig, 1997; Davenport & Prusak, 1998). This requires systems for the creation and maintenance of knowledge repositories, as well as cultivation and facilitation of the sharing of knowledge and organizational learning.

Townley (2001) discussed four KM processes, which were creation of a knowledge repository, improve knowledge access, enhance knowledge environment, and manage knowledge as an asset. Townley (2001) stated that “KM is based on assumptions of strategic planning”. Zack (1998) and White (2004) hold similar opinions and view knowledge as a strategic resource. Organizations that succeed in KM are more likely to view knowledge as an asset and develop organizational norms and values which support the creation and sharing of knowledge (Rowley, 1999).

This is both strategic and action oriented. In the context of this study, academic libraries refer to only university libraries. In order to demonstrate their relevance and value, academic libraries must strive to provide the right amount of information to the right client at the right time with a right expense of financial and human resources (Wen, 2005). With a stagnant or dwindling library budget, academic libraries must increase their operational efficiency in order to meet these challenges. One management tool that can help in this regard is KM. Therefore, implementing KM in academic libraries is mainly driven by its mission rather than by the competition from Internet-based reference services or electronic books. From the above definitions, it is clear that KM does not consist of only tacit knowledge as indicated in some KM literature. In fact KM comprises both tacit and explicit knowledge, which are complementary. Therefore, KM can be characterized as follows:

- The core processes of several activities, such as creating, acquiring, capturing, sharing, using and re-using knowledge;
- It includes both explicit and tacit knowledge;
- It is an ongoing activity;
- Information is the building block of KM;
- It is action oriented or application based; and,
- The main drive behind KM is to improve organizational performance.

In this regard, KM is a process of creating, acquiring, capturing, sharing, recording and preserving all knowledge activities in the academic libraries. These continuous KM processes must be carried out from time to time to make sure that all knowledge in the library can be used and does not become obsolete.

1.1 Research Background

Since the announcement of Vision 2020, the concept of the knowledge economy has become prominent across Malaysia. Knowledge management, however, only began to make a significant impact at the turn of the century. InfoSoc Malaysia 2000, a major conference held in Sarawak, and the Second Global Knowledge Conference, held in Kuala Lumpur 7 – 10th March the same year, have been said to be the event that was largely responsible for this. At the opening of the Second Global Knowledge Conference, the then Honorable Prime Minister of Malaysia, Dato Seri Dr. Mahathir bin Mohamad noted that;

“… In the Information Age which we enter, our society must be information rich… this country must most seriously enhance the production and supply of information, knowledge and wisdom and ensure their accessibility to all our people in every area of work.”

In Malaysia, interest in KM practices is still growing, especially among Malaysian universities. Stoffle (1996) stressed that the institutions of higher education must gear up for a massive increase in demand for educational services. Hawkins (2000) stated that collaboration requires actual commitment and investment of resources based on a shared vision. As a result, universities may be required to pool their resources in terms of human expertise, skills and competencies to achieve their goals (Hawkins, 2000).
The truth is that big multinational companies still lead the way, but a number of the country’s large corporations are beginning to take their steps down the KM road. KM is also creeping into the government agenda, affecting both the government’s vision for the country as a whole and the way ministerial departments operate on a day-to-day basis (Hamid & Nayan, 2005).

Nowadays, universities are faced with challenges to create and disseminate knowledge to society. Traditionally, universities have been the sites of knowledge production, storage, dissemination, and authorization (Reid, 2000). Universities and other higher education institutions face similar challenges that many non-profit and for-profit organizations face. The challenges are financial, increasing public demand, accountability, rapidly-evolving technologies, changing staff roles, diverse student demographics, competing values, and a rapidly changing world (Naidoo, 2002).

Navarro et al. (2005) stated that in a university environment, the concept of customer is not clearly defined, making these institutions difficult to manage from a marketing point of view. A review of specialized literature shows the existence of various groups that can be categorized as customers of university institutions namely students, employers, families and society. In spite of this diversity, there is a consensus that students are the main customers of these institutions. However, university libraries need to share information and knowledge within the academic community as well as the society outside the institution.

KM practice has become a key issue in universities due to changes in knowledge culture (Maponya, 2004). Santo (2005) highlighted that little has been written about KM in education. It must be note that universities are not isolated entities but exist as part of society. This is because they engage in teaching, research, and community services (Maponya, 2004; Santo, 2005).

Therefore, KM practices developed in the university through research and teaching should be relevant to the society, and promoting knowledge must act as a major factor of business of the university and higher education institutions. These demands call for the development of partnership universities and curricula which are customized to meet user needs.
1.2 Problem Statement

A large number of studies have been conducted in different countries on the satisfaction of library users'. This is a fact as library user studies are a vital aid for effective decision making, improving library facilities and information services in academic libraries (Sriram & Rajev, 2014; Thenmozhi & Gopalakrishnan, 2014). However, the problem found in this study indicate that most evaluative studies on library user satisfaction have always concentrated on students’ use of facilities, collections and services (Sarrafzadeh, Martin, & Hazeri, 2010; Townley, 2001; Yaacob, Jamaluddin, & Jusoff, 2011), but few studies have been carried out regarding knowledge processes (i.e. Creation, acquisition, capturing, sharing, recording and preserving) in terms of KM practices. Other researchers recognized that failing to satisfy the user is failing to serve the user need and satisfaction (Stamatoplos & Mackoy, 1998). Through a review of user satisfaction reports, the study has found a wealth of evidence and problems dealing with user satisfaction at Malaysian university libraries and potential barriers in relation to its adoption. The first problem reported that a small minority of participants in the present studies regard KM as solely a business phenomenon and found no direct relevance to the libraries (Sarrafzadeh et al., 2010). If a library implements part of the KM project, do library professionals need to understand the extent to which libraries can really take responsibility for KM practices? There is a need to understand what really entice the KM practices towards library user satisfaction and also a need to identify the significant process that can affect their intention to pertain KM practices. As such, research has identified a gap in terms of research conducted in different geographical locations. In an attempt to comprehend the problems confronted by the university libraries, Sarrafzadeh et al. (2010) remarked that a portion of the respondents expressed that KM does not happen only in the library, but also in the organization. All library efforts are aimed at developing better services; in any case, KM practices still remain an issue (Krishnan & Das, 2012; Tandale, Sawant, & Tandale, 2011; Townley, 2001) which has been neglected by university libraries in terms of user satisfaction. The participants believed that library may implement or be part of the KM project, but it cannot be isolated from the rest of the organization (Sarrafzadeh et al., 2010).
Daneshgar and Bosanquet (2010) have noted that a library expects KM activities to build a greater understanding for their customers, their requirements and hopefully lead to the delivery of more appropriate and timely services. This issue may lead to the unsatisfactory library services and unsuccessful KM practices in university libraries. Charged by this mission, libraries should aim higher to fulfill their user satisfaction (Tandale et al., 2011). There is acknowledgement within the literature that no matter which path librarians take for their future, greater awareness of their value and skills within the organization needs to be promulgated (Houghton & Poston-Anderson, 1998). Due to this problem, it is clear that academic libraries must transform into “libraries without walls” and recognize that the information they deal is now multi-format. Academic library collections are no longer comprised almost entirely of printed materials but are collections comprised almost of materials in multiple formats and media (Budd, 1998).

Jain (2007) stressed that inadequate staff training also effects the successful of KM practices which are dependent on adequate training plans in all the activities of KM process, e.g. training in knowledge capture, organization, dissemination, and use of new technology skills. The management must allocate adequate training to their staff. Townley (2001) and Jain (2007) posited a similar opinion, as training and support for the adoption of new knowledge and behaviors is perhaps the most important and costly part of any KM application.

A study done by Santo (2005) stated that benchmarking will be difficult if educators are unwilling to recognize their weakness. It is hoped that by emphasizing KM practices, specifically the KM processes the library could possibly reach a higher level of the Library Users’ Satisfaction Index. Different KM researchers and practitioners have different terms, methods, and views to distinguish between the types of knowledge processes into KM practice. Almost all of these views tend to see knowledge as a dichotomy (Conklin, 1996; Hildreth & Kimble, 2002). Furthermore, libraries and their users tend to see knowledge as an asset to be kept, retained, and sustained for the future.

Nonetheless, policy makers typically head librarians at Malaysian university libraries, have paid little attention to this issue. They ought to pay attention to KM practice reports in the library (Krishnan & Das, 2012; Rusuli, Tumari, Shukor, & Zin,
Tandale (2011) agreed that as a learning organization, strong leadership in the libraries is needed for supporting KM processes and sustain user satisfaction. In this regard, they prefer to generate library services and facilities reports that look more accurate and valuable information to be shared with their users rather than reporting that the knowledge processes exist in the library. Numerous researchers (e.g. Yaacob et al., 2011; Mavodza, 2010; Tasmin and Woods, 2008; Sarrafzadeh, 2008; Al-Hawamdeh, 2002; Jain 2007; Tandale, 2001; Davenport and Prusak, 1998; Nonaka and Takeuchi, 1995) have found a need for a study conducted specifically on how KM practices could help and contribute to increased user satisfaction.

Due to the limitations of existing research on this issue, there is a need to identify KM processes that may potentially influence library users’ satisfaction. This is the fact that only few studies have been conducted on the relationship between KM practices and user satisfaction in university libraries. The discussion of the research gaps above will encompass the justification and rationale for this study, in addition to the research objective.

Along these lines, it is hoped that this study could facilitate detailed road maps of new KM practice for university libraries and to overcome knowledge gaps between knowledge practices and library users’ satisfaction. As implied by the prior issues discussed, the library has to be able to show its contribution in a significant relationship of these KM process gaps, as well point out those areas in which new thinking or innovation is needed.
1.3 Research Objectives

A body of literature has explored academic library as one of the significant areas where KM processes in terms of KM practice can actively be applied. A library as a social organization has its own tradition to deal with information and knowledge. More specifically, three primary research objectives were formulated as follows:

RO1. To determine types of KM processes in the library.
RO2. To assess the significant relationship between knowledge creation, acquisition, capture, sharing, record and preserving associated with KM practices.
RO3. To develop a model that shows the relationship between KM practices and library users’ satisfaction.

1.4 Research Question

Following extensive literature review, it has been found that a relatively limited body of research has been conducted in the area of KM practices in academic libraries in Malaysia. The scarcity of research material in this area, and the paucity of academic research and data pertaining to any ongoing dialogues or research that discusses KM practices at Malaysian academic libraries, has also been highlighted in previous research results (Muhammad et al., 2011; Hamid et al., 2007; Mohayidin, Azirawani, Kamaruddin, & Margono, 2007). However, based on the background review, this research seeks to answer the following research questions in the Malaysian context.

RQ1. What types of KM process should be applied in the library?
RQ2. Is there a significant relationship between Knowledge Creation (KCr), Knowledge Acquisition (KAc), Knowledge Capture (KCa), Knowledge Sharing (KSh), Knowledge Record (KRe) and Knowledge Preservation (KPr) with KM practice?
RQ3. Is there a significant relationship in KM practices related to library users’ satisfaction?

Research objectives, questions and possible sources of information are reflected in Table 1.1.

Table 1.1: Research objectives, questions and possible sources of information

<table>
<thead>
<tr>
<th>Research Objectives</th>
<th>Research Questions</th>
<th>Possible Source Of Data</th>
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<tr>
<td>To determine types of KM process in the library.</td>
<td>What types of KM process should be applied in the library</td>
<td>Literature Questionnaires</td>
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<tr>
<td>To assess the significant relationship between knowledge creation, acquisition, capture, sharing, record and preserving associated with KM practices.</td>
<td>Is there a significant relationship between Knowledge Creation (KCr), Knowledge Acquisition (KAc), Knowledge Capture (KCa), Knowledge Sharing (KSh), Knowledge Record (KRe) and Knowledge Preservation (KPr) with KM practice?</td>
<td>Literature Questionnaires</td>
</tr>
<tr>
<td>To develop a model that shows the relationship between KM practices and library users’ satisfaction.</td>
<td>Is there a significant relationship in KM practices related to library users’ satisfaction?</td>
<td>Questionnaires</td>
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1.5 Significance of the Research

This research is discussed from the theoretical perspective and its applicability to the Library and Information Sciences (LIS) and Knowledge Management (KM). KM is a highly topical issue discussed in business and related fields that still have much ambiguity as to its nature and its theoretical basis, particularly when it comes to the LIS professions. There has been a proliferation of empirical studies on the technological and organizational dimensions to KM. However, few empirical studies have been conducted related to the relationship between KM and LIS profession.

A major feature of this research is to help break new ground in an area where relatively little research has been conducted. The results of this study could both help to advance understanding of the relationships between KM practices and the LIS
professionals in Malaysia, and to provide input into the development of the theory of KM itself.

1.6 Scope of this Research

The scope of this study focuses on the KM processes such as knowledge creation, acquisition, capturing, sharing, recording and preserving in KM practices at Malaysian university libraries. These processes may be explained in terms of the significance levels of KM practices and its relationship with library user’s satisfaction, and the extent to which the concept of KM process has existed in the library environment. In this regard, any claims for the representativeness of the findings must be placed in this essentially Malaysian context.

1.7 Originality of the study

In this research, originality starts with the tools, techniques and procedures used. The tools refer to the creation of instruments to do the study, such as a questionnaire. Techniques include observational processes, while the research procedure includes obtaining collections of selective Customer Satisfaction Survey within Malaysian university libraries and researching during the private personal time and also during time formally working as a librarian.

Originality also involves the exploration of the unexplored and the unanticipated. Previous studies on the library user satisfaction at Malaysian university libraries have been undertaken. The examples include a 2008 to 2011 Final report of Customer Satisfaction Survey. Results of all the previously-mentioned surveys were not internally published and a follow-up to the surveys need to be undertaken. There have been little studies at Malaysian university libraries that are specifically targeted at KM practices which emphasizes on knowledge process such as knowledge creation, acquisition, capturing, sharing, records and preserving in the library and that makes this particular study original.
However, Wen (2005) stressed that most KM research in libraries have been carried by or about corporate libraries. There have been a number of studies that look at the importance of integrating KM practices into KM processes, but little to none at Malaysian university libraries. The originality of this research is therefore to understand how KM processes could be a major process (i.e. Creation, acquisition, capture, sharing, record and preserving) toward library user satisfaction.

Using the results from other relevant studies that have been conducted elsewhere helps the researcher gauge where the Malaysian university libraries stand. Therefore, these studies provide insight into concerns about the possible use of KM processes by the library at Malaysian university libraries.

1.8 Definitions Used in the Research

It is important to define the meanings of concepts when doing research because the concepts form the basis for describing and explaining phenomena and processes in a field of study. Within the field of information science, many concepts must be understood in terms of research context, as a variety of meanings can be attached to most concepts (Ikoja-Odongo & Mostert, 2006).

1.8.1 Knowledge Management Practices (KMP):

Yaacob et al. (2011) have defined Knowledge Management Practices (KMP) as a so-called community of knowledge, or the community of practice. It is a group of people who share information, insight, experience, and technology in an area of common interest. A community of practice may operate at a workgroup, departmental, or corporate level and allow contributors and users of knowledge to set their own ground rules for their exchanges.
1.8.2 **Library Users’ Satisfaction (LUS):**

Satisfaction is defined as a state felt by a person who has experience performance or an outcome that fulfills his or her expectation. Satisfaction is a function of relative level of expectations and perceives performance. It is also related to a state of mind and attitude (Brown & Yoshioka, 2003; Gremler & McCollough, 2002; Malthouse, Oakley, Calder, & Iacobucci, 2004; Roszkowski, Baky, & Jones, 2005).

1.8.3 **Structural Equation Modeling (SEM):**

Anderson and Gerbing (1988) stated that these confirmatory methods (e.g. Bentler, 1983; Browne, 1984; Joreskog, 1978) provide researchers with a comprehensive means for assessing and modifying theoretical models. As such, they offer great potential for furthering theory development. It is because of their relative sophistication, however, a number of problems and pitfalls in their application can hinder this potential from being realized.

1.8.4 **Library and Information Sciences (LIS):**

The state-of-art Library and Information Science (LIS) is defined as a field of study that relates to how libraries and information are organized (Floridi, 2002; Janssens, Leta, Glänzel, & De Moor, 2006; Powell, Baker, & Mika, 2002). The field consists of several branches, including public services, technical services, and administration. It is referred to as "library and information science" at many colleges and universities as librarians work with physical books as well as virtual information (Erica Roth, eHow Contributor, 2012).
1.8.5 Knowledge Creation (KCr):

Knowledge Creation is a continuous process in which individuals and groups within a firm and between firms share tacit and explicit knowledge (Parent, Galleu, Salisbury, & Handelman, 2000; Somerville & Collins, 2008; Townley, 2001). In the library, knowledge creation is related to the conduciveness of a workspace. The best knowledge creators are academics and therefore knowledge creation is best performed by universities. As a learning and knowledge organization, universities should empower their libraries to develop campus-wide knowledge management systems. It is now time for libraries to reposition themselves in the central stage of and as a leading player in knowledge management (Choi & Lee, 2002; Lee, 2005; MacWhinnie, 2003).

1.8.6 Knowledge Acquisition (KAc):

Knowledge acquisition is the starting point of knowledge management in libraries. The application of information technologies increases the scope of knowledge acquisition, raises knowledge acquisition speed, and reduces knowledge acquisition cost. It is impossible to accomplish such important tasks through strictly human means in modern society, as knowledge changes with each passing day. It is possible to link closely knowledge sources and knowledge workers by computer networks, thus constructing knowledge networks in libraries based on the realization of single-point information (Gorniak-Kocikowska, 2001; Maponya, 2004; Shanhong, 2002).

1.8.7 Knowledge Capture (KCa):

Knowledge capture requires capturing the tacit knowledge of the organization gained and built through years of experience. This knowledge has to be captured by proper documentation through mentoring, training and surveys. Therefore, apart from explicit knowledge, libraries should also develop means to capture all that tacit knowledge that
is of importance to their users, their organizations, and to the internal operation of libraries (Saufi et al., 2012; Tandale et al., 2011; Tripathy et al., 2007).

1.8.8 Knowledge Sharing (KSh):

In the context of academic libraries, it should be noted that a great deal of knowledge sharing is entirely uncoordinated and that any sharing of information and knowledge has been on an informal basis and usually based on conversation. Although knowledge has always been shared to some extent in organizations, this has been very much on an ad hoc basis. Until recently, it was certainly not overtly managed or promoted as the key to organizational success. More emphasis has been placed on formalizing knowledge sharing (Haas & Hansen, 2007; Jantz, 2001; Maponya, 2004; Parirokh, Daneshgar, & Fattahi, 2008; Pengshan & Yongqin, 2011; Webb, Schaller, & Hunley, 2008).

1.8.9 Knowledge Record (KRe):

Knowledge records are not just informational records; they exist in the format that best allows them to be readily grasped and understood as connected wholes. Knowledge records are also available in formats that have gone through critical evaluation and selection processes. In fact, it is also in formats that libraries actually have a good chance of preserving for centuries without exorbitant costs in terms of access. However, the persistence of copyright law alone precludes the possibility of “everything” becoming digitized, and the cavalier assumption that only electronic formats need to be regarded as important also represents a de facto abandonment of research libraries’ professional responsibility to preserve knowledge records in stable formats (Borglund & Oberg, 2008; Richter et al., 2004; Mann, 2001).
1.8.10 Knowledge Preservation (KPr):

Knowledge preservation is a critical precursor to knowledge transfer during acquisition integration (Ranft, 2006). The reasons for this are familiar tools and best practices for preservation which are developmental. In fact, the resources available to addressing the issue are limited and digital content itself continues to evolve. Instead, the most effective way forward lay in harnessing the collective interests, talents, and resources of individual institutions (LeFurgy, 2005).
1.9 Organization of the Thesis

The thesis consists of five chapters depicted in Figure 1.1.

![Diagram of the Thesis Structure]

**Figure 1.1: The Structure of the Thesis**
The main purpose of **Chapter 1** is to introduce the subject matter and the background to the problems, research questions, research objectives, and the scope and significance of the research.

**Chapter 2** is the literature review. This chapter focuses on the worldwide scenario of KM practices in terms of KM processes, theoretical and the existing framework. Overall, it endeavors to identify the research gap and needs. Thus, it concludes with the formulation of the first three research questions.

**Chapter 3** presents the philosophical framework, research design, and methodology used in this research. It mainly contains details of participating focus groups or Lead Users, selection of subjects, research instruments, research procedures and choice of data analyses.

**Chapter 4** presents the descriptive, statistical and the Structural Equation Modeling (SEM) results. Prior to data analyses, factor analyses and reliability analyses are performed.

**Chapter 5** summarizes and discusses the results in relation with previous studies and the implications of the research with future recommendations.
1.10 Chapter Summary

The research problem has been introduced in this chapter with a background of the problem statement. Subsequently, the chapter looks further into it with the use of research questions and objectives. To clearly demonstrate that there are gaps in research, ideas are linked progressively. While justifying the need for this research, it was possible to also examine the originality of the study. The main concern of the chapter is to present the concepts of KM practice, knowledge process, knowledge, knowledge environment, and library users’ satisfaction as well as make the case for KM in the university libraries clearer, and to demonstrate the extent to which librarians can be viewed as KM practitioners. Questions have been raised and the literature review also shows a general acknowledgement that KM processes are important for improving efficiency. There have been studies that focus on KM practices at Malaysian university libraries. The following chapter presents the literature review as well as a set of theories related to knowledge processes in KM practices towards library users’ satisfaction taking place in the information world.
CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

Chapter one introduced the research problem dealing with a university or academic library which is needed to improve the quality of its collection against all odds, and suggests KM practices that are worth looking into. This chapter contains a review of the previous and current literature on KM practices in general and in university libraries in particular towards their Library Users’ Satisfaction. It sought to give a deeper understanding of KM practices and the different schools of thought, as well as the effect of proposed different organizational management styles on it. This is in the context of studying ways whether KM can or cannot be applied by librarians in Malaysian university libraries in a changing information environment.

2.1 An Introduction of Knowledge Management

KM has been promoted as a valuable business concept for almost two decades. Although originally emerging in the world of business, the practice of knowledge management has now spread to non-profit and public sector organizations, including libraries. A goal of KM is to effectively apply an organization’s knowledge to develop new knowledge to achieve and maintain competitive advantage (Alavi & Leidner, 2001). KM is a combination of people, process and technology (Nonaka & Takeuchi, 1991, 1995; Nonaka, Toyama, & Konno, 2000). This involves people from a wide variety of
disciplines including Information Technology (IT), Psychology, LIS and Human Resource Management (HRM). The multidisciplinary nature of KM has resulted in various interpretations and definitions depending on which discipline they are derived from.

According to Yaacob et al. (2011) value in a knowledge-based economy is based on intangible or knowledge-based assets. In this view, people and their skills and expertise are the most important asset of every organization. In other words, KM is a people-centered concept. People can use their competencies to create value in two ways; either by transferring or converting knowledge externally or internally to the organization which they belong to.

However, Yaacob et al. (2011) most organizations failed to address their strategies and methods for managing and utilization of the knowledge assets. In fact, Kumar (2010) reported that knowledge embedded in the organization's business processes and the employee's skills provides organizations with unique capabilities to deliver customers satisfaction with a product or service. They need to capture employees’ knowledge, so that, their knowledge can be leveraged at the organizational level. This will avoid the risk of loss of knowledge when people leave organizations (Townley, 2001). Gandhi (2004) stressed that in order to understand KM, it is vital to understand the following:

a) The information continuum and the distinction between data, information, knowledge, and wisdom;
b) The role of KM’s four essential components, which are knowledge, management, technology, and corporate culture;
c) The difference between data management, information management, and KM; and
d) The KM processes.
2.1.1 Explications: Data, Information and Knowledge

In order to understand KM, it is important to ask “What is Knowledge?” Authors have attempted to define knowledge by distinguishing between knowledge, information, and data since the classical Greek era, which has led to many epistemological debates. The nature of and the relationships among data, information, and knowledge is the cornerstone for understanding KM theory in organizations (Alavi & Leidner, 2001). The necessity of differentiating data from information and knowledge (or the machine view from the collective and individual views) originates in the vast databases that today form a second reality layer on top of reality as people in an organization would usually experience it (Nake, 2002).

It has been common practice to take a hierarchical view of the relationship between data, information and knowledge (Zins, 2007). According to this view, data is regarded as the raw material of information and information as the raw material of knowledge. Therefore, this hierarchical relationship is routinely modeled like a pyramid, with data as the base, information in the middle, and knowledge at the apex.
2.1.2 Data

The basic building block of knowledge consists of data, while the processing of data results in information; as a consequence of processing, information knowledge is derived (Al-Azmi & Zairi, 2005; Alavi & Leidner, 1999). Another interpretation is that data is a symbol set that is raw materials, quantified and/or qualified (Gandhi, 2004; Zins, 2007). Typical examples of data include statistics, list of items and names and addresses (Gandhi, 2004). Similarly, lists of all the materials that a library has in its collection, as well as lists of the names and addresses of library staff or patrons, are also data. Each library collects a tremendous amount of data every day about the items which
patrons check-out. During a typical check-out transaction, a library system may collect the data elements such as name, address, and phone number of the patron, number of library materials checked out, the format of materials checked out (i.e. Books, videos), titles of materials checked out, and fines (if any) on the account (Gandhi, 2004). To be precise, data refers to data in a book, and books are sources of information and knowledge (Aamodt & Nygård, 1995).

2.1.3 Information

According to Bouthillier and Shearer (2002) and Alavi and Leidner (1999), there is no universally accepted understanding of the meaning of information. However, when data is organized in a logical, cohesive format for a specific purpose, it becomes information (Gandhi, 2004). Examples of information in the library environment might include a list of all the materials that are added to the OPAC, or a bibliography of all the materials used to answer a specific reference question.

A list of patrons who checked out more than five books in a certain time period or a list of the most frequently checked out books would also be information. Furthermore, by comparing check-out transaction lists at a particular library, it is possible to obtain information about how many items in various formats are checked out during a specified time frame.

Spiegler (2003) cited Bourdreau and Couillard as describing information as the result of analyzing and interpreting data phrases or images that carry meaning. Such assignment of meaning to information is an example of borrowing and enhancing terms found in many areas, particularly in libraries. Not many would question the fact that information can be made tangible and represented as objects outside of the human mind (Stenmark, 2001). However, knowledge embedded in the mind is thus a main prerequisite (Stenmark, 2001). Furthermore, by taking an interest in the user’s perspective, it is acknowledged that although a document may be seen to carry its own information representation, the user wraps this in one sense objective content in an interpretative envelope, thereby giving the information a subjective meaning.
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