

KNOWLEDGE MANAGEMENT IN MALAYSIAN BANKS: A NEW PARADIGM

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ABSTRACT:

The globalization of financial markets forced bankers to be knowledge-based and be more efficient in managing knowledge in their banking operations. The importance of this function is accentuated further by the call from the Central Bank of Malaysia (Bank Negara Malaysia) to integrate the concepts of knowledge management in banking operations. In this paper, we discuss a research model called: Banking Knowledge Management Model (BKMM), which encompasses knowledge creation, knowledge retention and knowledge sharing and more importantly, how each of these elements can be integrated in enhancing the quality of banking operations. The various components of BKMM are described in detail so as to explain the progress of knowledge management in banking operations. Then, using the BKMM as a reference, two case studies, one of Tiger Bank and the other of the Camel Bank, were analyzed to study the progress of knowledge management application. The contribution of the BKMM is expected to create a culture that promotes and encourages knowledge management to flourish in the banking sector.

Keywords: Knowledge Management, Knowledge Progress, Knowledge Creation, Knowledge Retention, Knowledge Sharing, Malaysian Banks

1. Introduction

In a highly demanding business world today, an organization's competitive edge almost wholly depends on how well it can manage and deploy its corporate assets. These assets can be categorized into tangible and intangible assets. Traditionally, tangible assets like plant, equipment, inventory and financial capital are considered the most fundamental corporate assets. Intangible assets play a very little or vague role in any organization regardless from which industry it comes from (Vorbeck, Heisig, Martin & Schutt, 2001). Generally, many organizations until today still downplay the importance of their intangible assets. However, despite managing and giving prime focus to all their tangible assets, organizations are still finding it very hard to gain the advantage to beat their competitors. Eventually, organizations have found out that tangible assets can only help them to a certain extent. It is now becoming clearer that organizations require a much broader range of resources to be able to compete and succeed in the current competitive market. This is shown by an increasing number of organizations giving more emphasis to their intangible assets, which was mostly left idle, unexplored and unmanaged (Vorbeck *et al.*, 2001).

To compete and become successful in their own market, organizations must now learn to manage their intangible asset, that is "*Knowledge*" and this practice is generally known as Knowledge Management or sometimes is referred to as business intelligence. Knowledge management is the concept in which an enterprise consciously and comprehensively gathers,

organizes, shares, and analyzes its knowledge in terms of resources, documents, and people skills (Lyons, 2000). The emergence of this “*knowledge era*” is radically changing what creates value in organizations (Carlisle, 2002), whereby the long-term viability and prosperity of an organization increasingly depends on its ability to leverage the hidden value of its intangible assets.

Therefore, knowledge management is now becoming an undeniably important component in an organization’s intangible asset. The continuous change in market expectations and the demands for new products have been gradually replacing the capital and labor-intensive firms by knowledge intensive firms, and routine work by knowledge worker.

2. Knowledge Management In The Banking Sector

For the past 20 over years, banks have been actively automating their manual processes. This has resulted in the creation of many information systems even within one bank. While these information systems were able to help banks to better manage their processes and resources, they also have created a number of setbacks. One major setback of past information system is that it has resulted in the creation of huge volumes of data and information, resulting in a phenomenon like information explosion or information overload. This phenomenon occurs when we are faced with over whelming amount of information, and we have to take time to go through the bulk of information and select the best one to use. When there is the loads of information it could result in less reactive responses and decline of capacity. With huge amount of information being created consistently, inefficiency occurs. Consequently, efficient and effective recovery of resource and knowledge has increasingly becoming an imminent research issue in recent times.

Without proper management information systems, plans, procedures and tools, information has become a very serious and annoying problem in many banks to the extent that most of the time information is regarded as noise. Nonetheless, realizing the important roles they play in the economy, banks are trying to make it a priority to capture and manage their data and turn it into organizational knowledge or business intelligence. However, the lack of process definition, classification, a comprehensive knowledge management model, and suitable knowledge based business model make the efforts futile in the last decade.

This scenario, however, has changed. More efforts and resources are employed to make it successful since in today’s modern banking, information and knowledge are treasured assets. The Governor of Bank Negara Malaysia paraphrased this importance during the official launch of the “Towards a Knowledge-Based Organisation” programme in October 2000:

“If we are to be a central bank, with farsightedness and an ability to face new challenges, we need to be equipped with the expertise and the means to implement appropriate policies, and have confidence in our actions. An important component of this future is that the Bank must fully embrace and employ the principles of knowledge management. Whilst the principal objectives of the central bank remain unchanged, the new knowledge management strategies refocus the Bank’s policies and practices in managing knowledge as a key corporate asset, and in leveraging and exploiting knowledge to better achieve these objectives”.

The application of knowledge management in the banking industry does not really differ from other industries but the increasing complexity of bank’s environment makes its implementation more difficult. Banks have realized the crucial role of knowledge management

in gaining an edge in this competitive field, but there have been laggards in the adoption of knowledge management usually due to wait and see attitude of what will be the true benefits and pitfalls from early adopters. According to an International Data Corporation's (IDC) survey conducted across more than 600 banks in Western Europe, only 20% of banks are currently apply a knowledge management principles (Blesio & Molignani, 2000). This trend is actually more prevalent among large banks. With greater awareness of the importance of knowledge management, IDC expects this situation to change in the near future, and knowledge management will become a priority for the banking sector.

Then, what is new in knowledge management in banking sector? Apart from large volumes of knowledge, the use of information technology (IT) in managing knowledge has given knowledge management a new dimension. The knowledge management progress (KMPs) by Central Bank of Malaysia focuses more on IT tools in managing knowledge. The KMPs is as shown in Figure 1. It is important that the use of technology and the "social process of technology use" are harmonized (DeSanctis & Poole, 1994). With appropriate strategies, IT could help to carry out and maximize the benefits of many of the management initiatives, including knowledge management.

Global knowledge source acquisition. <i>Internet Access, Commercial Database</i>		Knowledge management in organisation. Direct, Real time, Continuous learning	
Knowledge Sharing in Banks. <i>"EDMS", Data collection and Knowledge Godown</i>		Give value to individual knowledge. Corporate Register	
Integrated communication network. <i>E-mail</i>	Multi-function working group. <i>Virtual discussion room</i>	Inter-departmental knowledge sharing. <i>Intranet internal page</i>	
<u>The Process of Knowledge Management Progress</u>			

Figure 1: Knowledge Management Progress [KMPs] (Bank Negara Malaysia, 2000)

Therefore, based on KMPs above, it can be fairly said that knowledge management is not a technology. In contrast, technology is fundamental to the knowledge management progress. Knowledge management is defined as "a process that drives innovation by capitalizing on organizational intellect and experience" (Duffy, 1999). Knowledge management is intended to promote and support the creation of new knowledge, thus contributing to innovation, an essential ingredient in banking success.

The purpose of this research is to highlight the extent of knowledge management integration in the banking sector. The objectives of this research is to introduce a new research model called Banking Knowledge Management Model (BKMM). This model is based on the concept of knowledge management postulated by Wiig and Prusak. Secondly, we proceed to test to what extent this model has been applied by two Malaysian commercial banks, Tiger Bank and

Camel Bank. Specifically, a case study was conducted on two banks to illustrate the integration of knowledge management in each component of the model (BKMM).

This paper is organized as follows. We divide the chapter into three sections. In the first section, we discuss the concepts of knowledge management in banking sector. Second, we present BKMM, the new knowledge management research model which contain explanation of the key components comprising the environmental factors, the people and technology factors, the knowledge creation, knowledge retention and knowledge sharing. Finally we map two case studies, one of the Tiger Bank's and the other of Camel Bank to the research model and propose our findings.

We believe that this study will assist Malaysian banks in developing capabilities to utilize and create new business opportunities at the same time creating sustained competitive advantage through the use of term "*knowledge management*".

3. Knowledge And Knowledge Management Definition

Knowledge is the main element that inspired the knowledge management initiatives in any sector. The knowledge-based era forced the banking institutions, to put knowledge as one of the main competitive advantages. The issues discussed in corporation are somehow relevant to banking institutions although "*it gets tougher in financial landscape because it is such a knowledge-oriented environment*" (Davenport, 1998; ISIS, 2002).

By mentioning knowledge management, the interpretation of knowledge itself must be clarified. Allee (1997) explains in detail the knowledge archetype that relates data, information, knowledge, meaning, philosophy, wisdom and union. Basically, the archetype defines data as if there are so many whitecaps in a larger sea of information. It is consider as information when data are linked to another. As conjunction to that matter, information becomes knowledge when it is analyzed, linked to other information and compared to what is already known.

There are researchers who define knowledge in the context of know-why, know-what, know-how, know-who, know-where and know-when, in order to relate it with managing knowledge concepts. For instance, Van den Bosch and Van Wijk (2001) present a conceptual framework of managerial knowledge integration. Know-what can be defined as something people carry around in their head and pass between each other but in contrast, know-how embraces the ability to put know-what into practice (Brown & Duguid, 2002). On the other hand, Japanese researchers like Nonaka, Toyomo and Konno (2002) defines knowledge by emphasizing on the relative, dynamic and humanistic dimension rather than traditional Western epistemology (the theory of knowledge) that focus on absolute, static and non-human view of knowledge. They agree that :

"knowledge is created in the spiral that goes through two seemingly antithetical concept such as order and chaos, micro and macro, part and whole, mind and body, tacit and explicit, self and other, deduction and induction and creativity and control" (Nonaka *et. al*, 2002).

Basically, knowledge can be differentiated into two types, which are explicit knowledge and tacit knowledge (Nonaka *et. al*, 2002). The comparisons of this knowledge are shown in Table 1.

<i>Author(s)</i>	<i>Explicit</i>	<i>Tacit</i>
Nonaka <i>et al.</i> (2002)	<ul style="list-style-type: none"> *Can be expressed in formed and specific language and shared in the form of data, scientific formula, specification, and such like. *Can be processed, transmitted and stored relatively easily. 	<ul style="list-style-type: none"> *Highly personal and hard to formalize. *It is deeply rooted in action, procedures, routines, commitment, ideas, values and emotions.
Van den Bosch & Van Wijk (2001)	<ul style="list-style-type: none"> *As it is articulated, codified and teachable, it is easier to transfer internally. *Much explicit knowledge is built on a foundation of tacitly shared knowledge. 	<ul style="list-style-type: none"> *Difficult to articulate, codified and teach, since it is emanates from context-specific personal experience and learning-by-doing. *Often takes the form of rules and routines.
Lyons (2000)	<ul style="list-style-type: none"> *Knowledge that has in some way been documented or codified. *It is easily classified, categorized, combined, and distributed to others. *It is typically stored in a knowledge base or document management system. 	<ul style="list-style-type: none"> *Knowledge held by human being. It is based upon personal experience that is accumulated over an extended period of time. *It is influenced by intangible factors. *Takes the form of rules of thumb, intuition, tips and techniques, internalized skills, best practices, gut instinct and even knowledge of who to contact for information which is not in one's own expertise.
Vorbek <i>et al.</i> (2001)	<ul style="list-style-type: none"> *Documented and ideally structured knowledge that is fairly easily accessible and that is available in different media. 	<ul style="list-style-type: none"> *Exists in the head of the company's professionals. *Includes experiences, ideas, rules of thumb, tips and tricks that have not yet received attention from previous management models they deserve.

Table 1: Explicit Knowledge Vs Tacit Knowledge (Nonaka *et al.*, 2002; Van den Bosch & Van Wijk, 2001; Lyons, 2000; Vorbek *et al.*, 2001)

Knowledge management can be viewed from different perspective which then produced different interpretation. As knowledge management practices are widely implemented in

business, firms and corporate fields, the discussion of the definition is mainly inspired from those fields.

Quintas (2002) discusses three different priorities that bring to different responses by firms in their knowledge management initiatives. Most of firms in the West give priorities to capturing employees' knowledge, exploitation of existing knowledge resources or assets, and improved access to expertise. Others mainly focus on "*capturing and re-using past experience, after-action reviews to capture learning, and building and mining knowledge stores*" (Quintas, 2002). The third priority, which is focused on generic knowledge management initiatives that promote better communication, learning and knowledge sharing. In addition, the organizations recognize the importance of knowledge creation and seek to create a culture that supports knowledge creation. Quintas (2002) quotes the definition of knowledge management from Xerox as follows :

"Knowledge management is the discipline of creating a thriving work and learning environment that fosters the continuous creation, aggregation, use and re-use of both organizational and personal knowledge in the pursuit of new business value" (Quintas, 2002).

The following definition is related to the exploitation of experts' knowledge and the importance of knowledge sharing among employees :

"Knowledge management is about more than the management of hardware and software and solving problems of user friendliness. It is also concerned with making the best possible use of the creativity and expertise of people and the effective management of dynamic social processes which generate and exploit a wide range of differing types of knowledge" (Carlisle, 2002).

4. Benefits Of Knowledge Management

Knowledge management has been implemented and practiced in both public and private sectors and many benefits have been claimed in the literature. For example, Foundation Knowledge lists 44 generic benefits of knowledge management on its website (Cong & Pandya, 2003). However, only key benefits of knowledge management are addressed in this paper.

In an organizational setting, benefits can occur at two levels; individual and organizational (Cong & Pandya, 2003). At the individual level, knowledge management provides employees opportunities to enhance skills and experience by working together and sharing other people's knowledge and learn from one another, thereby improving personal performance, which leads to better career advancement.

At the organizational level, knowledge management provides two major benefits for an organization:

- ◆ Improving the organization's performance through increased efficiency, productivity, quality and innovation. Organizations that manage knowledge claim higher rates of productivity. By having greater access to their employees' knowledge, organizations make better decisions, streamline processes, reduce re-work, increase innovation, have higher data integrity and greater collaboration (CIO Council, 2001).

- ◆ Increasing the financial value of the organization by treating people's knowledge as an asset similar to traditional assets like inventory and capital facilities (U.S Department of Navy, 2001).

5. Application Of Knowledge Management In Banking

There are several examples of knowledge management application successfully implemented in banking sector such as:

- ◆ World Bank is renowned as one of the champions in knowledge management application. She has an extensive knowledge management approach in action. Relevant know-how was identified that could then be captured and entered into the knowledge base so that it was accessible by all staff. Relevant parts of the system are now becoming attainable externally, so that clients, partners, and stakeholders around the world will be able to have access to the know how of the organizations. For example, an Indonesian official needed to know the international experience on private sector involvement in vocational training. Through the help of the Human Development Network, the relevant task team leader was able to give to the official within a short time frame a comprehensive analysis of the international experience.
- ◆ When Swedish Insurance giant Skandia expanded its "points of sale" from 5,000 to 50,000 in less than five years, senior management began looking for a more effective and efficient manner of transferring knowledge and increasing its use throughout its global operations. It has leveraged internal know-how to dramatically reduce start-up time for new ventures to seven months, compared to an industry average of seven years.
- ◆ Bank of Montreal (BMO) is the oldest bank in Canada. It is also a Canadian third largest bank with sales of \$US12.23 billion in 2000 (Dzinkowski, 2001). BMO is a leader in customer centric knowledge based solution. This bank wanted to change the status quo of the traditional knowledge discovery lifecycle and capture the potential benefits of improving the efficiency of turning models into production. As a result, during 2000/2001 the Bank of Montreal participated in a multimillion dollar project that would help make the knowledge discovery process more economical, error-free and faster.
- ◆ Deutsche Bank is the biggest Euro zone bank and the world's second largest bank (Dzinkowski, 2001). Deutsche Bank has embraced the strategy of continuous, concentrated corporate learning and intellectual capital branding through its creation of the Deutsche Bank University (DBU). DBU is in initial stage of development and to a large degree follows the thinking of what are recognised by industry experts as best practices in developing a corporate university as an umbrella organization for learning.

6. Research Model - Banking Knowledge Management Model (BKMM)

Based on the literature review, we have come up with a model to describe the knowledge management progress. The model is as shown in Figure 2. The environment forces such as the importance for an organization to maintain its competitive advantage by managing knowledge well or the requirement of the organization to distribute its knowledge among its geographically dispersed human resources may compel the organization to initiate a

knowledge management programme. Through a combination of people and technology, information and energy are transformed into knowledge progress and structures that produce products and services. There are mainly three components in the knowledge progress. They are knowledge creation, knowledge retention and knowledge sharing. Each of these components is discussed below.

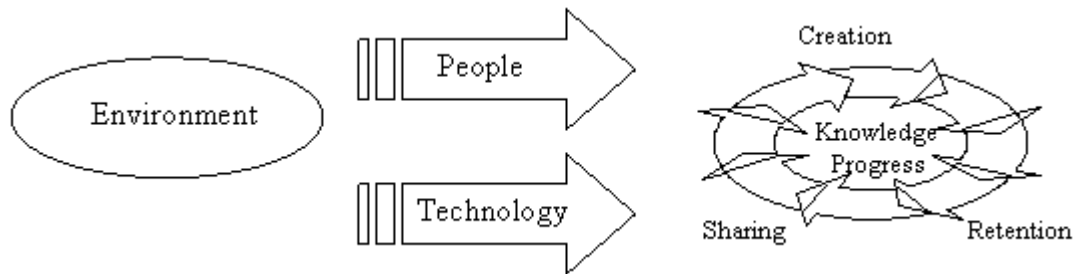


Figure 2: Research Model - Banking Knowledge Management Model

6.1. Environment

In any work environment most jobs are imprecise: best decisions depend on circumstances and available knowledge, which drive the need to rethink current approaches to problem solving and decision-making. Time pressure demands that organizations capitalize on lessons learned. However, this approach has many limitations as the decisions made based on past experience may not be the most appropriate one. Consequently, there is a need for a sophisticated level of “*know-how*”, “*know-what*”, “*know-who*”, “*know-where*” and “*know-why*”. Organizations need to have high performance to respond to market demands such as the right product at the right time, customer focused service and marketing strategies, high performance organizational practices and access to high value of information and knowledge.

A high performance organization pursues its goals in a changing environment by adapting and enhancing its behavior according to what it knows about itself and the world in which it needs to succeed. It is therefore a learning organization that is skilled at creating, acquiring, organizing and sharing knowledge that can gain competitive advantage. Two major components influencing the success of organization in adopting knowledge management are people and technology.

6.2. People

A challenge for knowledge management is managing and training people to embrace a knowledge management oriented culture. According to Duffy (1999), sharing knowledge especially proprietary or individual knowledge could result in power redistribution and face cultural resistance. Many studies emphasized the importance of corporate culture in successful knowledge management (Earl & Scott, 1999; Havens & Knapp, 1999). Some even claim that

knowledge management can be successful only with a change in culture. Furthermore, the new culture must be integrated with existing business processes and practices. Communication, reward systems, and leadership are important cultural factors in implementing knowledge management.

6.3. Technology

Knowledge in today's organizations can be characterized as "*fragmented*" (Duffy, 1999). There are extremely large volumes of knowledge dispersed in organizations with ever-increasing size. Accompanied with mergers, acquisition and alliances, banks are becoming more and more diversified in the type of businesses they operate. Information technology is only effective if used properly in data management. Now the question is whether information technology can do the same for knowledge management to enhance knowledge management initiatives.

To allow knowledge sharing anytime anywhere, several types of technological tools are available. Mobile technology, portable hardware and software, networks, email, teleconferencing and intranets are some of the commonly used technologies for knowledge creation and sharing. Knowledge repositories and data warehouse are some of the technologies used for data retention.

The people and technology are the elements contribute to knowledge progress. Knowledge progress can be divided into three components namely knowledge creation, knowledge retention and knowledge sharing.

6.4. Knowledge Progress

Inkpen (1996) characterizes knowledge management progress as "*a set of organizational actions that established the basis for accessing and exploiting knowledge*". Knowledge related work, categorized by Davenport and Prusak (1998) are accessing, generating, imbedding and transferring. Three major components are involved in knowledge progress: knowledge creation, knowledge retention and knowledge sharing. The essence of knowledge management is to manage those components for organizational effectiveness.

6.4.1. Knowledge Creation

This is the progress in which knowledge is captured and defined. Explicit knowledge can be easily captured and put in the form of a manual, booklet, or document. On the other hand, tacit knowledge is imbedded in social structures, and therefore, it needs to be extracted, codified, and made explicit. Through this codification process, tacit knowledge is transformed into explicit knowledge.

6.4.2. Knowledge Retention

Another important knowledge progress component is the retention of knowledge. The main purpose of retention is to allow reuse of knowledge. Knowledge retained can be readily shared. Protection of knowledge is equally important. Without security measure, the integrity of the knowledge could be at stake. Erroneous knowledge is just as damaging as inaccessible knowledge if not more.

6.4.3. Knowledge Sharing

When we communicate knowledge, it is the process of sharing. Both explicit and tacit knowledge can be shared. However, explicit knowledge can be shared more easily and will have little risk of creating error in the process. Tacit knowledge, which is hard to articulate, is the challenging part of knowledge sharing. In any case, sharing should be as direct as possible with few intermediaries (Buckman, 1998).

7. Case Studies

In this section, we present the experiences of two commercial banks that have succeeded in applying knowledge management. Using the case study approach, we analyze the knowledge management progress of Tiger Bank and Camel Bank.

7.1. Tiger Bank

Tiger Bank is the largest commercial bank in Malaysia. The knowledge management progress adopted by Tiger Bank's were examined and the findings are grouped to fit each of the components in Banking Knowledge Management Model (BKMM) (research model):

Environment: Some of the environmental factors that compelled the bank to go in for knowledge management were: (i) the need to maintain customer knowledge (customer relation management (CRM)) (ii) competitive intelligence, and (iii) service knowledge. The knowledge management progress was found important to maintain the bank's competitive edge as well as its proprietary knowledge.

People: The bank's culture consists of its knowledge enterprising characteristics that promote knowledge sharing. Part of this unique culture puts the world's most knowledgeable experts to stay in touch with all levels of the Tiger Bank, thus encouraging group problem solving and sharing of new ideas and knowledge. The study shows that top management is proactive in changing the work culture within the bank.

Technology: In terms of technology, Tiger Bank has incorporate knowledge management in the form of webpage known as TigerBank2u. TigerBank2u is a webpage of knowledge bases used as a world-wide resource by Tiger Bank customers and employees. It is the network through which the Tiger Bank employees share knowledge electronically and then passes it on to the customers. TigerBank2u represented by an inter-related collection of databases that support rapid exchange of knowledge between employees who are separated by both time and space. Integrating electronic forums, libraries (online) and e-mail, TigerBank2u gives Tiger Bank employees and customers' unlimited access to expertise, services and resources in Malaysia and worldwide.

Knowledge Creation, Retention & Sharing: A feedback loop was set up, so that after listening to customers and queries relating to a particular area those could not be answered by the customer service consultant were posted on the forum. Usually the request for help was picked up by anyone who had expertise in the related field. If the request was unattended for a few hours, the forum specialist would pick up the request, identify the potential experts and try to get their attention in order to answer the questions. The knowledge was then organized, validated, and stored into the repository and was ready for distribution and use/reuse if a similar query was requested in the future.

7.2. Camel Bank

Camel Bank is one of the Malaysian anchor bank after the first phase of merger. The knowledge strategy brings forward a systematic approach to creating and harvesting the knowledge of the bank. The intent is to place its best collective knowledge at the fingertips of everyone in the bank:

Environment: For Camel Bank, it was important to improve human resources and management of human resource. That is, competitive advantage can only be sustained by continuously improving the knowledge and expertise of employees, motivating and empowering employees at different levels to use their knowledge to pursue the main strategic objectives of the bank, re-organizing and restructuring human resources, rearranging specialist division of knowledge and expertise, and maintaining close links with customers.

People: The traditional differences between acquire and acquirer workers and the lack of skills and training, plus the cultural differences between the Camel Bank and member of mergers in terms of accepting ownership and responsibility were major challenges for technical information exchange between the workers.

Technology: Camel Bank developed e-libraries in the form of distributed databases that could be accessed by everyone (24 hours). The libraries were developed and maintained by the employees, giving them an understanding of what the libraries represent, how they should be developed and the benefits that they could bring within the overall drive to improve services. This e-libraries is a facility that not provided by other banks' to their customers. Therefore, this facility is at present unique in comparison to application of KM in others banks.

Knowledge Progress: Camel Bank had full time employees logging the customer problems into the e-libraries and maintaining them, which had an extensive range of customer services and in some cases solutions that were used to overcome the problems. The e-libraries were used as a reference tool and store of knowledge and experience on process fraud that contributed significantly to final services.

8. Discussion

This section discusses the findings on knowledge management that were observed in the two case studies. Overall, we find that the usage of KM by banks is still at the infant stage, although the concept of KM is well accepted in the banks. The main reasons that the two banks undergo knowledge management are to improve the knowledge and expertise of their employees, to motivate and empower employees at different levels to use their knowledge, to reorganize and restructure human resources and to improve the interfaces for knowledge sharing. However, wider application of KM is still very much desired, especially in bank-customer and customer-customer relationships to flourish greater knowledge sharing.

Tiger Bank and Camel Bank are found to be different in practicing knowledge management methods. Tiger Bank is focused on codified method of knowledge management while Camel Bank used the personalized method although they codified their processes into e-libraries and databases for all the personnel to use. In addition, the bank customers have additional advantage to access their banking transaction information in 24 hours fast speed. This provides competitive advantage to the banks and customers. Various technologies were used for

knowledge management in these two banks. Among these technologies, databases and web-pages are the most common types of technologies used. Through these technologies, knowledge, both explicit and tacit, are created and retained in databases. Therefore this knowledge can be shared among the employees and easily accessible. Hence, the two case study of Tiger Bank and Camel Bank highlight that banks which applied KM can enjoy the benefits of having more knowledgeable workers and greater knowledge sharing. This would contribute to greater efficiency and bank performance improvement.

9. Conclusions

In this paper, we highlight the concept of KM and the importance of KM integration in the banking sector as a strategy for banks to maintain their competitive advantage. A research model; Banking Knowledge Management Model (BKMM) based on KM concepts is developed to study to what extent this model has been applied by two Malaysian commercial banks, Tiger Bank and Camel Bank. Based on our findings, we find that the two leading commercial banks have applied the concepts of KM as incorporated in the model. However, the extent of KM integration as evidence in this two case studies are still small. The environmental forces compel the banks to take knowledge management initiatives. We also find that distributing and sharing knowledge among the employees so as to empower them to take timely decisions is one of the main reasons for knowledge management integration in banks. KM practices are integrated in banking sector through people and technology. Although Tiger Bank focus on codified method for knowledge management and Camel Bank adopt personalized method, both banks find they derived many benefits from applying knowledge management practices in their operations.

The contribution of this paper is firstly, by presenting the extent of Tiger Bank and Camel Bank (two large banks in Malaysia) application of knowledge management based on the BKMM; secondly, by creating awareness of the benefits of knowledge management integration; and thirdly, BKMM serves as a guide for bankers to integrate the knowledge management in their banks. The feasibility of the model is demonstrated by the two case studies. Nonetheless, this study incorporates the integration of KM in only two banks. Thus, we suggest that KM practices be investigated in a large number of banks to validate the model. Since our study only covers two banks, we suggest that a more comprehensive research be conducted to optimize the benefits of KM integration in the banking sector. The model serves as a framework for the future research in KM integration in banking sector. The study highlights that KM integration is very importance for organization to maintain their competitive advantage.

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