

# Application of Knowledge Management in Malaysian Banks –A Pre-liminary Study

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## ABSTRACT

Knowledge management system acquires high attention recently in all sectors. In this research, I will focus on the systems implemented in Malaysian banking industry. Different countries (developed, developing and third world countries) have different approaches towards knowledge management in banking industry. And the system's contribution may vary in different areas. It is my intention to study about the difference of knowledge management system between Malaysia and overseas countries in this research.

### Keywords

Knowledge management, knowledge management model, banking industry, Malaysia

## 1.0 INTRODUCTION

Many banks are now moving towards becoming a knowledge-based organization, due to the globalization of the financial markets. They have begun to realize the importance of knowledge and the role it plays in bringing up the value of the banks. In order to compete and become successful in the banking sector, a bank must know how to manage their intangible asset, which is called 'knowledge'. The practice of learning and managing knowledge is generally known as knowledge management. There is a trend where knowledge management is getting more important as it creates and brings value to organizations.

<b>Global knowledge source acquisitions, Internet Access, Commercial</b>		<b>Knowledge management in organization</b> <i>Direct, Real Time, Continuous Learning</i>	
<b>Knowledge Sharing in Banks</b> <i>"EDMS", Data Collection and Knowledge Go Down</i>		<b>Give value to individual knowledge</b> <i>Corporate Register</i>	
<b>Integrated communication network</b> <i>Email</i>	<b>Multi-function working group</b> <i>Virtual Discussion Room</i>	<b>Inter-departmental knowledge sharing</b> <i>Intranet Internal Page</i>	
<b>The Process of Knowledge Management Progress</b>			

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

It is also a common scenario to see information technology playing important roles in managing data and information before they are transformed into knowledge. The Central Bank of Malaysia (Bank Negara Malaysia) is of no exception. The knowledge management progress at this organization focuses more on IT tools in their knowledge management initiative (Wikipedia, Knowledge). Figure 1 show how technology assists in a knowledge management environment.

Knowledge management is not a technology, but technology is the fundamental to the knowledge management (Wikipedia, Knowledge). Knowledge management is a strategy that involves various components, namely people, technology and process. In a banking environment, there is basically four parties representing the people component, which are the investors, bank workers, customers/clients and the managerial levels as shown in table 1 All parties are related significantly in knowledge management system to bring up the value of the banks. Each of this party will benefit from the utilization of KM various tools provided for them. For example, the web portal of a bank is one of the knowledge management tools, and it brings convenience to the customers/clients to perform transactions.

Table 1: Examples of the related parties

Party	Examples
<b>Investors</b>	Shareholders, Unit Trust investors
<b>Bank Workers</b>	Clerical staff, helpline operators, executives, officers
<b>Customer/Clients</b>	Credit card holders, insurance holder, savings/current account holder
<b>Managerial Level</b>	Board of directors, branch manager

A lot of banks are currently satisfied with their current documentation system, management system, file system or any systems that assisting in their daily operations (Wikipedia, Knowledge). With the current technology all

these systems can actually be upgraded into a more efficient system. Nowadays, everything has been computerized; information can be ready with just a few clicks only.

Surprisingly, given the importance of the financial sector to the country economy, relatively there is only little research or implementation of knowledge management being done in the banking industry.

This paper aims to study the current knowledge management models being developed or implemented in overseas or local banks. Although there is no one knowledge management template that fits all the banks requirements, this paper will propose a model that may fit into Malaysian banks.

## 2.0 KNOWLEDGE AND KNOWLEDGE MANAGEMENT DEFINITIONS

*Knowledge* is what **I** know

*Information* is what **we** know (Gwin , 2003).

Data is raw information referring to unstructured facts. It exists in any form such as numbers, words or symbols whether useful or useless. Upon processing the data, it becomes information which has been given meaning and presented in a particular context. When we practice the information and apply them in real life, it is called knowledge.

Knowledge is the appropriate collection of data and information valued added by people and it helps answering 'how' questions. In other words, knowledge is human effort applied to information.



Figure 2: Transition of Data, Information and Knowledge (Ackoff, 1989)

Knowledge is an important key asset for a bank embedded along in their operations and processes. It is essential to ensure knowledge handling in the bank is efficient and effective where best practices are performed in order to support the achievable of the bank's goals or targets.

From an organization point of view, the advantages of knowledge management can occur in 2 levels: individual and organization (Cong & Pandya, 2003). This gives an opportunity to individual to discover, capture, share and apply the knowledge in real environment. At the organization level, it increases the financial value of the organization. Besides, it improves the performance through increased efficiency, productivity, quality and innovation (CIO Council, 2001).

Hence, a bank should choose the best initiatives to manage and handle their bank's knowledge efficiently. Therefore, "Knowledge Management" is a term being used with the meaning of managing knowledge which comprises the practices used to capture, create, presentation and distribution of knowledge for the purposes of reuse, awareness and learning.

## 3.0 STUDYING OF KNOWLEDGE MANAGEMENT IN MALAYSIA

Knowledge management in Malaysia is still in the infant stage compared to other countries. Very few companies have actually initiated the knowledge management program. Sharing is an essential important practice in order to make knowledge management program successful which is a profound implications for practitioners ( Ackoff, 1989). Unfortunately, Malaysians do not seem to practice sharing in their environment. At the same time, employees will always be conscious of the appropriateness of their contributions; superiors on the other hand would be cautious to ensure that their comments do not reveal their lack of familiarity of the subject. The result of a research conducted by Catherine Gwin found that there is possibility of superficial exchange of knowledge which not in line with the whole idea of knowledge-sharing (Gwin , 2003).

Table 2: Categories of Malaysian Banks

Category	Example
<b>Central Bank</b>	Referring to Bank Negara Malaysia (The Central bank of Malaysia)
<b>Universal Bank</b>	CIMB Group (CIMB Bank + CIMB Investment Bank + CIMB Islamic Bank)
<b>Malaysian Bank</b>	Affin Bank Bhd, AmBank Bhd, RHB Bank, Public Bank Bhd.
<b>Foreign Bank</b>	Bangkok Bank, HSBC Bank Malaysia Bhd, UOB Bank (M) Bhd, The Standard Chartered Bank (M) Bhd.
<b>Investment Bank</b>	Affin Investment Bank Bhd, OSK Investment Bank Bhd, CIMB Investment Bank Bhd, RHB

	Investment Bank Bhd, Public Investment Bank Bhd.
<b>Islamic Bank</b>	Hong Leong Islamic Bank Bhd, AmIslamic Bank Bhd, Hong Leong Islamic Bank Bhd.

However, KM in Malaysia is not yet doomed. In the financial sector which contributes a lot to the country's economy, the banking industry has realized the importance of knowledge management, and some banks have even set up a knowledge management team.

According to Wikipedia, a bank is a financial institution that acts as a payment agent for customer to borrow and lend money. In Malaysia, Bank Negara Malaysia is our central bank mainly to ensure the Malaysia financial status including perform as an advisor to the government. Basically, Malaysian banks can be categorized as in the Table 2.

The 1997 financial crisis has had major impact on Malaysian economy and Malaysia's progress in reforming its financial status ever since has been affected. Although it has been 11 years after the crisis, there are quite a number of banks yet to recover. Many restructuring plans have been executed by Malaysian banks to modernize and to compete more effectively with the foreign banking institutions.

According to the research done by WenCang Zhou, in the year of 2006, knowledge management strategy actually would be able to solve the following main problems (Zhou, 2006):-

1. Employees' intelligence and information cannot be shared and information required cannot be achieved. It is rather difficult to capture employees' knowledge which embedded in the daily operations.
2. Having poor organizational memory, the banks cannot learn well from the past. They keep losing the knowledge of an expert due to their resignation or retirement.
3. Legacy computer systems may lack the capability and flexibility to adapt to a rapidly changing business environment.

At the same time, it brings the benefits to the banks(Wikipedia, *Knowledge*):-

1. Foster innovation by encouraging the free flow of ideas. Employees are given chance to express their ideas without any hesitation.
2. Improve customer service and efficiency of risk management by streamlining business process.

3. Enhance employee retention rates by rewarding employees for the value of their knowledge.

Though the field of knowledge management is fairly new to banks in Malaysia, a lot of efforts have been put into it recently (Wettayaprasit et al., 2005). This issue is crucial as it aims to reap benefits from bigger economic scale and the potential for synergy in order to compete effectively and efficiently with other banks.

#### 4.0 POSSIBILITIES IN THIS AREA

There has been a number of knowledge management models proposed over the years. The knowledge management model (KMM) implies those organizations best able to collect, index, store and analyze knowledge have an advantage over their competitors (Loshin, 2001). Some of the models being proposed in the past few years are for overseas banking industry. The following are some of the models.

##### 4.1 KMM Focusing on the Knowledge Progress - Banking Knowledge Management Model (BKMM)

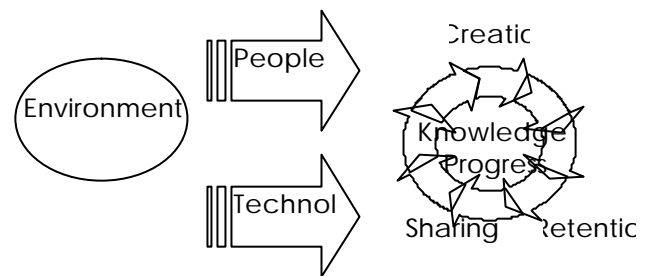


Figure 3: Research Model: BKMM (Wikipedia, *Knowledge*)

The researchers of the model feel that the combination of environment, people and technology can transform information and energy into knowledge progress and structures that produce products and services.

Table 3: BKMM

<b>Environment</b>	Circumstances and available knowledge
<b>People</b>	Communication between the staff, embedded knowledge
<b>Technology</b>	Tools used to capture, store and share the knowledge
<b>Knowledge Progress</b>	Knowledge related work
<b>Knowledge Creation</b>	Capture and define knowledge
<b>Knowledge</b>	Apply and reuse the

<b>Retention</b>	knowledge
<b>Knowledge Sharing</b>	Communicate both the explicit and tacit knowledge

Table 3 shows us the components that comprise the BKMM. They believe that the people and technology are diverse in different environment. It leads to a knowledge progress which comprising knowledge creation, sharing and retention.

#### 4.2 KMM Focusing on the Knowledge & Employee - Revised Model for the Banks of China.

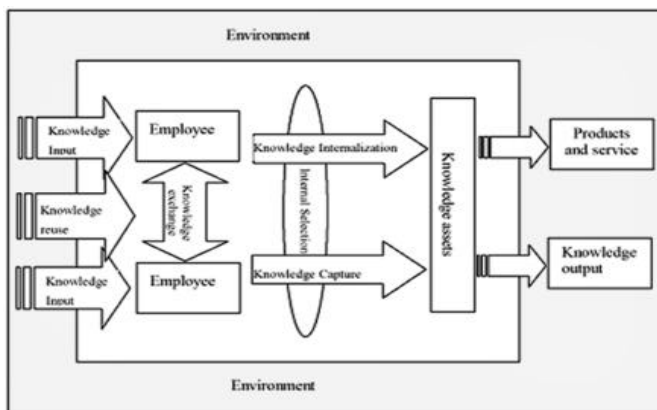


Figure 4: A Revised KM Model for China Banks (Wikipedia, Knowledge)

The knowledge management model of the China Banks is illustrated in 2 dimensions. The first dimension includes knowledge input, knowledge reuse, knowledge exchange, knowledge internalization and knowledge capture. The adoption will reflect new insight and information. Second dimension, which is internal selection consisting of elements that enable or influence knowledge-creation activities.

#### 4.3 KMM Focusing on the Daily Process - The Bank of Tokyo-Mitsubishi, Ltd.

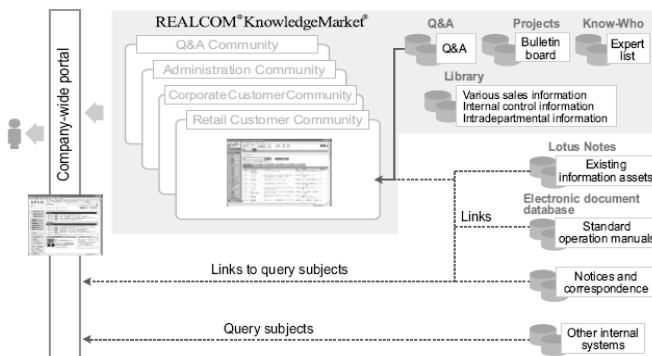


Figure 5: An illustration of BTM's knowledge management system [12]

The Bank of Tokyo-Mitsubishi Ltd. is undertaking a project, OPEN with the main objective of improving the process of knowledge sharing. It is also a work reform effort to speed up the time taken to solve a customer's problem as illustrated in the Figure 5.

Mr. Masayuki Ito, general manager of general planning office of BTM notes, "Many banks do not document the processes that lead up to closing a deal with the customer. That means that know-how such as how to interact with the customer, what information to obtain and what proposals to make to successfully conclude the deal has not been formulated into tangible knowledge. Needless to say, this type of knowledge is most useful to our frontline employees. So, we needed a system that transforms that valuable information into explicit knowledge and shares it across branches and organizations smoothly."

#### 4.4 KMM Focusing on the Process & Customer - Government Saving Bank (GSB), Southern Thailand

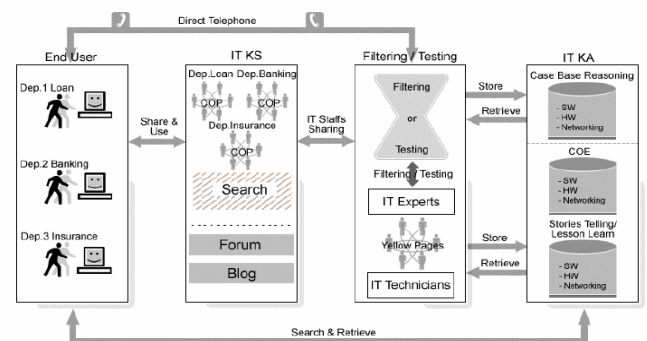


Figure 6: KM Model in GS B (Wettayaprasit et al. ,2005)

KMIT-GSB Model (Knowledge Management Information Technology Government Saving Bank) composes of 4 parts as shown in Figure 6.

1. End User
2. IT Knowledge Sharing
3. Filtering and Verification
4. IT Knowledge Asset

They focus on the management of case base in working on knowledge management. The case base categories are showed as following:-

Table 4: 6 categories of system

Working System	Functions
<b>Banking</b>	System Fail, Error Operate, Fail to End Day Problem, Operate Manual
<b>Loan</b>	System Fail, Error Operate, Operate Manual
<b>Insurance</b>	System Fail, Fail to Log On, Fail to Print Job, Operate Manual
<b>Hardware</b>	CPU, Monitors, Printer,

	Keyboards, Pass Book
<b>Network</b>	Off Line, System Down
<b>Software</b>	Install System, Manual, Data, News

KMIT-GSB helps in gathering data from each computer center follow the type of problems occurred frequently in those works. The users and staffs will be able to understand and find out what she/he needs easily and hence select the best case solution for problem solving.

## 5.0 PROPOSED MODEL

Various KM models for banking industries were studied and each of the models was seen to focus on certain aspects. The BKMM model is focusing more on the transformation of information into knowledge. The knowledge progress in this model has played an important role. As for the second model, The Revised Model for the Banks of China's attention is more on the employees. They believe that the employees possess the valuable knowledge that brings value to the banks.

The Bank of Tokyo Mitsubishi Ltd is currently applying a model which capturing the knowledge in the daily operations. They have a system named OPEN which aims to improve the knowledge sharing environment so that employees may access the necessary information in an efficient way.

Government Saving Banks of the Southern Thailand divides their information system into 4 parts as illustrated in Section 4.4. It targets to provide the best solution to the customers in the shortest time of period. The model allows the employees to select the best case out of the reported hundreds cases with the best solutions.

Due to the fact that KM in Malaysia is still in its early stage, these models may seem too complicated if it is implemented in Malaysia. Our Malaysian banking industry should start off by fully utilize their current available technologies and tools. When the knowledge management system is stabilized, then only they start implementing knowledge management projects.

Therefore, we are proposing a simplified model for the implementation of KM in Malaysian banks as shown in figure below.

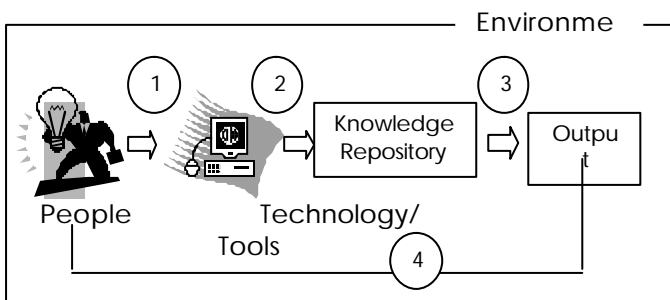


Figure 7: Revised KM Model for Malaysian Banks

Figure 7 shows us the revised version of knowledge management that can fit into Malaysia banking industry. The 'People' in the diagram refers to the bank workers, managerial level, investors and customers/clients (Refer Table 1). Meanwhile, the technology and tools can help to capture, discover and share the knowledge. For example, a web portal of a bank provides information (knowledge sharing) with the customers.

Knowledge repository is a computer system that continuously captures and analyses the knowledge assets of a bank (Knowledge Repositories). It is a collaborative system where users can query and browse information in order to retrieve and preserve organizational knowledge assets and facilitate collaborative working (Knowledge Repositories).

As for the output, it is the outcome of the processed knowledge. In the banking industry, it mainly refers to the products and services from the customer/client's point of view. As for the managerial level and employees, the knowledge repository helps them in decision making.

Table 5: Process of Revised Model

No.	Process
1	<b>Knowledge</b> - Knowledge is expertise and skills acquired by a person through experience and education [15]. The knowledge is embedded in the daily operations performed by the employees.
2	<b>Capture/Discovery/Sharing</b> - Technology and tools are used to discover, capture and share the knowledge. For example, communicating in online forum helps discovering, capturing and even sharing the knowledge.
3	<b>Application</b> - Knowledge repository is a valuable asset of a bank. It brings value and quality to the output. Example of output, products and services of the bank.
4	<b>Reformation</b> - New knowledge or information will be embedded each time a new introduction of product or services. The 'People' is someone who possesses the knowledge, mostly it refers to the employees or staffs.

## 6.0 CONCLUSION

Most of the industrial countries gradually changed from industrialized economies to information or knowledge-based economies, where human beings become the most valuable asset due to the tacit knowledge embedded which is difficult to access (Gwin , 2003). Therefore, we

have knowledge management system which developed to discover, capture, apply and share the knowledge.

The knowledge management is actually rather new in banking industry of Malaysia. All the while, there are a lot of hidden knowledge or inside knowledge that have not been explored. In conclusion, knowledge management is an effective way for Malaysian banks to build up the competence in the market not only to compete with foreign banking institutions but also gaining reputation in the eyes of world.

## REFERENCES

- Ackoff, R. L., "From Data to Wisdom", *Journal of Applied Systems Analysis*, Volume 16, 1989 p 3-9
- A. J. Cañas, J. D. Novak, F. M. González, Eds. 2004, *The Value of Concept Maps for Knowledge Management in The Banking and Insurance Industry: A German Case Study*, Pamplona, Spain.
- Bank Negara Malaysia 2005, *Laporan Tahunan 2005*, Kuala Lumpur: Printelligence Sdn. Bhd.
- Daniel Moonkee Min., Jong Ryul Kim., Won Chul Kim., Daihwan Min., Steve Ku. 1996, "IBRS: Intelligent Bank Reengineering System, "Decision Support System 18, pp. 97-105.
- Foskett, A.C., *The subject approach to information*, Linnet Books, The Shoe String Press, Inc., Hamden, Connecticut, 1982, p. 1
- Gwin , C. 2003, *Sharing Knowledge- Innovations and Remaining Challenges*, The World Bank, Washington, D.C.
- Hafiza Muhamad Ali, Nor Hayati Ahmad September 2006, *Knowledge Managment in Malaysian Banks, A NewParadigm*, *Journal of Knowledge Management Practice*, Vol. 7, No. 3.
- Hafizi Muhamad Ali, Zawiyah M. Yusof 2004, *Knowledge Management in Malaysian Banks: A Study of Causes and Effects*, SAGE Publication, Vol. 20, pp 161-168. *Knowledge Management in Malaysia – Why Slow Adoption?* [online] 2006, available from: <http://www.knowledgeboard.com/item/2643/23/5/3>
- Knowledge Repositories: Organizational Learning and Organizational Memories, available from: [http://www-sers.cs.york.ac.uk/~kimble/teaching/mis/Knowledge\\_Repositories.html](http://www-sers.cs.york.ac.uk/~kimble/teaching/mis/Knowledge_Repositories.html)
- Pete Loshin 22<sup>nd</sup> October 2001, *Knowledge Management* [online], ComputerWorld, available from: <http://www.computerworld.com/databasetopics/data/story/0.10801.64911.00.html> "The Bank of Tokyo-Mitsubishi, Ltd.", Accelerating Customer-Oriented Banking with Knowledge Management [online], available from: [http://www.realcom.co.jp/en/doc/case\\_BTm.pdf](http://www.realcom.co.jp/en/doc/case_BTm.pdf)
- WenCang Zhou 2006, *The International Journal of Knowledge Culture & Change Management, The Knowledge Management in China Banks*, vol. 6, no. 5, pp 91-97.
- Wettayaprasit W., Wongshuay T., Sahatpatan K., Chamtitigul N., Jirasontikul R., Sriraksa R., Benjapolpithak P. 2005, *Knowledge Management for Information Technology Section of Government Saving Bank(GSB) in Southern Thailand*. Wikipedia, *Knowledge* [online], available from: <http://en.wikipedia.org/wiki/Knowledge>