A FRAMEWORK FOR KNOWLEDGE MANAGEMENT SYSTEM IMPLEMENTATION WITHIN THE LIBYAN BANKING INDUSTRY

Ahmed B Kridan and Jack S Goulding
The Research Institute for the Built and Human Environment,
University of Salford, Salford, M5 4WT, UK
a.kridan@pgr.salford.ac.uk, j.s.goulding@salford.ac.uk

ABSTRACT: Most of the studies that form the basis of the existing frameworks have been carried out in organisations in Western industries countries where there can be similarities in some of the assumptions about the components of the framework that this research is carrying out. To add a new perspective the study has been conducted in under developing country (Libya). This study affords opportunity to see the differences in the culture and infrastructure provision at the local levels in comparison with the literature review that most of it comes from western perspectives.

This paper highlights the developments of the framework, a comprehensive review of theory, research, and practices on knowledge management (KM) that contrasts existing critical knowledge managemenet system (KMS) implementation areas have included in this framework. The framework explains how can bridge the gap between what should be exist at the Libyan public banks (LPBs) to be able to implement a successful KMS, and what exist in real life. The knowledge management implementation framework for banking industry (KMIFBI) is meant to fill the gaps to successfully build KM systems within the Libyan banking industry. Three versions of this framework were therefore investigated: The first version was based on a number of theories and assumptions; along with resulted from preliminary, secondary research and group sessions, both are referred to as "first draft framework". The second draft is a modified framework based on the results of pre-field investigation "workshop" and is referred to as the "Pre-field investigations framework". The third is based on the results of the empirical investigations "interviews" and is referred to as the "Post-field investigations framework". The first framework is described in detail in this paper.

Key words: frameworks, Libyan banks, KMS implementation, KMIFBI framework

1. INTRODUCTION

Many organisations are embracing KM but few of them are able to implement it successfully to see the benefits. Implementation of KM is a strategic process and needs careful target setting and review. Providing a framework, to the managerial knowledge portfolio, to enable managers to appreciate how knowledge management KM is organisationally important (current) and how it can be related to everyday managerial activity (actionable) (Bailey & Clarke, 2000). According to Robertson (2002) there are many benefits in applying a knowledge management framework or methodology. Also it is argued that Any KM framework should aim to build a KMS that enhance organisational competitiveness through capitalising the potential value of knowledge (Kim, 1999, Wiig, 1997a).

If organisational knowledge is a strategic asset, then the method used to implement a knowledge management system is critical (Bollinger & Smith, 2001). In this understanding (Rubenstein-Montano et al., 2001a) recommend some derives directly for a KM framework these are:

•	First, Methods should be based on frameworks; for instance Wiig et al. (1997b) in his methodology is explicitly discussed in terms of an overseeing framework: review, conceptualise, reflect and act.

•	Second, a framework provides a set of guiding principles for a discipline, and a methodology can be thought of as a specific, detailed description of how to carry out the ideas and objectives set forth by a framework. Thus, a methodology must be developed within the context of some framework - adopting its ideals and principles; and

•	Third, the method must contain sufficient detail to be implementable. Thus, the framework should be presented and described in detail.

In the following section, this paper is going to introduce the requirements of the framework that would increase the likelihood of the success of the KMS implementation within the Libyan banking industry, and will give the Banks in general and the Libyan Banks in particular the ability to determine the level of organisational readiness for an implementation of KMS. This approach should also provide management with effective guidance that contributes to meeting their business objectives and achieving the specified critical knowledge implementation areas (CKIAs). The requirements should set up the foundation for developing a balanced measurement approach which aims at presenting the current/existing organisational status and the expected status for the successful implementation of KMS. By identifying a suitable framework for a knowledge management initiative, Robertson (2002) argues that it is possible to build credibility and provide an appropriate context for meaningful dialogue with leadership. In his view this framework builds an approach to knowledge management that is specifically tailored to the organization's environment, processes, and goals".

The purpose is to present a knowledge management framework for Libyan Public Banks (LPBs) and discuss how to employ it. This research first derives generic elements for effective KMS implementation areas through literature reviews. Then, considering the elements within the LPBs during the preliminary research, next, this research analyses the case of the LPBs throughout secondary research, finally, this research discusses the lessons and implications for knowledge management initiatives throughout the framework presented in this paper.

In order to produce such a framework, a suitable structure should be established and built upon the activities that have been done so far in this study that identify the key KMS components to achieve implementing successful KM system within the LPBs. Theses areas have to be extracted, combined and/or modified accordingly; its generic characteristics that should be considered essentially in designing KM activities and presents a refined framework of KMS implementation. The structure should embrace the main components of KMS implementation (see figure 1). This structure should lead to the development of a measurement model that is able to measure the organisational state of readiness for a KM implementation system in term of CKIAs.
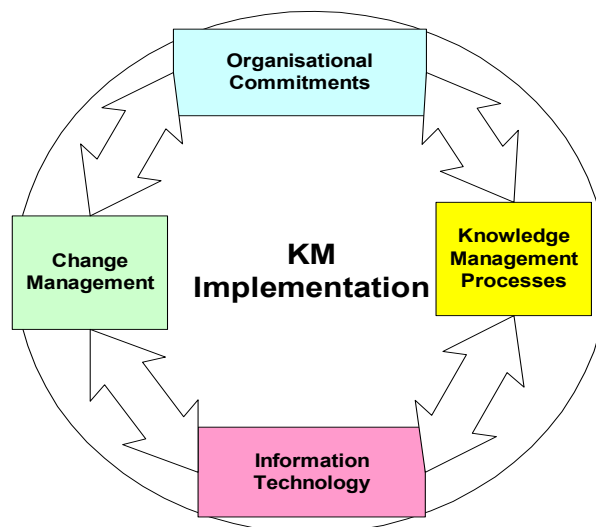
Figure 1: *Domains of Readiness*

The framework for implementing KMS within the KMIFBI will be introduced. Main focus of KMS implementation may be different, depending on the nature and characteristics of the tasks different organisations pursue. Accordingly, core characteristics of Banks must be considered to recognise main points on which KMS implementation should focus. Thus, a sound KMS implementation framework for Libyan Banks helps to fulfil this need by providing important guiding principles and directions. However, developing such a framework can be a challenging task for managers and practitioners as they may lack the knowledge of what characteristics, areas and constructs should be included in it. Implementation frameworks that do not have the necessary areas in place can paint an incomplete picture of KM and its implementation process, thus providing a suboptimal guidance for conducting KMS is an essential task in this study.

This research uses the Libyan Banking Industry case as the basis for developing the framework to organise the relationships between KMS elements and its implementation; to motivate the need for such a framework and to provide some additional context for this work, the following section revises the developments of the KMIFBI framework. The KM framework has been developed to help Libyan banks in understanding the range of KM options, applications and technologies available to them. It provides a view of the totality and complexity of the various KM theories, tools and techniques presented in the literature. Also, it provides a framework within which management can balance its KM focus and establish and communicate its strategic KM direction.

Thus, general KMS phases are given, along with detailed steps of how to carry out KMS expected outputs. The general phases are: initiate, diagnose, establish, act, and learn.

2. A DESCRIPTION OF THE KMIFBI

The objectives of this research work were focused on providing the Banking Industry with a practical methodology which could be used to translate the conceptual ideas of KMS into a working programme with defined objectives, or deliverables, using terminology that the industry could readily understand. The research highlighted the requirement to develop a supporting analysis methodology to examine employee actions and behaviour in regard to

how they can effectively process knowledge and information. This would have the benefit of identifying the main areas on existing KM which could be improved through the application of an appropriate KM strategy as the Knowledge management is still a developing field, and there exist a number of distinctive knowledge management frameworks, each of which is different in focus, scope, components, and approaches from one another.

Therefore, this KM plans should identify the strategic KMS areas that can achieve the knowledge implied goals, as it is believed that knowledge management has to be seen strategically and it is reasonably clear that the Libyan Banks will face difficulties in implementing and communicating the KM initiatives if they not seen it as strategic issues. To do so the case analysis of the Libyan Banks KM which are going to employ this perspective, the critical knowledge implementation areas have been identified and the readiness of the Banks for KMS implementation can be depicted by the use of a model that explains particular requirements in term of four domains, each one classified into four or five CKIAs areas (see figure 2).
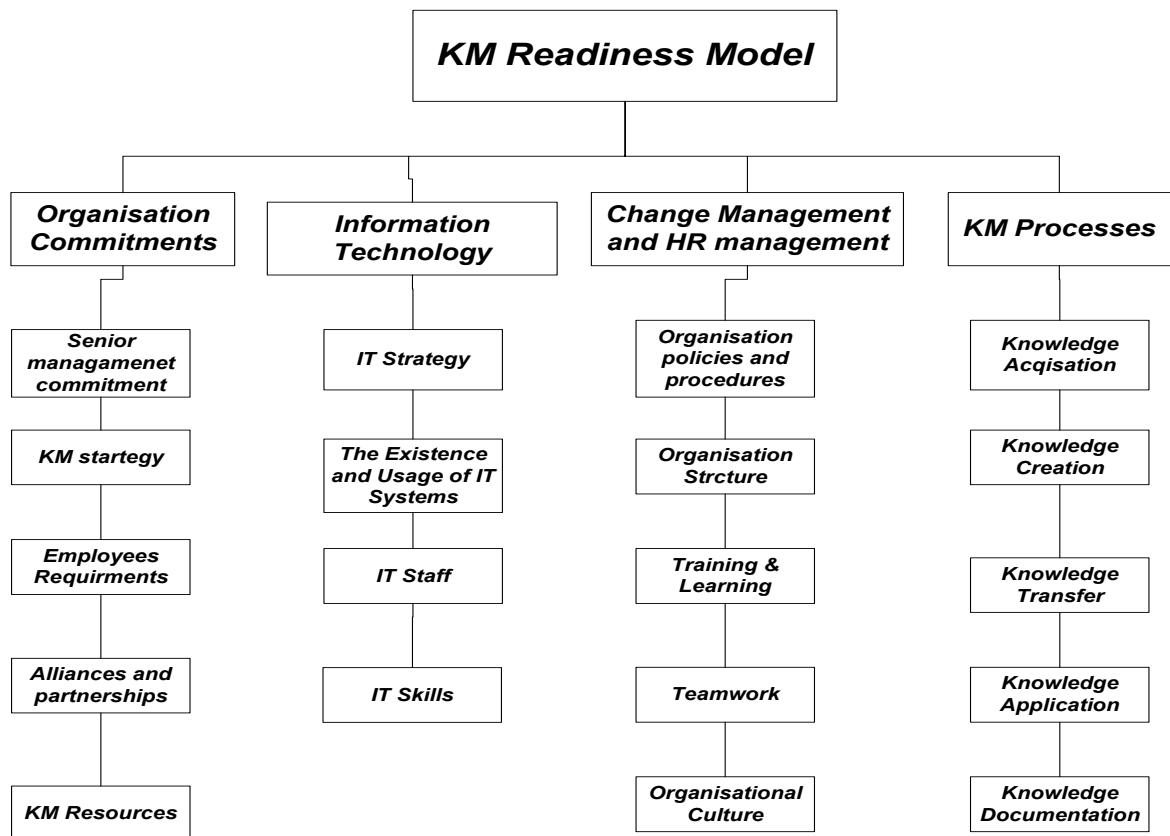
KM Readiness Model

Organisation Commitments	Information Technology	Change Management and HR management	KM Processes
Senior managamenet commitment	IT Strategy	Organisation policies and procedures	Knowledge Acqisation
KM startegy	The Existence and Usage of IT Systems	Organisation Strcture	Knowledge Creation
Employees Requirments	IT Staff	Training & Learning	Knowledge Transfer
Alliances and partnerships	IT Skills	Teamwork	Knowledge Application
KM Resources		Organisational Culture	Knowledge Documentation

Figure 2: Structure of Readiness Model

Applying the four domains of developing KMIFBI of the individual and the organisation, and the four mean of developing knowledge capabilities of the banks to be able successfully implementing KMS; theses four fields are to bridge the gap between the importance and effectiveness, and to determine knowledge implementation gaps from a organisation, people, technology and process as can be seen in figure 3.
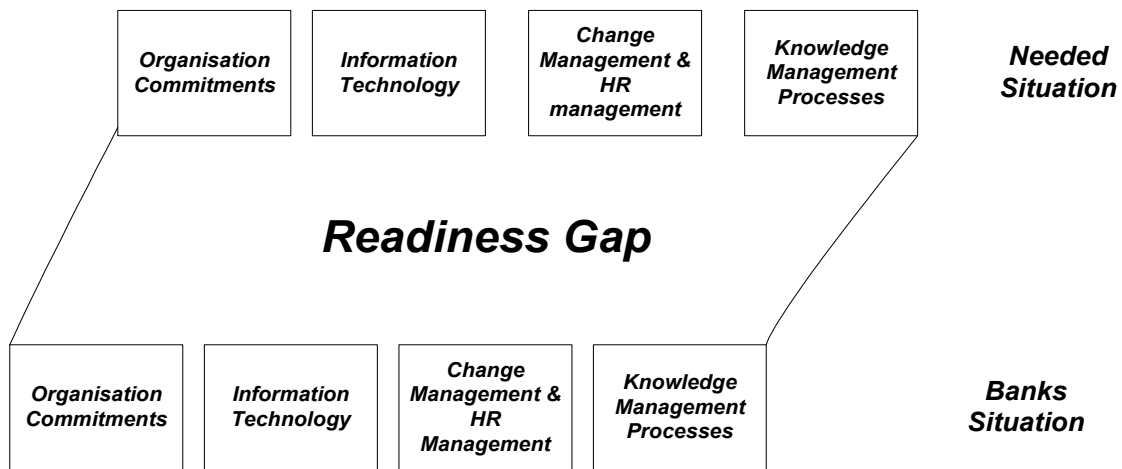
Figure 3: Readiness Gap

The following section describes the domains (OC, CM, IT and KMP) in details using the description of the attributes associated with each of them as they might occur in each of the five maturity levels. Each of the CKIAs describing an attribute comprises an aspect of how the status of the particular attributes should be at different organisational KMS maturity levels. The levels describes by the framework do not intend to make any a judgmental statement of the status of the organisational maturity. Some of the descriptions of the attributes of the early levels might be understood to have a negative notion. This should not be the case. The framework is merely trying to describe, depending on accumulated experiences and pervious research frameworks introduced in the literature which are reviewed in earlier, describe the status of organisation's KMS implementation maturity at each of those levels.

3. THE FIVE STAGES IN KMIFBI

Each of the five fields in the matrix represents a key area for developing knowledge capabilities. While developing each field on its own will also result in greater organisational knowledge capabilities, each one relies substantially on all of these fields; to achieve large and sustainable gains in capabilities all four fields must be addressed and developed on an ongoing basis, as can be seen in the figure 4. It is briefly described some of the specific tools and initiatives which can be used to develop each of fields, as shown in figure 4. The proposed requirements for KMS constitute crucial areas for the design of KMS and provide the building blocks for integrating organisation commitments, change management, information technology and KM processes.
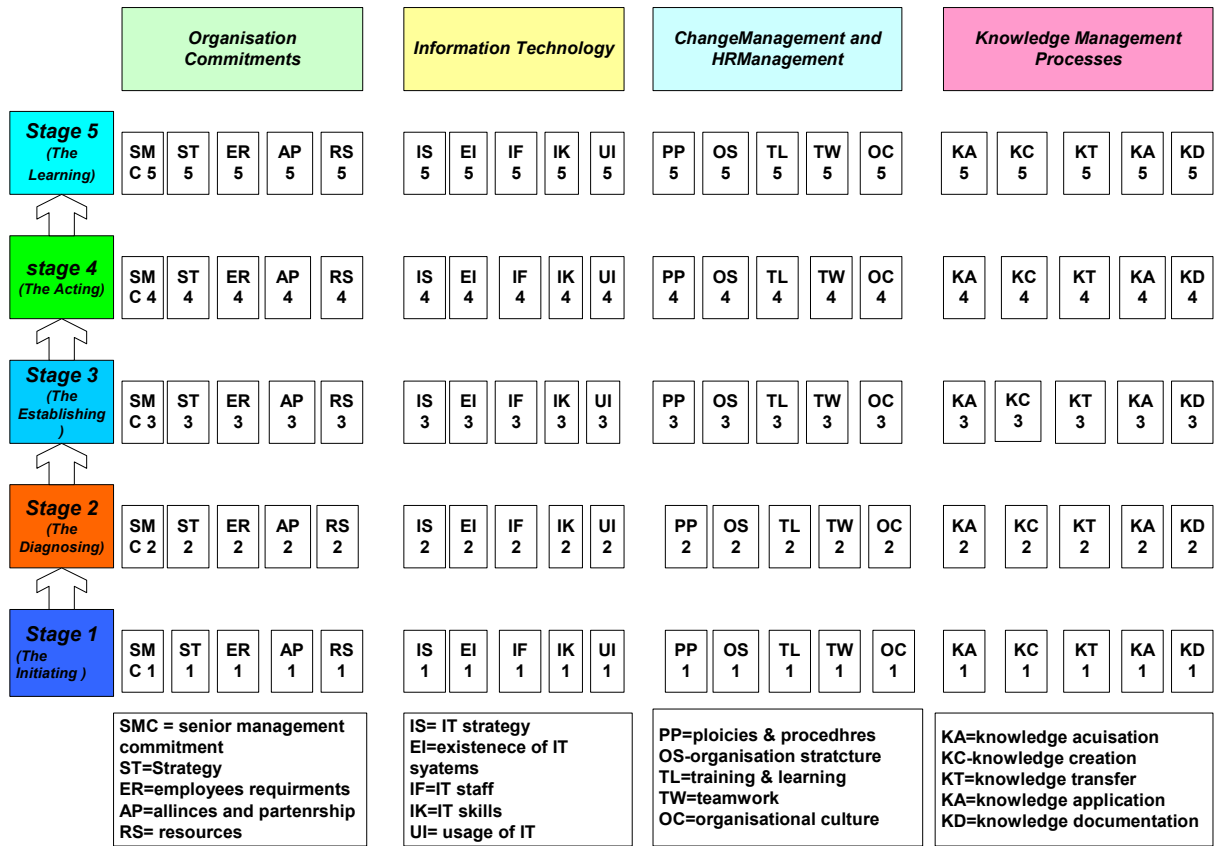
	Organisation Commitments					Information Technology					ChangeManagement and HRManagement					Knowledge Management Processes				
Stage 5 (The Learning)	SMC 5	ST 5	ER 5	AP 5	RS 5	IS 5	EI 5	IF 5	IK 5	UI 5	PP 5	OS 5	TL 5	TW 5	OC 5	KA 5	KC 5	KT 5	KA 5	KD 5
stage 4 (The Acting)	SMC 4	ST 4	ER 4	AP 4	RS 4	IS 4	EI 4	IF 4	IK 4	UI 4	PP 4	OS 4	TL 4	TW 4	OC 4	KA 4	KC 4	KT 4	KA 4	KD 4
Stage 3 (The Establishing)	SMC 3	ST 3	ER 3	AP 3	RS 3	IS 3	EI 3	IF 3	IK 3	UI 3	PP 3	OS 3	TL 3	TW 3	OC 3	KA 3	KC 3	KT 3	KA 3	KD 3
Stage 2 (The Diagnosing)	SMC 2	ST 2	ER 2	AP 2	RS 2	IS 2	EI 2	IF 2	IK 2	UI 2	PP 2	OS 2	TL 2	TW 2	OC 2	KA 2	KC 2	KT 2	KA 2	KD 2
Stage 1 (The Initiating)	SMC 1	ST 1	ER 1	AP 1	RS 1	IS 1	EI 1	IF 1	IK 1	UI 1	PP 1	OS 1	TL 1	TW 1	OC 1	KA 1	KC 1	KT 1	KA 1	KD 1

SMC = senior management commitment
ST=Strategy
ER=employees requirments
AP=allinces and partenrship
RS= resources

IS= IT strategy
EI=existenece of IT syatems
IF=IT staff
IK=IT skills
UI= usage of IT

PP=ploicies & procedhres
OS-organisation stracture
TL=training & learning
TW=teamwork
OC=organisational culture

KA=knowledge acuisation
KC-knowledge creation
KT=knowledge transfer
KA=knowledge application
KD=knowledge documentation

Figure 4: five Stages for Developing KM Capabilities

In doing that, a number of issues arise that need to be addressed in KMS implementation that are explained in details in the five stages below.
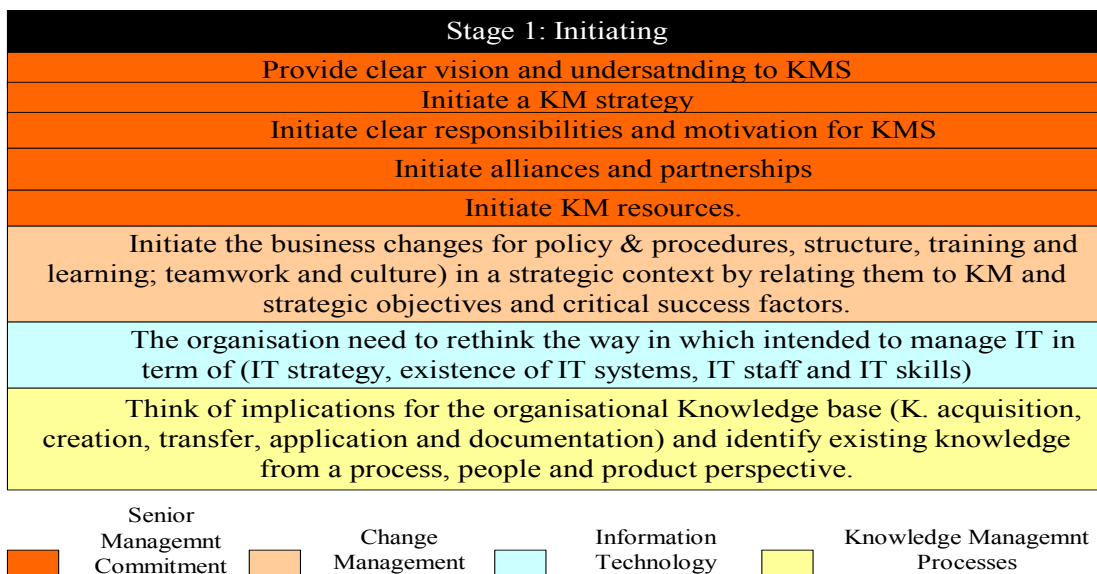
Stage 1: Initiating
Provide clear vision and undersatnding to KMS
Initiate a KM strategy
Initiate clear responsibilities and motivation for KMS
Initiate alliances and partnerships
Initiate KM resources.
Initiate the business changes for policy & procedures, structure, training and learning; teamwork and culture) in a strategic context by relating them to KM and strategic objectives and critical success factors.
The organisation need to rethink the way in which intended to manage IT in term of (IT strategy, existence of IT systems, IT staff and IT skills)
Think of implications for the organisational Knowledge base (K. acquisition, creation, transfer, application and documentation) and identify existing knowledge from a process, people and product perspective.

■ Senior Managemnt Commitment   ■ Change Management   ■ Information Technology   ■ Knowledge Managemnt Processes

Figure 5: the main duties in initiating a KM plan

Stage 2: Diagnosing
Monitoring and reviewing the state of the KMS vision and interest.
Monitoring KM strategy.
Reviewing the motivation systems to meet the employees' requirements as well as providing regulatory and legal requirements to promote knowledge process.
Identifying the opportunities provided by partnering for improving the performance of KM processes and within such a framework in the organisation.
Adjusting the resource levels for new activities/priorities of KM, and how could be managed independently by each organisational unit (e.g. branch, region).
Reviewing organisation's strategy, policy, procedure, and structure to meet knowledge process requirements in a reliable and timely manner.
Scanning the organisation's structure for KM department.
Analysis of training and learning requirement is done using integrated information; managers' skills gaps in KM practices are being analysed.
Reviewing the work distribution in line with individual competencies and preferences of the teamwork.
Scanning the culture barriers that might prevent efficient delivery of KM.
Determining the type of information technology systems required by the organisation to perform KM successfully.
Scanning for the strategic opportunities provided by IT; That can the organisation benefit from some of the conditional commitment
Reviewing the levels of IT skills in all departments, and partial commitment to R&D initiatives may slow down the rate of progress of IT.
Reviewing the existence of IT staff.
Clarify the knowledge dimension of the business problem by identifying the KM processes (K. acquisition, creation, transfer, application and documentation) involved and determine knowledge gap from a process, people and product perspective.

Senior Management Commitment	Change Management	Information Technology	Knowledge Management Process

Figure 6: the main duties in diagnosing KM infrastructures

712

Stage 3: Establishing
A long term KM plan is established, and is closely aligned with the organisation strategic and business plans and organisation's corporate strategy and shapes the organisation's knowledge culture.
Appointing a Knowledge chief executive whom will be the champion for KM project.
New programs are introduced as appropriate to improve employee satisfaction and assessing members and rewarded them for developing new knowledge and testing new ideas.
Starting partnerships and collaboration which provide the organisation to learn from others, and transfer knowledge to their organisation base.
Re-allocating all resources needed for KM programs based on priorities that reflect results achieved.
Establishing the KM policy and procedures and knowledge standards and cycles, also building KM guidelines for specific operational areas.
Developing the structure of KM department with full KM responsibility for strategy and business.
Developing well and a wide range of training & learning and provide support tools and techniques to be fully understood and used by all staff in term of KM. Learning plans have been developed.
Initiating a strong sense of teamwork across the organisation and linking incentives, rewards, and recognition with teams' contribution.
Initiating a KM supports cultural to shift knowledge -smart workforce and environment. The organisation is truly planning to exploit co-operation culture for improving its position, capabilities and expertise.
Establishing IT strategy for the whole of the organisation.
Establishing strategic IT applications services and networks with inside and outside entities to provide communication services for all individuals and groups in the organisation, and putting plan for providing diverse hardware architecture according to each unit's needs.
" Appointing a high level manager for IT services area, with middle management status.
Initiating core technical skills and some expertise outsourced to plan the strategic exploitation of IT for individual units and the organisation as whole.
Initiating KM acquisition activities such as collecting information needed and wishes of clients, active in an external professional network or association, doing researches (i.e. with universities) to explore future chances/possibilities
Initiating KM creation activities such as openly discussing problems, failure, and doubts in the banks, New ideas and insights lead, if necessary, to redesign of business processes and work methods, providing learning groups.
Initiating KM transferring activities such as starting knowledge sharing methods (KMS/Knowledge Portal), a people-oriented method (Storytelling) and a combination method (Micro articles), informs its members systematically of changes inn procedures, colleagues inform each other regularly about positive experiences and successful projects, Members change jobs regularly, thus distributing their know-how and so on.
Initiating KM application activities such as decision making depend on sufficient knowledge, selling knowledge, products, or services gets explicit attention, experience of clients are used to improve products and services, using existing know-how in a creative manner of new applications, frequently make use of brainstorming sessions to find solutions for problems we meet, failures and successes are evaluated and "lessons learned" are set down.
Initiating KM documentation activities such as having disposal up-to-date handbooks, which are frequently used, having documented all specific knowledge and skills of individual members, having up-to-date knowledge documentation systems.

	Senior Management Commitment		Change Management		Information Technology		Knowledge Managamnt Process

Figure 7: the main duties in establishing KM infrastructures

713

Stage 4: Acting
Involving the senior management in the whole KM presses and implementation through business efficiency to support KM objectives and goals.
Reviewing KM strategies are commonly used by senior managers to ensure the input into strategic and business planning.
Formal mechanisms are in place to survey employees' encouragement and satisfaction regarding to KM on a regular basis, and results are tracked over time; KM initiatives are linked to employees' satisfaction, hence employees are rewards regarding to their knowledge.
The organisation as individual becomes within the industry to prepare themselves for KM at their own discretion.
External and internal resources are provided to all managers and employees; resource planning models are used to estimate resource requirements for KM.
Integrating organisational policies and procedures in practices with KM activities.
Prepare an Action Plan and identify changes required in organisation's structure.
Managers are applying training & learning in their day-to-day operations of KM and seeking and up-grading the quality of training, also seeking to provide all key training and learning in term of KM.
The organisation starts to create a number of teamwork and culture that would support KM initiatives and corporate goals.
Organisations start fostering the culture of continuous learning and participation. Pro-active effort is acting to share new ideas and approaches across the organisation.
Start using and exploiting IT for the banks' strategic opportunities and can be able successfully to perform KM, as well as starting of full involvement of IT users in KM initiatives; IT Reviews are carried out as issues arise.
Select possible tools to support the KM processes identified in the context of your business problem; general communication tools are provided to link senior management with employees.
Existence of organisation-wide network, where all groups are connected, and the central IT staff provides communication services for all individuals and groups in the organisation.
Combining the roles of IT and business to plan the strategic IT for individual groups and the organisation as a whole, where the business IT planners have an experience from working in/with both users and the IT function which makes them cross-disciplinary; some of IT users are involved in KM initiatives.
Producing (creation) mode where the new knowledge is produced by interacting with the things in cognitive domains of the enterprise.
Acquiring mode where the new knowledge is acquired from internal and external sources; externalising mode where the convertible tacit knowledge of the members of the organisation is conceptualised, articulated and externalised; discovering mode where the knowledge hidden in the data sources of the organisation (e.g. databases, data warehouses) is discovered; synthesizing mode where the new knowledge is generated either by integrating the newly generated and validated knowledge with the existing knowledge or by combing the existing knowledge;
People are encouraged to increase interactions oinside and outside and tansfer for efficiencies by providing input and are allowed to make suggestions when changes occur; and are consulted and given opportunity some times to participate in major change initiatives.
Knowledge is used in functions, reviewing and monitoring purposes and shared amongst functions where interrelationships exist.
Knowledge is documented by technology and non-technology tools.

Legend:
- Senior Management Commitment
- Change Management
- Information Technology
- Knowledge Managamnt Process

Figure 8: the main duties in acting KM infrastructures

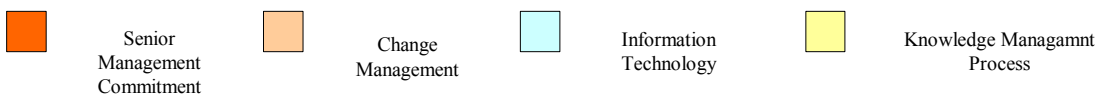| Stage 5: Learning |
|---|
| Value of KMS in the organisation is measured and tracked over time. |
| Improvements are created to develop strategic plans to address high priority issues related to KMS. A strong link exists between incentives, rewards, recognition, and teams' contribution. |
| Incentive, rewards, and recognition systems are constantly being improved, and customised to the needs of the organisation. |
| The organisation essentially beneficial from partnering in supporting its resources to support KM processes, and therefore require its larger partners in international organisations to show flexibility and adopt formats to accommodate their needs. |
| The resources allocation culture supports openness and flexibility. |
| The results of KMS are integrated in organisational policies, procedures, and practices. |
| The structure of KM department is a fully developed KM responsibility for strategy and business. |
| Organisation is truly exploiting training & learning for its KM activities. |
| Strong sense of teamwork exists across the organisation. |
| The organisation embraces innovation and responsible knowledge -taking; further, results of KM are used to support innovation, learning and continuous improvement. |
| The organisation is in a position to benefit from the IT culture that has been developed and maintain IT on the urgent agenda of concern of top management. |
| The organisation appears to be using and exploiting IT for its strategic opportunities and can be able successfully to perform KM. Also IT systems rely heavily on gathering and processing external in addition to internal data through the use of EDI systems with external entities such as customers, government and suppliers, which introduce problems of compatibility between external and internal data. |
| Existence of organisation-wide network, where all groups are connected, and the central IT staff provides communicat"   Full involvement of IT users in KM initiatives, communication is very smooth, with management controlling and not limiting information to employees. ion services for all individuals and groups in the organisation. |
| High levels of IT skills in all departments and partial commitment to R&D initiatives may slow down the rate of progress of IT in the organisation. |
| Teams at the organisation are regularly exchanging knowledge and reaches conclusive decisions related to major change. |
| Information flows freely within functional areas, and is shared between functional areas inside and outside; and people are able to speak out and participate in discussions without fear of reprimand. |
| Organisation fosters a culture of continuous learning and participation. Pro-active effort is made to share new ideas and approaches across the organisation. |
| People are empowered to take responsible for KM, and are encouraged to be innovative by using knowledge for what ever and where ever. |
| The organisation is regularly documented knowledge and retrieves it when needed. |

	Senior Management Commitment		Change Management		Information Technology		Knowledge Managamnt Process

Figure 9: the main duties in learning KM activities

4. HOW THIS FRAMEWORK WORKS

The aim of Stage 1 "Initiating a KM Plan" is to provide a support by the overall organisation as well as by the senior management to ensure that interest of KM is exists, and that the effort will be pushed forwards. Senior management, which, alone, has overall responsibility for different stages of the process, must lead the banks to a more global

approach to KM. A knowledge management strategy also needed to facilitate the transformation of the various types of knowledge within an organisation and to provide an evaluation mechanism to measure the effectiveness and efficiency of any strategy. It also needs to have users support (employees), which can be accomplished by involving users in the development process of KM. The aim of Stage 1 is to provide a structure for formulating a strategic business plan of KMS by identifying the external (business) drivers, defining strategic objectives or goals, identifying critical success factors, and developing measures to analyse the knowledge dimension of the problem. Figure 5 shows a condensed version of the template for developing a KMS plan. These CKIAs (key forces) are the key issues influencing an organisation to achieve or cope with radical future changes in the business environment regarding to KMS implementation. The outcome of Stage 1 is a business improvement plan of KMS with performance targets.

In the Stage 2 "Diagnosing KMS Infrastructures", the diagnosing phase builds upon the initiating phase to develop a more complete understanding of the improvement work. During the diagnosing phase two characterisations of the organisation are developed: the current state of the organisation and the desired future state. These organisational states are used to develop an approach for improving business practice. The goal of the banks scanning initiative is to provide an integrated and organisation-wide capability to develop a successful KMS implementation. The primary goal is to collect, analyse and interpret information from a variety sources. While directed at the needs of senior management, the resulting intelligence from the environmental scanning initiative will be of importance to others steps. As this scanning function develops, it will become more important to ensure that the processes and systems for implementing KM are open to all areas. Moreover, links between these findings and others in the literature will be necessary. The aim of Stage 2 is to clarify the whether the business problem has a knowledge dimension and to develop specific KM initiatives to address the business problem. The outcome of Stage 2 is a KM strategic plan with a set of initiatives and implementation tools to support business improvement. Figure 6 shows a condensed version of the steps involved in identifying the knowledge implications of a business strategy and for developing knowledge management initiatives for business improvement. Moreover, KM mechanisms can only be managed successfully if there is a mutual consensus to forge long-term partnerships and establish centralised KM processes.

Stage 3 "Establishing KMS Infrastructures", the aim of Stage 3 is, therefore, to provide a structured approach for implementing the KM initiatives (see Figure 7). Pan and Scarbrough (1998) report that management and leadership play a critical role in establishing the multi-level context needed for the effective assimilation of KM practices. Also there is a need to have the necessary infrastructure in place and having adequate resources to be able to demonstrate the further processes through a result oriented approach, for instance implementing of IT infrastructure in terms of establishing physical connectivity between people is a very important task. The infrastructure issue is affecting all businesses; today's environment is forcing organisations to obtain all or part of their overall infrastructures such as (IT, training and learning, teamwork, culture etc). The outcome of stage 3 is a KM strategy and an implementation plan with priorities and an appreciation of likely impact of various KM initiatives. This stage is the most challenging, as the justification of KM initiatives depends on the expected establishment of KM infrastructures. The outcome of Stages 1 and 2 of the KMIFBI Framework is a business improvement strategy underpinned by KM.

Step 4 "Acting a KM Infrastructures", the activities of the acting phase help an organisation implement the work that has been conceptualised and planned in the previous three phases. These activities will typically consume more calendar time and more resources than all of the other phases combined. As the adoption of the KMS grows organically, the management should promote the KMS to people to try to persuade them to use the KM systems and tools. Management should ensure that prospective users are educated and trained to use the KMS effectively, and people are given plenty of opportunities and encouraged to learn and use the KM system. By applying these "actionable" activities in each of the knowledge domains of the managerial knowledge portfolio it can be ensured that KM activities are perceived to be dealing with important managerial concerns and organisational issues. Managers should be focusing their attention on ensuring that there are processes, practices, and people with the appropriate capabilities in place to ensure that knowledge is being managed in each of these critical domains. In applying these KM activities to organisational work, managers are able to see where the value and limitations of certain KM initiatives and tools are. The Figure 8 gives more details of this step's activities. The out come of this step is a specific business context that creating values, and drawing on people with diverse expertise and knowledge both to enhance existing value chains, and to create new ones. The pace of change in the business environment in acting stage means that strategic plans can no longer be set for a fixed term and then implemented, but must continually evolve in response to management's evolving understanding of the organisation in the context of its environment.

Step 5 "Learning a KM Activities", the learning phase completes the improvement cycle. One of the goals of the KMIFBI framework is to continuously improve the ability to implement change. In the learning step, the entire KMIFBI experience is reviewed to determine what was accomplished, whether the effort accomplished the intended goals, and how the organisation can implement change more effectively and/or efficiently in the future. The Figure 9 gives more details. The out come of this step is given the importance of a strong organisational learning climate; and senior management needs to take the initiative for sponsorship and support of the efforts in this direction. However, due to the diverse background of the employees, senior management should not assume that cross-functional thinking happens overnight, especially in organisations traditionally characterised by functional isolations, domain dissimilarities and centralised management. One thing managers can do to facilitate learning and the acquisition of new knowledge is to offer continues training to individuals in areas where knowledge is needed or desired. Learning in organisations takes place when the experiential awareness traverses across departmental boundaries and results in leveraging the strategically valuable knowledge to improve goods and services. Francis and Mazany (1996) concluded that to become a learning organisation, an organisation must develop a wide range of knowledge, skills and characteristics. However, the beginning step is to develop the necessary structures to assist those within the organisation, as well as the organisation itself, to learn and to change. And finally any KM approach is always an ongoing communicative learning process that enables periodical revising of corporate strategies in the light of current business environment (Masini and Vasquez, 2003; Millett and Randles, 1986; Schwartz, 1996; van der Heijden et al., 2002). Therefore organisations adopting KMS have to carry on all KM activities and increase interaction between their infrastructures as well as having a long-term understanding of KM planning in order to plan new concepts sooner.

5. HOW TO READ THE KMIFBI FRAMEWORK

The success or failure of an organisation's KMS implementation rests more heavily on the organisation's ability to manage and combine between organisation commitments, change management, information technology and knowledge management processes. An organisation and its managers have to use a variety of approaches to combine, sort, and process the environmental knowledge to produce timely and relevant knowledge for forming, monitoring, evaluating, and modifying organisation's goals and objectives. This variety should reach a high integration level in order to be possible to obtain a strategic KMS. The banks have to follow five stages in Capability Maturity Model (CMM) format, whereas the banks can't move to the next stage unless finished the first one. Each step and its component are interconnected and build upon each other as shown in Figure 4 above. A balance of these elements must remain flexible in order to fit the business strategy and to adapt to a turbulent and ever-changing environment.

The out comes of the first stage are a securing senior management commitments and support; a developed business strategy of KMS implementation with an organisation clear vision and understanding of KM, In the second stage the out come is a model of the current knowledge infrastructure, reflection involves an analysis of strong and weak points, and determining where opportunities for improvement to the knowledge infrastructure lie, so a record of the current status CKIAs will be available.

The out comes of third stage are organisation and senior management establish and implement a knowledge infrastructure and support system that enhances and facilitates the knowledge processes (acquisition, creation, transfer, application and documentation) of at the appropriate levels.

The act step (forth) consists of the actual consolidation, integration, development, and distribution of knowledge. The outcome for the act stage is the actual implementation of a new knowledge infrastructure. The fourth step of the knowledge management process cycle is the review of the results of actions taken, using assessment criteria. Criteria should consider whether the infrastructure contains the right knowledge, whether the knowledge infrastructure is stable or susceptible to change, whether it is in a form that permits easy use, and whether the people who need the knowledge can easily access it.

In stage five (learning), however before conceptualisation can occur, an organisation must have experience. It can be suggested that the knowledge management process cycle is actually a reflection of the cycle of organisational learning whereby knowledge is created through the transformation of experience can also be applied to organisations.

6. CONCLUSION

This paper has described the process and analyses under which the KMIFBI framework is developed to improve the LPBs strategic capabilities relatively to knowledge management processes and implementation. Since the dynamic aspect of knowledge management processes depends largely on individual and organisational commitments, IT systems, skills and behaviours, these areas that the framework has developed specifically in order to build a high degree of responsiveness, and a willingness to re-examine continually the knowledge processes. The KMIFBI Framework has to be validated in the next step. This

validation could be with the potential adopters and of professionals they already have a KMS in place.

7. REFERENCES

Bailey, C. and Clarke, M., (2000), How do managers use knowledge about knowledge management? *Journal of Knowledge Management*, Vol. 4, No. 3, pp. 235-243.

Francis, S. D., and Mazany, P. C., (1996), Developing elements of a learning organisation in a metropolitan ambulance service: strategy, team development and continuous improvement, *Journal of Management Development,* 15 pp. 4-19.

Kim, L., (1999) Knowledge management and competitiveness", *Proceedings of the Second Symposium of Knowledge Management,* Seoul, 1-24.

Masini, E., Vasquez, J., 2003, "Scenarios as seen from a human and social perspective", *Technological Forecasting and Social Change*, 65, 49-66.

Millett, S.M., Randles, F., 1986, "Scenarios for strategic business planning: a case history for aerospace and defense companies", Interfaces, 16, 6, 64-72.

Robertson, J., (2002), Benefits of a KM framework", available at: www.intranetjournal.com/articles/200207/se_07_31_02a.html Accessed 2003 12-3.

Rubenstein-Montano, B., Liebowitz, J., Buchwalter, J., McCaw, D., Newman, B. and Rebeck, K., (2001a), systems thinking framework for knowledge management, *Decision Support Systems,* Vol. 31, No. 1, pp. 5-16.

Scarbrough, H. and Swan, J., (1999), Knowledge Management: A Literature Review, *IPD*, London.

Schwartz, P., 1996, The Art of the Long View - Planning for the Future in an Uncertain World, *Doubleday Dell Publishing*, New York, NY.

van der Heijden, K., Bradfield, R., George, B., Cairns, G. and Wright, G., (2002), The Sixth Sense - Accelerating Organisational Learning with Scenarios, *John Wiley & Sons,* Chitchester.

Wiig, K. M., (1997a), Knowledge management: where did it come from and where will it go?" Journal of Expert Systems with Applications, 13, 1, *Special Issue on Knowledge Management,* pp. 1-14.

Bollinger, S. and Smith, D., (2001), Managing organisational knowledge as a strategic asset, *Journal of Knowledge Management,* Vol. 5, No.1, pp. 8-1