

AN ASSESSMENT OF KNOWLEDGE MANAGEMENT CAPABILITIES OF NIGERIAN BANKING INSTITUTIONS

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Abstract

The Nigerian banking industry is highly regulated and relies on its knowledge workers in order to deliver good quality products and services. Despite the importance of banking institutions to Nigerian economy and the growing recognition of the importance of Knowledge Management (KM) across the world, there has been very little research carried out on assessing KM capabilities of banking institutions. In this work, the KM capabilities of Nigerian banks were examined. Structured questionnaire was used to capture information on both explicit and tacit knowledge from 5 personnel each from the existing 25 Nigerian banks. A KM tool was also implemented using C# to measure and monitor knowledge management capabilities of these banks. It was found out that these banks possess both organizational and operational environment for knowledge management. Also, KM is not a term in widespread use within the banks because it has not been recognized as a strategic issue for their effectiveness and development. All the banks studied had significant organizational capabilities for KM, but with higher levels of success in knowledge protection processes and the general culture for knowledge sharing. It was also found out that tacit knowledge is always lost through employees leaving, transferring or retiring. Best practices and lessons learned are not being captured and utilized effectively. It is therefore recommended that KM should be considered as a significant issue towards proper utilization of employees' knowledge and skills.

Introduction

Over several years, there have been different techniques and tools used to assist organisations in making effective decision-making. Some of them are Management By Objectives (MBO), Total Quality Management (TQM), Decision Support System (DSS), Management Information System (MIS), Strategic Information System (SIS), Quantitative Techniques (QTs) and so on. These systems have contributed to individual and organizational improvements in varying degrees and have continued to be important components of organizations' strategies.

Nowadays, the business landscape is changing rapidly and the competitive environment is no longer predictable. Survival and success depend entirely on the organization's ability to adjust to the dynamics of the business environment by making effective decision-making and proper utilization of skills and knowledge of employees. It is then paramount to develop more efficient and strategic techniques to assist organizations meet their general and competitive objectives. The advancement in Information Technology (IT) has provided opportunities for organizations to utilize tools that will assist in business development and management.

An emerging organizational strategic discipline that focuses on creating, gathering, organizing, and disseminating knowledge is known as Knowledge Management (KM). Knowledge Management refers to the process for acquiring, organizing and communicating both tacit and explicit knowledge of employees in order to improve productivity. Henderson and Sussman (1997) defines KM as the ability of an organization to create, share and use the collective knowledge of its products, processes and people. KM is about bringing more sophisticated and job specific information to people on an individual basis.

The concept of knowledge emanated from the hierarchy of data that is described as follows:

Data are raw facts

Information: processed data with context and perspective.

Knowledge: is information with guidance for action.

Wisdom: is understanding which knowledge to use for what purpose.

Knowledge can be classified into two:

Explicit knowledge: It is the knowledge that is collected, stored, distributed and shared primarily as electronic or paper documents. It is simply the knowledge acquired through training and education.

Tacit knowledge: This involves special productive knowledge and skills possessed by individual. It also includes cognitive skills such as belief, images, intuition and mental models as well as technical skills.

Some of the key issues of KM in organization are:

- Relating candidate's knowledge to overall organizational objectives before employment.
- Ensuring that employees' explicit and tacit knowledge are maximally tapped or collected and utilized.
- Ensuring that these knowledge are passed or disseminated to other employees within the organization.
- Ensuring that employees' knowledge is sustained, maintained and improved upon.

The concept of coding and transmitting knowledge in organizations is not new. Training and employees' development programs, organization policies, routines, procedures, reports, and manuals have served this function for years. By capturing, codifying, and disseminating this knowledge, the company reduces the level of required know-how for its managers while improving the effectiveness and efficiency of its operations (Peters, 1992). What is new and exciting in the knowledge management area is the potential of using modern information technologies (e.g., the internet, intranets, browsers, data warehouses, data filters and software agents) to systematize, facilitate, and expedite firm-wide knowledge management.

Knowledge management in Nigerian banking system

Knowledge Management is a new and tested concept that can help banks meet their goals and objectives. The financial sector is always paramount to the development of any economy and there is need to carefully tap knowledge possessed by employees in order to realise this goal. The recent reforms in Nigerian financial sector might not be enough in putting Nigerian banks in desired standards if employees' skills and knowledge are not properly and adequately tapped, utilized and managed.

Despite the importance of financial institutions to the Nigerian economy, and the recognition of the importance of KM across many sectors of the economy, there has been very little research on the introduction and assessment of KM in financial institutions in Nigeria. The major components of KM in organizations are:

Policy: This has to do with the extent in which the policies of organization support KM. Do the policies support effective knowledge utilisation and sharing?

Infrastructure: This has to do with whether the organizations provide the required assets and materials to support KM or not. Does your organization have enable IT environment that support KM?

Relationship: This component has to do with the interpersonal relationship between employees and their boss. It has to do with leadership quality and general management strategy.

Research objectives

The specific objectives of this work are:

- i. To justify the need for knowledge management in Nigerian banking institutions
- ii. To capture knowledge management capability information from these banks
- iii. To develop a software tool for analyzing and assessing knowledge management capabilities of banks
- iv. To evaluate the KM capabilities of these banks using the tool designed.

The rest of the paper is organized as follows. Section 2 presents related works. The design methodology is presented in section 3. The evaluation and discussion of result are discussed in Section 4. Future work and conclusion are presented in Section 5.

Literature review

Considering the importance of KM, relatively little research has been done on its overall role in the banking industry. While there has been wide coverage in the literature of the work done by Stephen Denning (Denning,

2002) at the World Bank and by Hubert St. Onge (Stewart, 1997) at the CIBC in the 1990's, a lot of research still have to be carried out so as to put KM in its right place.

Buglass (2001) mentioned that banks take a human resource focused approaches (such as learning management systems, and talent management systems) and recommended e-learning for improving job performance. This might not be enough if key issues of KM are not fully considered.

The existing body of works on KM consists primarily of general and conceptual principles (Davenport, 1997) and case descriptions of such systems in a handful organizations (Alavi, 1997; Baird *et al.* 2006; Watts *et al.* 1997). Since KM is just beginning to appear in organizations, little research and insight exist to guide the successful development and implementation of such systems, or to frame expectations of the benefits and costs.

Some surveys were found that included major banks in the study, but none included specific banking findings. Xerox Europe conducted a survey of banking and financial institutions (Cross, 2001). It was found out in this study that two-third of European banks fail to exploit their intellectual capital by not having a knowledge management strategy in place. A study in Australian financial institutions, using the same framework, produced similar results (Burstein *et al.*, 2002). This study tends to find out the KM positions in Nigerian banks.

Methodology

The research methodology is divided into two parts. The first is on research survey conducted to capture KM information from the Nigerian banks. The second is on the methodology for the design of the tool for assessing KM capabilities.

Research survey

a. Area of study

As it has been mentioned earlier, the area of study is Nigeria and the population is Nigerian banks. Since Nigerian banks are crucial to the realization of the National Economic Empowerment and Development Strategy (NEEDS), it is important to develop techniques and tools that will assist these banks in realizing this national goal. All the emerging 25 banks from the recent consolidation of Nigerian banks are considered.

b. Sampling

Fifteen employees are purposively selected each from these banks. The sample was chosen so as to collect KM data from different levels of employees. The analysis of the sample selected is presented as follows:

Management	5
Middle managers	5
Other senior staff	5
TOTAL	15

c. Method of data collection

A pre-tested questionnaire was used as instrument for initial data collection. The questionnaire is then used to build the on-line questionnaire in the software tool. The total number of sample is 325 (15 x 25).

d. Method of data analysis

The tool developed is used to analyse the data gathered using descriptive statistics.

KM assessment architecture

The software tool architecture for assessing KM capabilities consists of three layers, which are Assessor, Enabler and Presenter as shown in Figure 1.

a. Assessor

This layer consists of input, assessment and output methods. The main input involves the design of the on-line questionnaire. As it was stated earlier, the questionnaire used for survey is translated to the on-line questionnaire. 10 close-ended questions are constructed to capture data about each of the components of KM, therefore, making a total of 30 KM assessment questions.

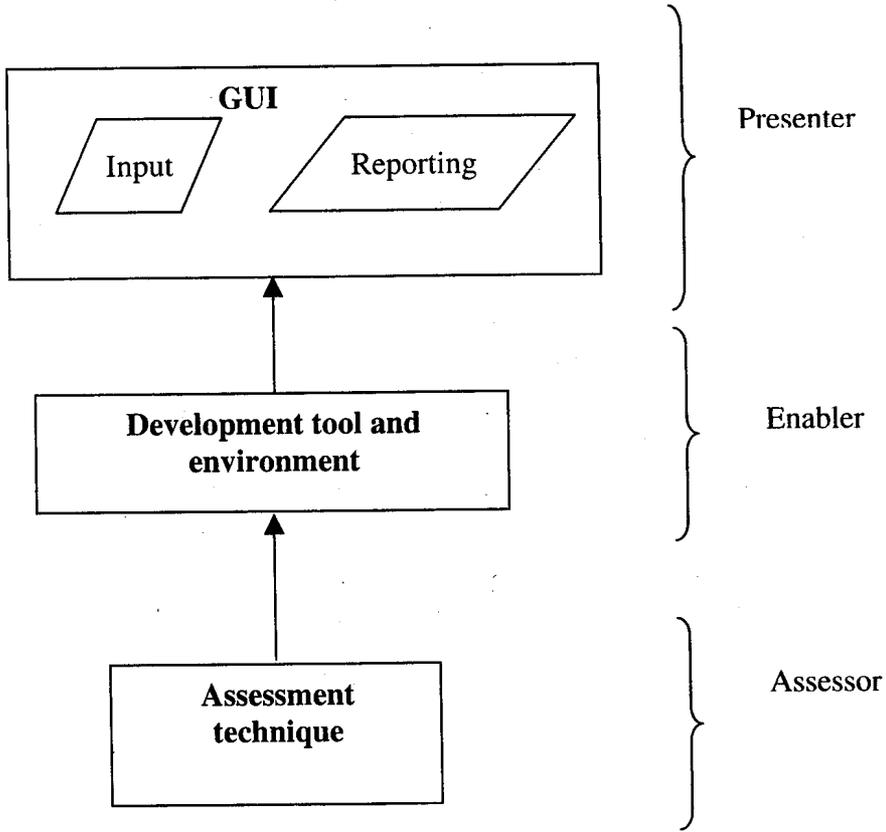


Figure 1: KM Assessment architecture.

For the assessment, 0 value is attached to “No” option and 1 to “Yes” option. The score per component is then calculated based on an individual response as follows:

$$C_s = \sum_{i=1}^n R_i$$

Where C_s represents component score.
 R_i means Response for question i .
 n represents total number of questions per component
 (in this case, $n = 15$).

The component score per bank is calculated as follows:

$$C_b = \sum_{j=1}^m C_{s(j)}$$

Where C_b represents Component score per bank.
 $C_{s(j)}$ represents Component score per respondent in a bank.
 m represents number of respondents in a bank.
 (in this case, $m = 15$).

The aggregate component score for Nigerian banks is calculated as follows:

$$C_a = \frac{\sum_{k=1}^T C_b}{T}$$

Where C_a represents aggregate component score in Nigerian banks.
 C_b represents Component score per bank.

T represents total number of banks,
(in this case, $T = 25$).

The output has to do with the form of result reporting. Assessment results are presented empirically and in visual form based on the result of the assessment technique.

b. Enabler

This consists of the Programming Language (PL) and other associated tools that can be used for the development. Most object-oriented PLs can be used for the implementation. The implementation language in this work is C# (C-Sharp).

c. Presenter

This layer is concerned with the design of the Graphical User Interface (GUI) for effective interaction with users. It provides different options to support effective data capturing, user interaction, assessment and reporting.

Implementation

C# was used for the implementation because of its interactiveness and ability to support data analysis. The implementation structure is given below.

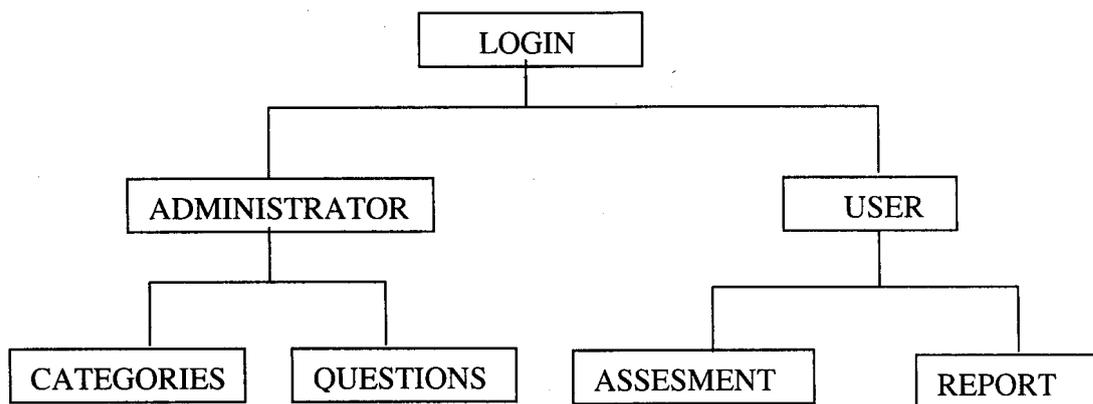


Figure 2: Implementation structure.

The implementation allows two types of users, the administrator and other users. The administrator is allowed to state the different categories of banks and construct or extend the on-line questionnaire. The different users can only respond to the questionnaire and be presented with the assessment report.

Some of the design interfaces are presented in Figures 3 and 4.

Results and summary

The analysis is done using the tool developed. Some of the results are:

a. Understanding of KM

High	2%
Average	4.2%
Low	13%
None	80.8%

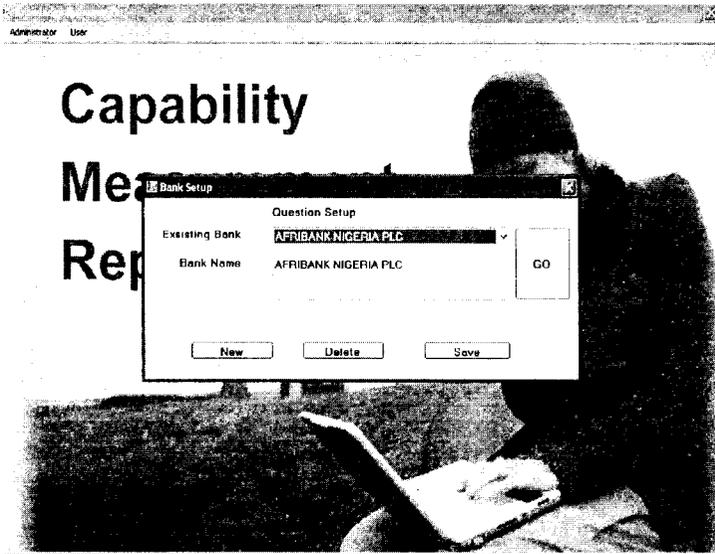


Figure 3: Interface for setting banks.

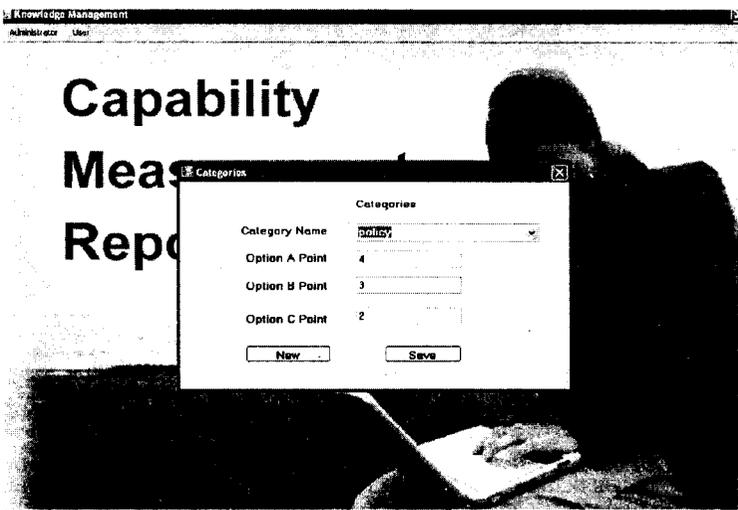


Figure 4: Interface for setting questions' components.

b. Possession of KM infrastructure

High	33%
Average	37.7%
Low	21%
None	8.3%

c. Maintenance of organizational knowledge

Improper identification or determination of employees' knowledge	45.9%
Loss of tacit knowledge through employing leaving	78%
Inadequate capturing of explicit knowledge	57.6%
Inadequate utilization of explicit knowledge	60.2%
Inadequate maintenance of knowledge	53.1%

- | | | |
|----|--|------|
| d. | Availability of KM tools | 2.8% |
| e. | Effective capturing of best practices and lesson learned | 3.3% |
| f. | Effective utilization of best practices and lesson learned | 0.9% |

Summary of KM capability in Nigerian banks is illustrated in Figure 5.

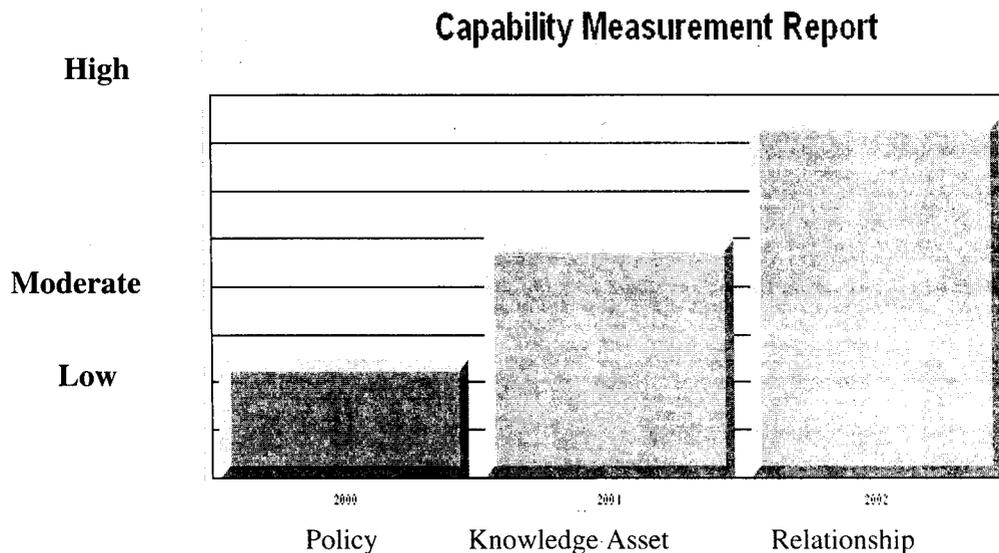


Figure 5: Summary of KM capability in Nigerian banks.

It was shown that out of the three components of knowledge management infrastructure, Nigerian banks support most in terms of relationship. Figure V also shows that the policies of Nigerian banks have low support for KM.

Conclusion

For banks to operate more profitably, it is necessary to manage knowledge that exists within the organization efficiently. KM is a function that should be embedded into every business process- new products and services, new channels of distribution, new marketing strategies, and new industry definitions. Despite this, it was found out that KM has not been fully exploited or embraced by Nigerian banks. It is also important for Nigerian banks to measure regularly their knowledge management capabilities so as to improve on ways of fully maximizing organizational knowledge.

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