

The Role of Knowledge Management on Knowledge Management Performance: A Case Study of Some Nigerian Banks

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Abstract

The increasing complexity of organisational environment and the intensity of competition among organisations demand the application of knowledge management in order to effectively achieve organizational objectives. The research set out to determine the main interaction effect of knowledge enablers and knowledge process capability on knowledge management performance. The study also sought to ascertain whether there is or not a significant relationship between knowledge management process capability and knowledge management performance.

The study employed Survey method using questionnaire to gather primary data. The target populations of the study were employees of some selected banks in Oyo town, Oyo State of Nigeria. Four hypotheses were formulated and tested, using multiple regression, t-test, and analysis of variance and Pearson's Correlation method.

The result of the study showed that knowledge management has positive influence on knowledge management performance. The study equally found out that there was main interaction effect of knowledge Management enablers and knowledge management process capability on knowledge management performance. The study found significant positive relationship between knowledge management enablers and knowledge management performance.

The conclusion is that the knowledge management variables can be predictors of knowledge management performance.

It is recommended that banks as well as other organisations should imbibe the concept of organizational learning as well as ensuring that employees are well trained and developed to acquire pertinent knowledge to cope effectively with contemporary challenges.

Keywords: knowledge management process capability, knowledge management performance, knowledge enablers, Nigerian banks

1. Introduction

Knowledge Management though, conceptualised in different ways by different people has gained grounds in recent years and has attracted attention of both theorists, scientists and experts. Mc Gee (2010) has conceptualized Knowledge Management as a process of identifying, extracting and managing the information, intellectual property and accumulated knowledge that exist within a company and in the minds of its employees. Knowledge management also comprises a range of strategies and practices used in an organization to identify, create, represent, distribute and enable adoption of insights and experiences. Indeed such insights and experiences comprise knowledge either embodied in individuals or embodied in an organization as processed practices. Wright (2005) contends that Knowledge Management refers to the Management of knowledge at the individual level.

Interest in Knowledge Management has grown especially in large organizations both profit and non-profit ones because it is viewed as a strategic advantage variable. In a recent academic analysis, knowledge management has been conceived as the development of tools, processes, systems, structures and cultures explicitly to improve use of knowledge critically for decision making Luthans (2005).

Two trends have emerged to represent Knowledge Management in the literature and actual practice, Luthans (2005). The two include:

- (a) Tangible knowledge assets captured and retained in organization structures and systems

(b) Intangible knowledge or intelligence processed by employees and other stakeholders.

Knowledge Management includes efforts mainly focused in organizational objectives such competitive advantage, and innovation improve performance. Dimensions of Knowledge Management also includes on the job discussion, formal apprenticeship, professional training as well as mentoring programmes.

Effective knowledge Management is indeed critical as organizations strive to enhance their competence and gain economic advantage. Firms have become much more interested in stimulating knowledge which is considered as the greatest asset for their decision making and strategy formulation (Keskin 2005) Knowledge Management can be used to create business value, generate competitive advantage, achieve business goals and develop greater value from the core competencies of the business (Tiwan 2001). Indeed, increasing number of firms are beginning to appreciate the fact that knowledge management is a fundamental resource for competitiveness.

It is necessary to manage knowledge effectively in the new economy because a sustained competitive advantage depends on a firm's capacity to develop and deploy its knowledge based resources effectively (Perey and Pablos 2003). Empirical evidence points to the fact that knowledge management research appears fragmented across a variety of disciplines. Furthermore, research appears fragmented conceptually especially with regard to knowledge concepts that organizations assume as significant including knowledge management strategy, knowledge management process capability, knowledge management enablers and their relationship to knowledge management performance. Empirical evidence also indicates that such research appears to examine the relationships among knowledge management strategy, knowledge management enablers, knowledge management process capability and knowledge management performance separately. Some research focused on the relationship between knowledge management strategy and performance (Kaskin 2005; Singh Zollo 1998) while others focused on the relationships among knowledge management process capability and knowledge management performance (Malhotra and segars 2001; Park 2006). Little or no research or investigation appears to have been done in the area of relationship among organizational characteristics, knowledge management enablers, knowledge management process capability and knowledge management performance.

This study is concerned with identifying the influence of knowledge management in knowledge performance in some banks in Nigeria. It is also intended to ascertain whether knowledge management enablers and knowledge management process capability will jointly and independently predict knowledge management performance.

1.1 Research Questions

It is expected that the outcome of the study would provide answers to certain pertinent questions. The following questions would therefore, be addressed by the study.

1. Is there any significant relationship between knowledge management enablers and knowledge management performance?
2. How can knowledge management enablers and knowledge management process capability jointly and independently predict knowledge management performance?
3. Will there be a substantial interaction effect of knowledge enablers and knowledge management process capability on knowledge management performance?
4. Will there be any significant relationship between knowledge management process capability and knowledge management performance.

1.2 Research Hypotheses

Some hypotheses were formulated and tested with the data and information gathered during the study.

The hypotheses include the following:

1. There will be a significant relationship between knowledge management enablers and knowledge management performance.
2. Knowledge management process capability will jointly and independently predict knowledge management performance.
3. There will be a significant relationship between knowledge management performance and knowledge management process capability.
4. There will be substantial interaction effect of knowledge management enablers and knowledge management capability on knowledge management performance.

2. Literature Review

A review of the literature in this area of the study becomes a sine-qua non. Companies are experiencing unexpected challenges which include measuring knowledge management and identifying influence of knowledge on organizational performance (Darroch and Mc Naughton 2003) Luthans (2005) identifies two trends that represent knowledge management in the Literature and actual practice and they are: (a)Tangible knowledge assets which are captured and retained in the organisation structure and systems and (b)Intangible knowledge or intelligence which is processed by the employees and other stakeholders in the organization. For Irancevich et al (2011) treating knowledge as a tangible asset is an approach that employs information technology to acquire and store information to be drawn upon by management decision makers and others to make products or deliver services to customers. Nonaka (1996) argues that those organizations that will be commercially successful in the future are those that have effectively managed both explicit and tacit aspects of their knowledge.

The need to manage knowledge efficiently though accepted, knowledge management is still an intangible concept and much of the literature continues to explore these intangible issues (Darroch and Mc Naughton 2002), (Hupic et al 2002) take the view that knowledge is a multifaceted and multilayered concept meaning different thing to different circumstances. According to (Loyd 1999), knowledge management strategies need to be grounded in the concept of wisdom hence he defines wisdom as knowledge with long shell-life whereas data and information are with short-shell life. Knowledge management is not restricted to internal company activities; organizations can form strategic alliances with a wide variety of other organizations. This strategic alliance can take the form of supply chain management (Slack et al 1998). Mintzberg et al (1998 p35) describes future successful organizations as amoebas. Such simple creatures are among the most successful on earth as they constantly change shape and adapt to their environment. Presumably, this adaptability is the result of application of intangible knowledge. To Agrawal (2004) a new form of knowledge is generated by combining (analyzing, categorizing and integrating) externalized, explicit knowledge of several individuals/entities so as to create a new explicit from tacit knowledge. For McGee et al (2010) the value chain, popular for its simple and robust character, can be restated firstly in language of core competencies but more fundamentally in this language of knowledge. Winter (1987), McGee et al (2005), identify three categories of knowledge, namely; specific knowledge which relates to production function; organizational knowledge which is transformed into organisational activities through dynamic pathways and knowledge web which are turned into value creating activities.

Nonnka and Takeuchi (1995) argue that the systematic knowledge ingrained in the firm, its processes and its people are the single most important resources for the firm. Boists (1987) knowledge model added another dimension by considering knowledge as either codified (knowledge that can be readily prepared for transmission puposes), uncodified knowledge that cannot easily be prepared for transmission purposes. DeLong and Tahey (2000) argue that the major source of confusion in discussions about knowledge and knowledge management in organisations is the failure to recognise that there are at least three distinct types of knowledge, human knowledge, social knowledge and structural knowledge. Quin, Anderson and Finkenslein 1996; Miller Dermaid and Quintas 1997, Blacker 1995 all have explored different types of knowledge. For Niig (1994) Knowledge management in an organization must be considered from three dimensions, business perspective, focusing on why, where and what, management perspective focusing on determining, organizing, directing and monitoring knowledge and hands-on-operational perspective deals with applications of professional skills to conduct explicit knowledge related work. Keskin (2005) contends that knowledge management is a principle that is aimed at satisfying and exceeding the customers' expectation.

Syed-Ikhsan and Rowland (2004) looked at the relationship between organizational elements and the performance of knowledge transfer in the public sector and discovered successful relationship between knowledge management enablers (technology, structure and culture) and knowledge management. Lee and Choi (2003) took the view that technology is the presence of information technology support within the organization. The important role of information technology is the ability to support communication, collaboration and the search for knowledge and enable collaborative learning (Ngoc 2005). Furthermore, Davenport and Trusark (1998) regard information technology as both the key contributor and an enabler in the field of knowledge management. Marwick (2001) has opined that a number of information technology tools be applied to the different knowledge creation processes. Information technology is that part of effective knowledge management that can be classified into communication technologies and communication technologies which provide ways to enable intensity and expand interactions of organizational members and departments (Kendall 1977, Song et al 2001). It has been advised that in creating, transferring and storing knowledge through technological infrastructure, an organization must take steps to ensure that its knowledge is not stolen or used in-inappropriately (Gold, Malhotra and Segars 2001).

An organization structure that promotes individualistic behaviour where locations, divisions and functions are rewarded for hoarding information, inhibits effective knowledge management within the organization (O'Dell and Grayson 1998). The absence of formal structure tends to allow organization members to communicate and interact with one another to create knowledge (Jorrepaa and Staples 2000).

Organization culture influences how people respond to a situation and how the environment encompassing the organization is interpreted (Mavondo and Farrell 2004). Indeed organizational culture is believed to be the most significant factor in effective knowledge management (Gold, Melhotra and Segars 2001). An effective organization culture can provide support and incentives as well as encourage knowledge-related activities by creating suitable environment for knowledge exchange and accessibility (Janz and Prasarnphanich 2003).

Empirical evidence suggests that collaboration, trust and incentives are the essential components of organizational culture (De Tienne, et al 2004). According to Alavi and Leidner (2001) a collaborative environment creates opportunities for knowledgeable people to share knowledge openly and have more successful knowledge management programmes.

The need to measure the impact of knowledge management processes and to determine their benefits that can result from appropriate management efforts becomes important in any research on knowledge management. Indicators for measuring organizational performance can be categorized into financial indicators and non financial indicators (Allen and Helms 2002; Van Baren 1999).

The financial objective of knowledge management is to capitalize on knowledge assets to increase profit, reduce costs and sales (Kalling 2003). In their research on the link between knowledge management and performance, (Yu, Kim and Kim 2004) concluded that each factor of knowledge management is associated with a different set of drivers. Chen and Chen (2005) adopted the balance sheet score card approach to examine the gap between target performance and current performance value. Knowledge gap can be identified by adopting benchmarking and best practices in order to increase the operational performance of intellectual capital and consequentially improve capabilities of managing knowledge so as to attain competitive advantage in market place (Marr 2004; Wang and Ahmed 2004).

Overtime, environmental changes occur, new forms of organization become appropriate and gaps emerge between environmental requirement and existing capabilities. These gaps cause routine to become dysfunctional (Teece et al 1997); Leonard-Barton 1992, inhibits routine development of the firm (Levitt and March 1998), Henderson and Clark 1990, Leonard-Barton 1992, Collins in and Wilson 2006). On the whole and according to Luthans (2005) knowledge management must recognize human and intellectual capital and how it can be effectively shaped and leveraged in order to create wealth and increase profitability.

3. Theoretical Frame

There are certain theoretical concepts on which this study is premised. These theories include Choi's (2002) model, Lee and Choi's (2003) model and Park's (2006) model. Choi's model identified the constructs of knowledge management, strategy and knowledge performance. The model posited that knowledge management strategy was positively related to the knowledge management process capability and knowledge management performance. The Lee and Choi model concentrated on knowledge management enablers and indicated that knowledge management enablers are related to the knowledge management process capability and knowledge management performance. Choi and Lee's (2003) extended model focused on knowledge creation and acquisition.

Park's (2006) model concerned itself with knowledge management process capability and did indicate that knowledge management enablers and knowledge management process capability are positively related to knowledge management performance. Choi's (2002) model of two dimensional perspectives of knowledge management strategy, system orientation and human orientation is important. In measuring knowledge management performance, the model combined financial indicators with non-financial indicators to compare major competitors in major areas including profitability, growth rate, market share, innovation and success. The indication is that the degree of the use of human orientation strategy and system orientation strategy are positively related to knowledge creation capability and knowledge management performance. The model, therefore, proposed that knowledge management strategies should not focus only on one strategy but should utilize both strategies depending on the knowledge characteristics.

The Lee and Choi (2002) and Park's (2006) models concentrated on three knowledge management enablers namely; technology, structure and organizational structure. Park's (2006) model categorized the knowledge management process as knowledge acquisition, knowledge conversion, knowledge protection and knowledge application. The model takes the view that better management of the knowledge management enablers (technology, structure and

organizational culture) result in greater knowledge management capability, knowledge acquisition, knowledge production, knowledge conversion and knowledge application. The indication is that knowledge management performance can be influenced by knowledge management enablers and knowledge management process capability.

4. Research Methodology

The research adopted a survey design which measured two constructs or variables, independent variables and dependent variables. Independent variables are Knowledge management enablers and knowledge management process capability while the dependent variable is knowledge management performance.

4.1 Sample and Data Collection

The total population for the study was about 500 staff of some commercial banks located at Oyo town, South West of Nigeria. Out of the total population one hundred and fifty were selected by stratified random sampling method. This method was chosen to ensure adequate coverage of relevant cadres of personnel in the banks.

4.2 Research Instruments

The study made use of questionnaire as the instrument for data collection. Questionnaire which was designed was divided into four sections. The first section was concerned with demographic information. The second, third and fourth sections measured knowledge management enablers, knowledge management process capability and knowledge management performance respectively. The knowledge management performance design was adapted from the scale of Choi and Lee (2002). Tiwan (2001) with a likert scale scoring format ranging from strongly disagree (1), disagree (2), indifferent (3), agree (4), to strongly agree (5). Knowledge management enablers was measured in sections B of the questionnaire which is items 27 questionnaire, knowledge management process capability was measured in section C which is a 25 item questionnaire while knowledge management performance was measured in section D which is a 5 item questionnaire.

4.3 Validity and Reliability of the Instrument

In order to give credence and improve the confidence level of the outcome of the instruments, they were re-validated and the cronbach alpha reliability coefficients gave the following results, knowledge management performance. .77, knowledge management enablers. .73 and knowledge management process capability. .78.

4.4 Data Presentation, Analysis and Interpretation

The results of the data analysis as well as the interpretation of the results are presented here. The first part deals with analysis of the demographic information while the second part is concerned with the testing of the research hypotheses formulated for the study.

4.5 Analysis of Demographic Data

Table 1. Showing the descriptive statistics of demographics

Demographic Variables		
Sex	Frequency	Percentage
Male	38	28.4
Female	96	71.6
Total	134	100.0
Age	Frequency	Percentage
18 - 25 years	11	8.2
26 – 35 years	99	73.9
36 – 45 years	21	15.2
46 – 55 years	03	2.2
Total	134	100.0
Marital Status	Frequency	Percentage
Single	10	7.5
Married	124	92.5
Total	134	100.0
Educational Background	Frequency	Percentage
Post graduate	90	67.2
B.Sc/HND	44	32.8
Total	134	100.0

Source: Field Survey 2013

Table 1 above shows that there were 38(28.4%) male respondents while the female respondents were 96(71.6%). This result appears contrary to generally held opinion that banks prefer male workers to female employees because of the long hours of work in the bank.

Table one also indicates that the respondents were within the age range of 18-25years 11(8.2%), 26-35 years 99(73.9%), 36-45 years 21(15.7%) while those between 46-55 years were 3(2.2%).

It is discernable from Table 1, also that 10(7.5%) respondents were single while 124(92.5%) were married. This result appears to debunk the age held view that banks prefer single employees to married one because of alleged family distractions. The table, also shows that 90(67.2%) of the respondents held postgraduate certificates/degrees while 44(32.8%) held Higher National Diploma or first degree certificates. Going by this result it would seem that banks in Nigeria go for highly qualified employees. However, whether this translates to higher quality service is quite a different thing and indeed another issue for further research. It as also, gathered during the study that 39(18%) of the respondents were in management position; 41(19.6) in senior staff position while 81(38.8%0 were junior staff.

4.6 Testing of Research Hypotheses

The four hypotheses formulated for the study were tested.

Hypotheses 1 – Knowledge management enablers and knowledge management process capability will jointly and independently predict knowledge management performance.

Table 2. Showing multiple regression of knowledge management enablers and knowledge management process capability of knowledge management performance

Variable	F	P	R	R ²	Adj R ²	P	Remark
Management enabler and management process capability	17.068	.000	.455	.207	.195	.205	-2.562 .012
knowledge management performance						.458	5.713 000

Table 2 above shows that the linear combination effect of knowledge management enablers and knowledge management process capability on knowledge management performance was significant $F(2.13) = 17.068$; $R = .455$; $R^2 = .207$; $Adj R^2 = .195$; $P < .05$. The independent /fractor variables. Variables jointly accounted for a variation of about 21% in the knowledge management performance. The table also shows the various relative contributions and levels of significance of the independent variables. Knowledge management enablers ($\beta = .205$; $P < .0.5$). Knowledge management process capability ($\beta = .458$, $P (0.5)$ respectively.

The hypothesis that knowledge management enablers and knowledge management process capability will jointly and independently predict knowledge management performance is hereby accepted.

Hypothesis 2 – There will be a significant relationship between knowledge management enablers and knowledge management process capability.

Table 3. Showing multiple T. tests between knowledge management enablers and knowledge management process capability

Variable	Mean	Standard deviation	N	R	P	Remark
Knowledge management enabler	75.3507	3.9169				
Knowledge management Performance	109.5075	7.6775	134	.242**	.005	Sig.

** Sig at .01 level

Table 3 shows that there is a significant relationship between knowledge management enablers and knowledge management performance. ($r = .242^{**}$, $N = 134$, $P < .01$). The conclusion is that knowledge management enablers influence knowledge process capability hence the above hypothesis is accepted.

Hypothesis 3 – There will be a significant relationship between knowledge management performance and knowledge management process capability.

Table 4. Showing analysis of variance between knowledge management enablers and knowledge management process capability on knowledge management performance

Variable	Mean	Standard deviation	N	R	P	Remark
Knowledge management process capability	109.5075	7.6775				
Knowledge management performance	22.6866	2.6227	134	.409**	.000	Sig

** Sig. at .01 level

Table 4 above indicates that there is significant relationship between knowledge management performance and knowledge management process capability ($r = .409^{**}$, $N=134$, $P<01$). It can be concluded therefore, that knowledge management process capability has influence on knowledge management performance according to the result of the study hence the above hypothesis is accepted.

Hypothesis 4 – There will be main interaction effect of knowledge management enablers and knowledge management process capability on knowledge management performance.

Table 5. Showing main interaction effect of paired variables

ANOVA					
Source	Sum of Squares	DF	Mean square	F	Sig.
Main effect	4.460	3	1.487	.212	.888
Enabler	3.251	1	3.251	.464	.497
Process capability	1.319	1	1.319	.188	.665
2- Interactions					
Enabler x process capability	2.158	1	2.158	.308	.580
Explained	4.460	3	1.487	.212	.888
Residual	910.375	130	7.003		
Total	914.836	133			

4.7 Paired Sample Correlation

From table V above, it can be observed that there is no significant difference in the main effect of knowledge management enablers and knowledge management process capability. The interaction effect of knowledge management enablers and knowledge management process capability on knowledge management performance is also not significant $F(3,130) = 1.487$, $P < .05$. As there is no main interaction effect of knowledge management enablers and knowledge management process capability on knowledge management performance, the above hypothesis is therefore, rejected.

5. Concluding Remarks

The research concentrated on influence of knowledge management on knowledge performance in the banking industry in Nigeria using selected banks in Oyo town in Oyo state, Nigeria as case studies. From the result of the study it can be concluded that there is a significant relationship between knowledge management performance and knowledge management enablers, knowledge management process capability and that these variables can jointly and independently predict knowledge management performance. It can equally be concluded from the result of this study that knowledge management can become an effective and strategic instrument for achieving organizational objectives. Like Roos (1996) said ‘the only valid kind of knowledge management is self management’. And this can be achieved through organizational learning. Organizational learning according to Roos (1996) is best achieved when is inspirational, seeking out new impulses and ways to create value by “making good even better”. The overall conclusion from the result of this study is that organizations and their managers need to pay special attention to knowledge management if they want to compete effectively in contemporary business and environmental circumstances.

6. Recommendations

Based on the outcome of this study, it is recommended that;

- a) Organisations should pay special attention to the issue of knowledge management by ensuring complete awareness of the concept by all employees.
- b) Periodic training, workshops and seminars on knowledge management should be conducted for staff to ensure currency on the issue.
- c) The synergy highlighted and generated by knowledge management in the study between organisational enablers and knowledge management should be given due attention by management as a means of sustaining performance and profitability.

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