

KNOWLEDGE MANAGEMENT STRATEGIES AND SUSTAINABILITY OF COMMERCIAL BANKS IN MINNA

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Abstract

The shift from the industry-based economy to the knowledge-based economy has placed an importance on knowledge management for organizational sustainability. Hence this study explores the relationship between knowledge management strategies and sustainability of commercial banks in Minna based on the Hansen, Nohria and Tierney knowledge management model. Two research questions were addressed at 5% significant level. The survey research design was adopted with a structured questionnaire for data collection. The sampling frame contains the eighteen commercial banks with four-hundred and five staff. Random sampling method was adopted to select a sample size of 201 respondents. Descriptive and inferential statistics were employed for data analysis. The results reveal that a statistical significant relationship exists between the two strategies and sustainability, codification being dominant while personification is secondary. It is recommended that commercial banks in Minna should put in place facilities for IT and train all their staff on IT usage.

Keywords: Knowledge, Knowledge management, commercial banks, sustainability, strategies.

Introduction

The global economy in the past few years has witnessed gradual transition from industry-based environment that focused on physical assets to a high-technology, information and innovation-based environment that focuses on human assets. The major difference between these two environments lies in the nature and effect on sustainability (financial and non-financial performance) indices (Ekwe, 2012) which consequently has altered the pattern and structure of business activities (Ahangar, 2011) in the contemporary.

In the new economic system, that is, the knowledge economy, intellectual capital is the recognized principal resource for organizational and institutional sustainability (Frier and Williams, 2003) and therefore requires proper management. Knowledge Management (KM) is the ability to effectively manage and circulate tacit and explicit knowledge for usage within chosen organizations for more innovative performance (Riege, 2007; Paulin and Suneson, 2012) and enhanced sustainability. It involves the logical creation, application, assimilation and documentation of organizational knowledge (Vanini and Bochert, 2015). However, it has been very challenging to manage the organizational knowledge appropriately mostly due to the difficulties in the choice of strategy (Andrikpoulos, 2005; Nazari and Kerremans, 2007; Kim, Kim, & Miner, 2009).

Previous researches (see Ekwe, 2012; Maseki, 2012; Faisal, Khaldoun and Shaker, 2013; Onyema, 2014; Omotayo, 2015; Tahira, Muhammad and Syed, 2015; and Rasika and Ravindra, 2015) studied either the

impact, role or use of KM on commercial banks' performance but none seems to have considered the KM strategies and sustainability of commercial banks. The banking sector is very crucial to the performance of every economy. Despite the shift towards the knowledge economy, traditional accounting that focuses more on the physical assets has continued to be prevalent in the presentation of the financial statement to the exclusion of more important assets, the human capital (Armstrong, 2006). This has contributed to various crises experienced by many banks in recent times in Nigeria (Daniya, Adeyeye, Ndibe, 2016).

Thus, a gap exists since empirical evidence of the understanding and development of KM concepts in developing economies is still at its infant stage (Frier and Williams, 2003) hence the need for more studies. This study therefore investigates the KM strategies and commercial banks sustainability in Nigeria based on Hansen, Nohria and Tierney (199) model. In doing this, the following research questions were addressed:

1. Is there any relationship between codification strategy and sustainability of Commercial Banks?
2. To what extent has personalization strategy affected sustainability of Commercial Banks?

Literature review

Concept of Knowledge

Knowledge can be perceived as information in context (Pemberton and Stonehouse, 2000) that is, an intangible and specific resource (Wiklund and Shepherd, 2003), a unique source of value and

economic growth (van de Berg, 2013) that is found in human capital (Drucker, 1985). Whilst human capital is about knowledge acquired through education, experience and age an individual (Beccker, 2008) or involvement in any activities (Davidsson and Honig, 2003). It includes the knowledge and skills individuals possess when employed for a task (Lumpkin and Dess, 2001; McEvily and Chakravarthy, 2002). Banks are associated with specific human capital and quality of employees because of the high competitiveness of the sector and its significant contribution to the country economy. Employees' knowledge pilots the discovery and exploitation of new and possible opportunities and in forecasting more precisely, the feature and profit-oriented potential of the environment and suitability of the designed actions (Cohen and Levinthal, 1990) that will enhance sustainability.

There are divergence views on types of knowledge with varying influence on organizational sustainability. However, Gupta and Govindarajan (2000) argued that the conflicting epistemological, psychological and cultural categories can easily be distinguished as descriptive or explicit knowledge and tacit or perceptual knowledge. Explicit knowledge is about information that has been documented or can be shared with someone (Faisal et al. 2013). It is the 'know-about' knowledge and it is transferable from one person to the other formally and systematically in colleges, universities, conferences and so on. It is more dominant in the developed countries (Lesgold, 1988). This knowledge found expression in the educational and professional qualifications of the commercial banks employees.

Next, is the tacit knowledge, a perception about tangible and detailed experience (Audretsch and Thurik, 2000), acquired through practice but often difficult to vocalize, formalize and disseminate (Polanyi, 1983; Nonaka and Takeuchi, 1995). It is the 'know-how' knowledge which is highly personal and entrenched in actions, intuition or implicit rule-of-the-thumb (Thornhill, 2006; Nonaka et al., 2006) which makes formalization and transmission to be difficult (Thornhill, 2006). It is knowledge acquired through experience, trial and error from other related or unrelated commercial bank services that the employee brought into the bank employment. Tacit knowledge often shapes the ways opportunities are generally perceived in the world around them (Link and Siegel, 2007). Both explicit and tacit knowledge must be made available and accessible for usage by commercial banks in order to sustain the competitiveness in spite of the downsizing policy and high rate of staff turnover in search of greener pasture.

The Concept of Knowledge Management (KM)

The concept of knowledge management has generated considerable interest in business circle due to its ability to deliver strategic results relating to profitability, competitiveness and sustainability (Chua, 2009; Jeon, Kim and Koh, 2011). It is the logical process for discovering, creating, acquiring, sharing, and documenting individual or organizational knowledge in order to improve a company's competitiveness and sustainability (Alavi and Leidner, 2001; Argote, McEvily and Reagans, 2003). KM aims at making knowledge transfer to be effective inside an organization or network of organization (Paulin and Suneson, 2015) that even when the knowledgeable employee ceases to be a staff in the organization, the knowledge remains with the organization. It is identified as a framework for designing an organization's strategy, structures, and processes in order to use what it knows, to create economic and social value for its customers and community (Omotayo, 2015). Organizations need a good strategy to retain, develop, organize, and utilize their employees' knowledge and capabilities in order to remain at the forefront and have an edge over competitors. This concept is regarded as an important feature for organizational survival and continuity. Organizations that effectively share their knowledge within are likely to be more innovative and perform better (Riege, 2007).

Importance of Knowledge Management for organizational sustainability

The commercial banks tend to benefit and remain sustainable when knowledge asset is properly managed. KM helps in identifying and capturing the unstructured and unrecognised information in an organisation to become useful and useable (Toukara, 2013). It is an imperative instrument that enhances organisational performance and competitiveness. It is a management activity that preserves the existing and acquired knowledge for future usage by the organisation. It assists in the conversion of tacit knowledge into explicit knowledge for documentation. Therefore, banks who are neither customer familiar (Shane, 2000; Von Hippel and Katz, 2002), nor knowledgeable about meeting markets' demand may find it hard to identify solutions and develop any successful marketing approach (Wiklund and Shepherd, 2003) for sustainability. To buttress this point, Alvarez and Busenitz (2001) argued that waste arises through knowledge imperfection hence strategies are needed to avoid such scenario. Macpherson and Holt (2007) asserted that SMEs will grow only when entrepreneurs and their firms acquire necessary knowledge and learn to retain and use it.

Thus, knowledge is an integral building block for organisational sustainability but it is imperative to consider the appropriate strategy for KM.

The Hansen, Nohria and Tierney Model

The Hansen, Nohria and Tierney (1999) proposed a famous KM strategy model of codification and personalization as being relevant for knowledge-intensive businesses. However, the nature of business and the types of relationships or ties existing among the staff in the organizations when creating and sharing knowledge determines the choice of KM strategy (Hansen et al, 1999). The codification strategy allows large amounts of knowledge to be shared efficiently while the personalization strategy allows knowledge to be customized to the needs of the receiver (Boh, 2007) hence their complementary strengths. It is recommended that knowledge intensive organizations like banks can combine both codification and personalization but one must be a primary strategy while the other is made secondary, splitting at the ratio 4:1 (Hansen et al. 1999). Organizations that choose the codification strategy as dominant must invest extensively on IT for codification, storage and transfer of explicit knowledge within the organization, while a personalization strategy will require less IT investment as technology is only required to facilitate the use of social platform within the organization (Hansen et al, 1999). This model is suitable for this study since commercial banks are one of the knowledge-intensive businesses and thus, this study examines relationship between the strategies used for KM by commercial banks and sustainability in Nigeria.

Knowledge management strategies

KM strategies are set of options and actions to create, apply, assimilate and document (Vanini and Bochert, 2015) new knowledge from existing organizational knowledge for a competitive advantage. This study employs the Hansen, Nohria and Tierney (1999) KM strategy model to examine the dominant strategy employed by commercial banks in Minna and the relationship to their sustainability.

Codification is a strategy for collecting, applying, assimilating and documenting and storing of organizational knowledge (Vanini and Bochert, 2015 in the form of electronic document as repository for individuals or collective access (Hansen et al, 1999; Grover & Davenport, 2001; Hall, 2006; Greiner et al, 2007) for referential at the time of need. It is a *people-to-document approach* (Merono-Cerdan et al, 2007) that entails re-writing and sharing, guided by analysis grid and a set of methodological tools (Toukara, 2013) which tries to separate the knowledge from the

knower, thus allowing an easier transfer of knowledge (King, 2009). Codification is better utilized in settings where staff seldom have time to relate and knowledge can be re-used with high returns.

Personalization strategy focuses on the social approach (Hansen et al 1999) where knowledge is created and shared informally. Knowledge dissemination is done by enabling direct communication between people, consequently creating and supporting social networks platform among staff. It is a *people-to-people approach* (Merono-Cerdan et al, 2007). Personalization is efficient for fostering innovativeness and the creation of very specific problem solutions (Greiner et al 2007) identified in an organization. A company may favor one strategy over the other but both are needed at certain ratio (Merono-Cerdan et al, 2007) for effective implementation. In adopting personalization, employees who specialized in particular relevant field could head a relevant unit where the art of personalization would be imparted on others through the social media without formality. This helps in customers' retention and in turn boost customer's base for competitive advantage.

Commercial banks could set short and long term plans to increase and conserve the knowledge-base of the organization especially at this time of downsizing in the nation.

The concept of sustainability

A sustainable organization is an ethical and authenticable economic entity that develops the appropriate structures and plans to become capable of achieving the defined objectives at the economic, environmental and social levels and also ensure its continual growth through a rational resource allocation (Kotler and Caslione, 2009). The common indices of growth could be by rate of turnover, profitability, productivity, market share, number of employees (size) and/or net value of assets, customer base, new product launch success, and capacity building (Davidsson and Wiklund, 2000; Choi et al 2008). Sustainability will be measured by the customer base in this study.

Methodology

The study is carried out in Minna, Nigeria, a developing economy. Minna is located in the middle-belt of Nigeria, sharing the boundary with Abuja, the Federal Capital Territory. It is a state at the equilibrium of the nation with a representation of all the banks, people and sectors in the country. A more serene environment mediating between the hazards of the Northern and hassles of the Southern States of Nigeria. Hence, proved to be suitable sample for this

study. The study is quantitative in approach and adopted survey research design. A self-structured questionnaire adopted from previous literature (like Hadizadeh, 2013; Nawab et al. 2015) on five-point Likert scale was used to generate data to investigate the relationship between KM strategies adopted by commercial banks in Minna metropolis and sustainability in the competitive environment. To ensure the face and content validity of the research instrument, three experts in the field studied and offered appropriate suggestions which were carried out. For the reliability of the instrument, Cronbach Alpha's was used to test the items in the questionnaire. The coefficient result was 74.2% which is high enough to consider the instrument reliable for the study (Pallant, 2007). A pilot study was conducted on 9 banks with test-re-test result of Pearson-Moment Correlation coefficient was 80%.

The sampling frame consisted of 18 commercial banks in Minna metropolis, according to the web record which encompassed four hundred and five (405) staff members according to the Personnel Department record. Taro Yamane (Schultz) selection formulae was used to obtain the sample size. The random sampling method where everyone has the equal chance of being selected was employed to select the sample size of two hundred and one (201) staff, but only one-hundred and sixty-two (162) staff responded. Descriptive statistics, Pearson-Moment Correlations and Multiple regression analytical technique were used for analysis.

The dependent variable: Sustainability

Sustainability was measured with the customer base, that is, the number of new customers in the past three years as obtainable in some innovative studies (like

Hadizadeh, 2013; Nawab et al. 2015). That is, how many new customers do they have each year in the past 3 years (2014-2017)? Therefore, the numbers of new customers by a commercial bank were considered a useful measure of sustainability. Banks with not applicable (N/A) in any year are rated '0' while those with number(s) of new customers scored '1'.

Independent variables: KM strategies

The knowledge management strategies that were used are codification and personalization.

Codification strategy was measured with 10 items based on effectiveness of IT facilities, availability of data base for knowledge storage, the methods of documentation of expert's knowledge, means of acquisition, assimilation and storage of conference/training materials; means of conversion and storage of tacit knowledge. Respondents were at liberty to choose between the ranks of 5 to 1 with highest score 50 and least score 10.

Personalization strategy was measured with one-on-one knowledge sharing, change of seat (reshuffle), in-house training, brainstorming and sharing of tacit knowledge through interactions, use of web 2.0 technologies like wikis, flickr, youtube, Myspace, LinkedIn, facebook, twitter, blog. A total of 7 items were raised and respondents are at liberty to choose between the ranks of 5 to 1 with score range between 35 and 7.

Results and discussions

Descriptive statistics

This section describes the basic features of the 162 respondents of the 18 commercial banks' staff surveyed in Minna metropolis.

Table 1: Distribution of Respondents by Gender

Gender	Frequency	Percentage
Male	104	64.2
Female	58	35.8
Total	162	100

Source: Field work (2018)

Table 1 revealed that more male employees serve in the commercial banks than females. This is consistent with Ekwe's (2012) report that more males work in banking sector than females, perhaps due to the

tediousness and time consuming nature of bank work that females, especially the married, might find it difficult to combine it with their domestic responsibilities.

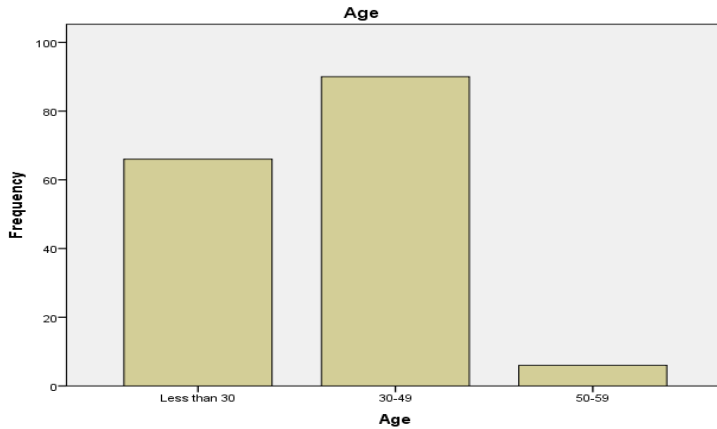


Figure 1: Distribution of Respondents by Age
Source: *Field work (2018)*

The mode age of respondents is within the range of 30 – 49 years (56%) and next was the less than 30 years (41%). This implies that majority of the employees in commercial banks are in the working class age, agile and dynamic. The creative energy of these age groups

is needed for KM strategy to foster competitiveness and survive the competitive market, which according to Falola et al (2012) has implications for productivity and sustainability.

Table 2: Distribution of Respondents by Level of Education

Education	Frequency	Percentage
No formal education	1	0.6
Secondary	5	3.1
Tertiary	156	96.3
Total	162	100

Source: *Field work (2018)*

Table 2 showed that 96% of the respondents have tertiary education, that is, a University degree or Higher National Diploma holders with the intellectual capital. A high level of explicit and possibly tacit knowledge are criteria for employability with banks

and crucial to KM strategies. It ensures staff have a stock of knowledge that cannot be ignored and are able to facilitate codification and personification of KM strategies for continual sustainability of commercial banks.

Table 3: Distribution of Respondents by number of years in the establishment

Number of years in the establishment	Frequency	Percentage
Less than 5 years	87	53.7
5-10 years	62	38.3
11-15 years	7	4.3
More than 15 years	6	3.7
Total	162	100

Source: *Field work (2017)*

Table 3 indicated that more than half of the employees have worked for less than 5 years; about two-fifth worked between 5 – 10 years while less than one-tenth have worked for 11 years and more. This is an indicator that employees do not stay long in commercial banks, resulting in high staff turnover and loss of knowledge acquired and assimilated. This can

be seen to be alarming because human assets are difficult to replicate, so they become the key competitive advantage for an organization in the intensive competition (Sanjeevkumar & Wang, 2012). In order to enhance sustainability, KM strategies must be understood and embedded in the organization's culture in order to avoid knowledge losses (Shechtman, 2008).

Pearson-Moment Correlation

Pearson-Moment Correlation attempts to establish the strength of relationship between bank sustainability and codification and personification.

Table 4: Pearson-Moment Correlation Coefficient Analysis Result

Variables	Coefficients
Sustainability	1
Codification strategy	.566**
Personalisation strategy	.521**

** , * correlation is significant at the 0.01 and 0.05 levels respectively (2-tailed test)

Source: *Field work (2017)*

Table 4 revealed that the two variables (codification and personalization strategies) have a strong and positive significant relationship with the sustainability of commercial banks’.

Regression model of the study

The regression analysis result showed the multiple effects of KM strategies on sustainability of commercial banks in Minna metropolis.

Model:

$$SU = \beta_0 + B_1C_s + B_2P_s + e \dots\dots\dots (Cohen, 2008)$$

Where; SU = Sustainability

C_s = Codification Strategy

P_s = Personalization Strategy

e = error term

β₀ = Constant

Table 6: Regression Analysis Result

Variables	Model
Constant	
Codification strategy	.414 (18.185)**
Personalisation strategy	.285 (14.102)**
R	.659 ^a
R Square	.434
Adjusted R Square	.423

**P < 0.01, * P < 0.05, t values in parenthesis.

Source: *Field work (2017)*

The above table indicated that this KM strategies model explains 42.3% of the variations in the sustainability of commercial banks while other variables outside this model explain 57.7%. The result shows that a unit change in codification strategy will bring about .414 change in the banks sustainability at P < 0.05. Also, a unit change in personalization strategy will bring about .285 change in the banks sustainability at P < 0.05. The result showed that the banks are aware of the KM strategies. The two variables are quite significant to commercial banks sustainability in Minna, metropolis. Codification strategy is the dominant strategy while personification is secondary. Bank employment in Nigeria is very demanding and time consuming that the social ties among staff are weak and little social interaction exist among them hence technology is the most utilized form of information creation and transfer, and

ultimately the use of a codification strategy should be maximized in view of the high rate of staff turnover. This was done by re-writing and sharing the knowledge internally during staff meetings, interactive forums, report from conferences or workshops attended, specific information event, daily report of work done and how it was carried out, with a deliberate act of documentation for preservation purpose using IT. This will, to an extent break the monopoly of knowledge as every staff have access to available knowledge. It will enhance bank service efficiency and attract more customers. The more knowledge that can be stored and re-used, the more possibility for innovation, the more the bank is able to perform better than others in the sector and be sustained. Technology is the most utilized form of information creation and transfer, and ultimately the use of a codification strategy became most

appropriate. However, it is important to develop social groups such as “communities of practice”, where the use of the personalization strategy as secondary would best complement this type of knowledge transfer and sharing. Staff should be encouraged to use social media platform for knowledge sharing, assimilation and storage. The IT staff will create, convert, extract, assimilate and store vital information from the social media and transform them into knowledge for the repository. The successes and failures of KM within organizations is the identification of resources that allow organizations to recognize, create, transform and distribute knowledge. The best practice is for all the bank employees to be IT trained.

Conclusion

The study examined the relationship between knowledge management strategies and sustainability in the context of 18 Commercial Banks in Minna metropolis. The study revealed that a significant relationship subsisted between KM strategies and commercial banks sustainability. Codification strategy is the dominant strategy while personification is secondary. Bank employment in Nigeria is very challenging and time consuming that there is weak social ties among the employees with little social interaction. Use of technology is the most utilized for information creation and transfer, and ultimately the codification strategy should be maximized in view of the high rate of staff turnover.

Recommendations

Sequel to the research findings, the following recommendations were made:

1. Commercial Banks should deliberately pay more attention to KM strategies and embed it in the organization's culture.
2. The IT department should be upgraded for KM, all staff should be IT literate as well as organize training and re-training to facilitate codification of knowledge regularly.
3. Staff should be enrolled on communities of practice of organizational social media at the point of entry to enhance personalization of knowledge.
4. Staff that are actively involved in KM strategies should be given incentives to reducing staff turnover.
5. There should be regular in-house capacity building programs like training, conferences, workshop and seminars to enhance knowledge sharing and transfer to discourage monopoly of knowledge.

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