

Knowledge Management and Organizational Performance of Mobile Service Firms in Nigeria: A Proposed Framework

Bashir Danlami Sarkindaji^{1*} Noor Azmi Bin Hashim¹ Aliyu Olayemi Abdullateef²

1. College of Business, Universiti Utara, Malaysia, 06010 Sintok, Kedah

2. Faculty of Business and Design, Swinburne University of Technology Sarawak Campus, Malaysia

*bashirsdaji77@yahoo.com

Abstract

Over the years, knowledge management has become a major strategic necessity that organizations require to succeed in the global business atmosphere. Knowledge as one of the most vital assets of all corporate organizations must be effectively identified, acquired, stored, shared and implemented in the most profitable way that could achieve sustainable competitive advantage. This study reviews the concepts of knowledge management and organizational performance and proposes a model for further research in the area of knowledge management on performance of mobile service firms in Nigeria. The study envisages that the effect of knowledge management dimensions on organizational performance of mobile service firms in Nigeria could be mediated by technological innovation in the industry. Hence, it is recommended that mobile operators should develop and implement strategic knowledge management policy proficient to providing appropriate organizational knowledge that satisfies changing customers' needs and preferences.

Keywords: Knowledge, Management, Innovation, Performance, Strategy

1.0 Introduction

To date, knowledge is one of the most vital assets that guaranteed the survival of firms in the fiercely competitive business environment. The emergence of knowledge-based economy has made it a strategic necessity for businesses to initiate ways to effectively acquire and manage varying organizational knowledge. Knowledge when produced and disseminated all over the organization has the capability to contribute to the firm's value (Choi et al., 2006). Ineffectiveness in managing knowledge makes the knowledge irrelevant and not useful for organizations (Yusof & Abu Bakar, 2012). Hence, knowledge management (KM) is considered to be an urgent and critical issue, to such an extent that organizations must efficiently manage their knowledge bases and repositories to earn long-term competitive advantage (Alabi & Leidner, 1999; Devenport & Prusak, 1998). The application of KM strategy offers firms with active potentials for enhancing knowledge quality and for consolidating the value and applicability of knowledge (Spender & Grant, 1996).

Due to the imperative nature of knowledge, scholars and practitioners have reported KM adoption as being widely recognised and practised in diverse industry and established to a large extent it's significant in terms of organizational performance (Yang et al., 2014; Tseng, 2014; Gholami et al., 2013; Suraj & Ajiferuke, 2013; Zwain et al., 2012; Yang, 2010; Fugate et al., 2009). Still, there is a dearth of research into KM, its nature and complexities, especially with respect to subsequent organizational outcomes (Tseng, 2014; Kiessling et al., 2009). It has become an essential issue for businesses to comprehend in what manner KM would be employ to instigate, improve, and sustain customer relationships, and increased firm performance.

Although, Nigerian mobile service firms are acquainted with the concept of KM practices (Suraj & Ajiferuke, 2013; Suraj & Bontis, 2012), not many efforts have been made to examine the relationship between KM and organizational performance and that over-stressing on customer asset to the detriment of other intellectual asset elements, such as KM asset, human asset, and structural asset is instituted to be undermining the performance of mobile service firms in Nigeria (Suraj & Bontis, 2012). Similarly, Ajaikaiye and Olusola (2003) reported that the attention given to Nigeria's KM system has been weak and unstable, and has consequently affected its effectiveness and utilization. The task is for organizations and states to establish and work out organizational practices, principles, guidelines, and approaches on how knowledge can be effectively managed, and spread among government agencies, research communities, and the public (Riley, 2003). Specifically, Nigeria ought to set up a KM system that takes into consideration the multidimensional perspective (Nwafor & Salau, 2009). This study proposes a conceptual model to investigate the effect of KM on Nigeria's mobile service firms' performance with a view to identify how KM strategy could help enhance productivity and competitive advantage.

2.0 Literature Review

2.1 What Constitute Knowledge Management?

Due to complexities in the nature of the composition of knowledge, scholars and practitioners have made several attempts to come up with varying definitions of KM. Surprisingly, "no single definition can explain the whole picture, as different authors viewed knowledge management from a number of perspectives, which dictates the

way they define it” (Zwain et al., 2012, pp. 276). Knowledge is a key competitive strategy that businesses must manage in their quest to achieving sustainable competitive advantage. Quite a number of terminologies and models have been used in an effort to define the concept. For example, some scholars conceived KM as a discipline (Krubu & Krub, 2011); systematic management of tacit knowledge (Bhatti & Qureshi, 2007; Zack, 2002) and explicit knowledge (Bhatti & Qureshi, 2007). Others view it as management strategy aimed at developing, transferring, transmitting, storing, and implementing knowledge to enhance competency and efficiency of organizational employees (Dahiya et al., 2012). It is considered as valuable processes that impact organizational performance in different segments (Chang & Lee, 2008). Similarly, researchers have defined KM as a business strategy that creates, accumulate, organize and utilize knowledge to enhance organizational performance (David & Wendy, 2009). Drawing from the series of definitions, this study concludes KM as an organizational philosophy whose main objective is to attain long term sustainable competitive advantage through its capability to create, acquire, share and utilise new and potential knowledge.

Previous studies have used different dimensions to propose a conceptual view of KM application in their models. Yusof and Abu Bakar (2012) however, put forward that there are no universally agreed dimensions of KM. Table 1 shows the different classification of KM dimensions by authors.

Table 1. Review of Previous Studies Dimensions of Knowledge Management

Authors	Knowledge Management Dimensions
Dahiya et al. (2012)	Developing, transferring, transmitting, storing, and implementing
Omerzel (2010)	Acquisition, storage, transfer, use and measurement of effect
Kiessling et al. (2009)	Identification, collection, organizing, storage, sharing, and evaluation
Fong & Choi (2009)	Acquisition, creation, storage, distribution, use and maintaining.
Liao & Wu (2009)	Acquisition, conversion and application.
Zack et al. (2009)	Locate and share existing knowledge, experiment and create new knowledge, culture of knowledge creation and sharing, and strategic value of knowledge and learning.
Adedoyin et al. (2008)	Creation, storage, manipulation and communication responsiveness, acquisition, dissemination
Chen & Mohammed (2008)	Responsiveness, acquisition, dissemination and utilization
Chin Loy et al. (2007)	Creation, capture, organization, storage, dissemination and application
Lee, Lee & Kang, (2005)	Creation, accumulation, sharing, utilization, and internalization
Kalling (2003)	Development, utilization, and capitalization
Gold et al. (2001)	Acquisition, conversion, application, and protection
Skyrme (2001)	Creation, organisation, diffusion, use and exploitation
Lee & Yang (2000)	Acquisition, innovation, protection, integration, and dissemination
Nissen et al. (2000)	Creation, organization, formalization, distribution, application or implementation, and evolution
Wiig et al. (1997)	Reviewing, analyzing process, analyzing risks, executing plans, developing, consolidating, sharing, and combining

Based on prior researches, KM literature have focused and concentrated mostly on five dimensions namely: identification, acquisition, storage, sharing, and application (Ghalomi et al., 2012; Kiessling et al., 2009; Liao & Wu, 2009; Daud & Abdul Hamid, 2006; Gold et al., 2001; Lee & Yang, 2000). These dimensions have incorporated all processes involved in the KM strategy adoption. Hence, this study adapted a model with five dimensions in line with popular opinion of scholars.

2.2 Knowledge Management and Mobile Service Firms in Nigeria

Nigerian mobile service industry is one of the fastest growing and most highly competitive in Africa (Nigerian Communications Commission, 2012), yet the sector suffers most from extreme subscriber dissatisfactions (Abayomi, 2011) and disloyalty (Adeleke & Aminu, 2012). Differentiation in products or services can be accomplished with efficiency of knowledge utilization and its sustained creation (Maruta, 2014). Thus, necessitated the need for firms to identify and manage organizational knowledge effectively in order to satisfy changing customer needs and preferences.

Within the mobile service sector, Suraj and Ajiferuke (2013) investigated how operators influence knowledge in attaining both performance and competitive advantage. Their results established weak human capital management and absence of effective communication as nuisance to organizational resource management. They argued that majority of mobile service firms in Nigeria are familiar with the concept of KM. Yet, the interest conferred to Nigeria’s KM practices is insubstantial and unsteady, and has consequently influenced its

efficiency and utilization (Ajakaiye & Olusola, 2003). Nigerian organizations are obliged to institute a KM practice that considers the multidimensional perspective (Nwafor & Salau, 2009). Suraj and Bontis (2012) found that over-stressing on customer asset to the detriment of other intellectual asset elements, such as KM asset, human asset, and structural asset is instituted to be undermining the performance of mobile service firms in Nigeria.

2.3 What Constitute Organizational Performance?

There are no unanimously agreed measures of organizational performance among scholars and practitioners (Ghalomi et al., 2012). Prior studies have measured organizational performance in term of multidimensional construct i.e. financial and non-financial measures (Ghalomi et al., 2012; López-Nicolás et al., 2011). López-Nicolás et al. (2011) emphasised that organizational performance must be enhance for KM programs to be effective. Hence, it is necessary assessing KM strategy impact on organizational performance (Yang, 2010; Tseng, 2008). Several studies have examined the influence of KM application using diverse measures of corporate performance (McKeen, Zack, & Singh, 2006). Table 2 shows the different measures of organizational performance by authors.

Table 2. Review of Previous Studies Measures of Organizational Performance

Authors	Organizational Performance Measures
López-Nicolás et al. (2011)	Financial/market performance (profitability, growth and customer satisfaction); process performance (quality and efficiency); internal performance, individual capabilities (employees' qualification, satisfaction/creativity).
Vaccaro et al. (2010)	Cost and profitability
Ellinger et al. (2000)	Profitability, sales growth, and overall customer satisfaction
Baker & Sinkula (1999)	Overall performance, new product success, change in relative market share
Deshpande et al. (1993)	Sales growth, market share and profitability
Jaworski & Kohli (1993)	Market share and overall performance
Naver & Slater (1990)	Return on assets, sales growth, new product success
Venkatraman & Ramanujam (1986)	Financial measures (return on equity, return on investment) and operational measures (market share, sales growth, and, profit growth)
Thomas & Keithley (2002)	Improving its ability to attract, train, develop, and retain employee
Sher & Lee, (2004)	Operating costs, shorten lead-time, and differentiate products
Wu & Lin, (2009)	Improving coordination efforts
Storey & Kahn (2010)	Developing new services

Venkatraman and Ramanujam (1986) established that financial and operational measures were the most often used measures of organizational performance. Therefore, KM application should link together financial and nonfinancial measures (Tseng, 2008; Wu & Lin, 2009), since diverse dimensions of performance are affected by KM strategy. Existing literature in the field, however, does not provide a clear model about the real impact of KM on performance (Choi et al., 2008). Hence, this study proposed that the effect of KM practice on organizational performance would be better enhanced using diverse measures of organizational performance. Measures of profitability, sales growth and market share will be used to determine performance.

2.4 Knowledge Management and Organizational Performance

The relationship between KM and organizational performance has been investigated by a large number of researchers in different sectors, such as education (Zwain et al., 2012), construction (Yusof & Abu Bakar, 2012), SMEs (Gholami et al., 2013), high tech (Yang et al., 2014; Yang, 2010), telecommunication (Suraj & Ajiferuke, 2013), and supplier relationship (Tseng, 2014). For instance, in a study of companies in Croatia, Kiessling et al. (2009) proposed that KM positively affects organizational outcomes of firm innovation, product improvement and employee improvement. Though, their model shows insignificant results between employee knowledge-based capability and organizational outcomes. Tseng (2014) examined the relationship between KM capability, supplier-relationship management and corporate performance. The study established that KM capability has significant positive effect on corporate performance, as supplier-relationship management partially mediates amongst KM capability and corporate performance.

Ghalomi et al. (2012) examined 282 senior managers of SMEs using SEM analysis. Their findings disclosed that knowledge acquisition, storage, creation, sharing, and implementation are positively related to organizational performance. Hence, they suggested that KM adoption directly impact on the performance of SMEs. Similarly, within the Taiwanese high tech industry, Yang et al. (2014) found that customer KM influences organizational performance through project performance. They established that achieving significant

positive relationship amongst customer KM and project performance depends on data complexity. Effective customer KM greatly assists organizations to build sound customer relationships that will significantly impact on customer satisfaction and overall performance (Abdullateef et al., 2010).

Furthermore, Yueh et al. (2010) lamented that the presence of today's worldwide marketing problems resulted from poor information handling, and that organizations can only survive competition when they have perfect knowledge about market situations and investigate, and make judicious use of their present customer knowledge (Mohammed & Rashid, 2012). Using a logistics operations context, Fugate et al. (2009) supported a significant positive relationship amongst KM process and operational and organizational performance. Precisely, their outcomes showed that KM when communicated among operational employee mediates how knowledge is distributed as well as used to plan and apply a united operational reaction to that knowledge. Organizations as they strive to identify and understand current and potential knowledge availing the business environment give it an edge over competitors.

2.5 Knowledge Management, Technology Innovation and Organizational Performance

Using profile deviation analysis, Chen and Huang (2011) found that KM strategy and information technology strategy have significant effect on organizational performance. They stressed that information technology management (ITM) must be aligned with sound KM practices to achieve organizational outcomes. de Burca et al. (2006) affirmed that a firm's IT sophistication has contingent effect on performance. The results also found that a firm's IT maturity affects its capabilities to obtain and use organizational knowledge.

Yang et al. (2012) established the mediating effects of KM application on IT adoption and project performance in terms of schedule and cost success as well as quality and safety performance. They maintained that greater levels of KM results in project outcomes. Nkoyo et al. (2011) in a study to explore strategies for effective KM in Nigerian university libraries established human resource development, provision of ICT infrastructure, and capacity building in ICT to be the highest ranked strategies. They stressed that the application of these strategies would make Nigerian universities to be competitive in the global academic community.

2.6 Conceptual Framework

From the review of existing literature, this study proposed three main variables of interest comprising of dependent, independent and intervening variables. The major focus of this study is organizational performance (i.e. dependent variable) which is determined by profitability, sales growth and market share. The predictor variable (i.e. independent variable) that may interact to influence the criterion variable is KM. This variable is measured by five dimensions comprising of knowledge identification, knowledge acquisition, knowledge storage, knowledge sharing, and knowledge implementation, based on prior studies, that have focused and concentrated mostly on these dimensions (Kiessling et al., 2009; Liao & Wu, 2009; Gold et al., 2001; Lee & Yang, 2000). Knowledge identification as first phase in organizational KM adoption, describes all the necessary requirements connected to evaluating core capabilities, recognizing strategic competencies, and determines the expertise level for each knowledge area (Zwain et al., 2012). Identifying knowledge gap is essential for employee's daily work success (Sarawanawong et al., 2009). Knowledge Acquisition incorporates "the process of acquiring and learning appropriate knowledge from various internal and external resources, such as experiences, experts, relevant documents, plans and so forth. Interviewing, laddering, process mapping, concept mapping, observing, educating and training are the most familiar techniques for knowledge acquisition" (Ghalomi et al., 2012, pp. 207). Knowledge storage involves the use of technological systems i.e. modern informational hardware/software and human procedures to classify organizational knowledge, then to code and index the knowledge for future recovery (Karadsheh et al., 2009). Knowledge sharing is a process through which personal and organizational knowledge is exchanged (Ghalomi et al., 2012).

One of the greatest challenges that KM organizations faced is implementation. It is one thing for knowledge to be identified, acquired and stored and a different thing to be appropriately applied in the right direction to achieve desired result. Studies have considered knowledge implementation to denote 'actual utilization' of the knowledge (Liao & Wu, 2009; Asoh et al., 2007; Lee et al., 2005). It is a decision involving the use of knowledge to enhance organizational performance and goals attainment (Ghalomi et al. 2012, pp. 208), and should be applied at various levels or divisions in organizations.

Furthermore, the conceptual model of this study will be accentuated by resource-based view (RBV) as its envisaged underpinning theory. The philosophy of RBV theory sees knowledge as a crucial organizational resource that when properly utilise results in higher performance (Yusof & Abu Bakar, 2012). The relationships between the study variables i.e. criterion, predictor and intervening variables are shown in figure 1 below. Hence, the study proposed the following hypotheses:

H₁: Knowledge management significantly influence the performance of mobile service firms in Nigeria

H₂: There is a significant relationship between each of the dimensions of knowledge management and performance of mobile service firms in Nigeria

H₃: Information technology significantly mediates the relationship between knowledge management dimensions and performance of mobile service firms in Nigeria

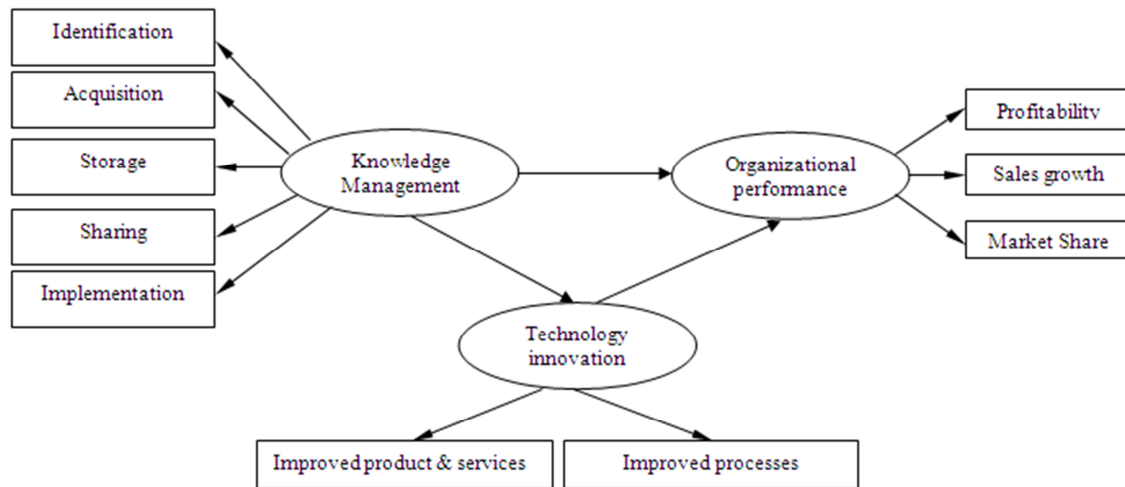


Figure 1. Conceptual Model

3.0 Conclusion

It is obvious that organizations in their pursuit for sustainable competitive advantage must develop and incorporate sound KM strategy. Knowledge as one of the most critical resource of all corporate organizations needs to be properly managed to survive in the intensely competitive business environment. Globally, every organization irrespective of whether private or public are established to attain some performance targets i.e. profit or non-profit. One of the ways through which organizations could improve their performance goals is through KM practices. For KM programs to be effective organizational performance must be improved. The mobile services industry today, is one of the fastest growing and most competitive and the service providers are faced with the challenges of changing customer needs and preferences due to knowledge and innovation. Hence, to perform organizations need to identify and manage new and potential knowledge availing the business community. Although, prior researches have established a significant positive relationship between KM, technology innovation and organizational performance in different industry, this study will contribute to the dearth of empirical researches on these areas specifically in the Nigeria's mobile service sector. It will also provide an opportunity for further studies to proffer strategic KM options that will help service operators in Nigeria to maximise their performance targets.

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