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## Effect of Knowledge Management on Firm Performance in Commercial Banks in Nakuru, Eldoret And Kisumu

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### Abstract

The study is set out to assess the effect of knowledge management on firm performance, Resource-based view will inform the study. The study will employ explanatory research design. Target population will be a census 133 bank branch managers within the three towns; Nakuru, Eldoret and Kisumu. Five point Likert scale structured questionnaire will be formulated for data collection. Data collected will be analyzed quantitatively through the use of descriptive statistics and multiple regression models. We found that knowledge acquisition knowledge conversion knowledge application and knowledge protection had a positive and significant effect on firm performance. The study concludes that knowledge management very crucial for firm performance. There is also need for firms to have processes for exchanging knowledge between individuals, business partners and supplier. There is also need for the firms to have a process for distributing knowledge throughout the organization so as to enhance the design of new products/services. There is need for a process that matches sources of knowledge to problems and challenges so as to enhance the development of new products/services. Firms need to have processes that protect knowledge from theft within the organization need to be implemented.

Keywords: Knowledge Acquisition Knowledge Conversion Knowledge Application and Knowledge Protection

### 1.0 Introduction

Many firms consider that to act with efficacy in today's economy, it is imperative for them to become a knowledge-based organization. In this global economy knowledge is the King (Garud and Kumaraswamy, 2002), and maybe that is the biggest competitive advantage of them all (Davenport and Prusak, 2000). The "new economy" is driven by knowledge (UKDTI, 1998a; UKDTI, 1998b), based upon knowledge (Sirois, 1999), and it is moved by knowledge (Wenger and Snyder, 2001). Its main output knowledge is intangible (Wenger and Snyder, 2001); it is the economy of the intangibles (Stewart, 1997).

A firm's performance and survival are determined by the speed at which the firm develops knowledge-based competencies. Knowledge and intellectual capital are considered among the firm's knowledge-based competencies and, according to Bell (1973) and Nonaka (1994), the major competitive advantage of a firm lies in its knowledge. Firms competing in the knowledge-based economy can sustain their competitive advantage by harnessing their own unique knowledge and building their capability to learn faster than their competitors (Grant, 1996b; Prusak, 2001). Competitive capacity of organization can be increased by building strong people and effectively managing and developing people (Cabrera & Banache, 1999) which is in essence performance management.

Organizations develop knowledge management capabilities to help support a range of vital operational and innovative activities. The interest in organizational capabilities has created a focus on the development and implementation of knowledge management processes and infrastructure required to support daily work practices. Different resources make up the knowledge capability of a firm. These include technology infrastructure, organizational structure and organizational culture which are linked to a firm's knowledge infrastructure capability; and knowledge acquisition, knowledge conversion, knowledge application and knowledge protection which are linked to the firm's knowledge process capability (Alavi and Leidner, 2001; Emadzade et al. 2012; Gold et al., 2001). Taken together, these resources determine the knowledge management capability of a firm, which in turn has been linked to various measures of organizational performance (Grant, 1996; Gold et al., 2001; Lee and Sukoco, 2007; Zack et al., 2009). Thus knowledge-based competition will be critical for organizational success in the coming years (DeNisi et al., 2003).

### 1.1 Problem formulation

Knowledge management is explicit and systematic management of vital knowledge and its associated processes of creation, organization, diffusion, use and exploitation. Organizations are discovering that they need to improve their performance through better valuing of knowledge in order to stay ahead of their competition

(Liebowitz and Beckman, 1998). Changing business environment has created need for the effective and efficient knowledge management. Kenya cannot lag behind in this knowledge revolution hence many Kenyan companies have started their knowledge management programs (Teece, 2000). Effective knowledge management is a worthwhile activity for managers to emphasize. For managers to encourage the development of knowledge management behaviors and practices, they need evidence that firm performance will be enhanced as a consequence (Darroch, 2005).

Knowledge management has attracted significant attention from researchers and practitioners as a facilitator of firm performance. Even though companies have implemented knowledge management, they offer inconsistent support that knowledge management enhances firm performance and relevant empirical research has yet to produce satisfactory evidences on the nature of the relationship between knowledge management and firm performance (Seleim and Khalil, 2011). Thus, the need for the study The study plays a vital role in which various knowledge management practices influenced firm performance. The study is significant in that the results provided managers and leaders with insight into how knowledge management enhanced firm performance.

## **Literature Review**

### **Concept of Firm Performance**

Firm performance refers to ability of an enterprise to achieve such objectives as high profit, quality product, large market share, good financial results, and survival at pre-determined time using relevant strategy for action (Koontz and Donnell, 1993). McCloy, Campbell and Cudeck, (1994) as cited in Sheu Fais and Husna (2012) defined the term performance as those behaviours or actions which are regarded relevant to those goals of the said organization in question. Over the years, a number of techniques have been developed and applied to measure firm performance, each of which has a substantial amount of literature associated with it as well as a number of studies demonstrating its effectiveness. Most surveys of firm performance have used the approach of aggregating financial and non-financial measures (Choi and Lee, 2003; Kaplan and Norton, 1992; Lee and Choi, 2003). The financial and nonfinancial outcomes are distinct constructs with regard to the impact of KM (Simonin, 1997). The most popular measurement of this type is the balanced scorecard (Kaplan and Norton, 1992), which emphasises the need to achieve a balance between the use of financial and non-financial measures to achieve strategic alignment. The balanced scorecard complements the traditional financial measures with operational measures on three perspectives namely the customers, internal business processes, and the organisation's learning and growth activities (Kaplan and Norton, 1992, 1996a, b). Financial performance was measured in terms of profitability and growth (Venkatraman, 1989). The growth dimension reflects the performance trends of the business in terms of sales gains and market share gains, that is, effectiveness, while the profitability dimension reflects an efficiency view of current performance. These indicators reflect both long-term (growth) and short-term (profitability) characteristics of performance (Ramanujam and Venkatraman, 1988).

### **Concept of knowledge management**

Knowledge Management has emerged as one of the most important area in management practices and established as a basic resource for firms and economies. Knowledge management is regarded as collection, distribution and efficient use of knowledge resources. It is a process of knowledge creation, validation, presentation, distribution and evaluation. Knowledge management according to Bounfour (2003) is a set of procedures, infrastructures and technical and managerial tools, designed towards creating, sharing, leveraging information and knowledge within and across organizations. Knowledge Management is a systematic and integrative process of coordinating organization wide activities of acquiring, creating, storing, sharing, diffusing and deploying knowledge by individuals and groups, in pursuit of organizational goals. Gold et al. (2001) identified key aspects to knowledge management process; knowledge capturing, transfer, and use; acquire, collaborate, integrate, experiment; create, transfer assemble, integrate, and exploit; create, transfer, use; and create, process. Examination of these various aspects can be grouped into four broad dimensions of process capability: acquiring knowledge, converting it into useful form, applying or using it and protecting it.

### **Knowledge acquisition on firm's performance**

Knowledge acquisition is improved use of existing knowledge and effectively producing new knowledge through active conversation and externalized and distributed as new knowledge (Choo and Bontis 2002; Hung et al. 2006; Lawson 2003). Some examples of knowledge acquisition include conducting an external survey, acquiring a knowledge rich firm, sending employees to external training, hiring an employee, purchasing a data

set, monitoring technological advances, purchasing a patented process, and gathering knowledge through competitive intelligence (Holsapple and Singh, 2001).

It is enabled by the processes and activities of interaction, feedback, innovation, brainstorming, and benchmarking. Some examples of knowledge acquisition include conducting an external survey, acquiring a knowledge rich firm, sending employees to external training, hiring an employee, purchasing a data set, monitoring technological advances, purchasing a patented process, and gathering knowledge through competitive intelligence (Holsapple and Singh, 2001). It is captured by six factors: valuing employees attitudes and opinions and encouraging employees to up-skill; having a well-developed financial reporting system; being market focused by actively obtaining customer and industry information; being sensitive to information about changes in the marketplace; employing and retaining a large number of people trained in science, engineering or math; working in partnership with international customers; and getting information from market surveys. Based on the above the study hypothesized that:

H<sub>01</sub>: Knowledge acquisition has no significant on firm performance

### **Knowledge conversion on firm performance**

Knowledge conversion refers to the process within knowledge management that makes current knowledge useful. Knowledge conversion is made possible through the processes and activities of synthesis, refinement, integration, combination, coordination, distribution, and restructuring of knowledge. This process enables a firm to make individual knowledge useful to the firm by converting individual knowledge into firm knowledge. One of the mechanisms is through the four phases that have been proposed by Nonaka and Takeuchi (1995) which are socialisation, externalisation, combination, and internalisation. These processes also allow the firm to replace knowledge that has become outdated.

Conversion oriented KM processes are those oriented toward making existing knowledge useful. Some of the processes that enable knowledge conversion are the firm's ability to organize, integrate, combine, structure, coordinate, or distribute knowledge. An organization must develop a framework for organizing or structuring its knowledge since without common representation standards, no consistency or common dialogue of knowledge would exist. According to Gold et al. (2001), a primary goal of any organization should be to integrate specialized knowledge of many individuals. Four commonly cited mechanisms for facilitating integration are rules and directives, sequencing, routines, and group problem-solving and decision-making.

H<sub>02</sub>: Knowledge conversion has no significant on firm performance

### **Knowledge Application on Firm's Performance**

Knowledge application refers to the degree to which the firm applies the knowledge resources that are shared across functional boundaries. Knowledge application concerns with how to utilize knowledge in order to produce commercial value since knowledge can only be realized when it is applied to solve problems. As stated by Bhatt (2001), applying and sharing knowledge means making it "more active and relevant for the organization in creating values". Knowledge that an employee fails to share is of little value to an organization.

Knowledge application involves storage, retrieval, application and sharing. Effective storage and retrieval mechanisms enable a firm to quickly access knowledge. Davenport and Klahr (1998) noted that the effective application of knowledge has helped firms to improve their efficiency and reduce costs. Knowledge application also helps a firm to enhance its business performance by having up-to-date information and knowledge. For knowledge to impact organizational performance it has to be used to support the firm's processes. Hence, it is through knowledge utilization that acquired knowledge can be transformed from being a potential capability into a realized and dynamic capability that impacts organizational performance (Cohen and Levinthal, 1990; Seleim and Khalil, 2007; Zahra and George, 2002).

It is concerned with how to utilize knowledge in order to produce commercial value since knowledge can only be realized when it is applied to solve problems. Knowledge processes associated with the application of knowledge include storage (Holsapple and Singh, 2001); retrieval (Holsapple and Singh, 2001); application (Gold et al., 2001; O'Dell and Grayson, 1998b); and sharing (Gold et al., 2001; O'Dell and Grayson, 1998b; Tiwana, 2002). Effective storage and retrieval mechanisms enable a firm to quickly access knowledge. Davenport and Klahr (1998) noted that the effective application of knowledge has helped firms to improve their efficiency and reduce costs. Knowledge application also helps a firm to enhance its business performance by having up-to-date information and knowledge.

H<sub>03</sub>: knowledge application has no significant on firm performance

### **Knowledge protection on firm performance**

Protection of knowledge asset is an essential task in the organization's knowledge management implementation. Security is always the major concern in any organization's management information systems. Protecting corporate knowledge requires clear but detailed policies to ensure the knowledge asset is in its safe state at all times. Knowledge protection is necessary for effective functioning and control within organizations. This would typically include the use of copyright and patents along with information technology systems that allow knowledge to be secured by filename, user name, password and file-sharing protocols that ascribe rights to authorized users (Lee and Yang, 2000).

For a resource to confer competitiveness to a firm and result in superior performance, it has to be valuable, rare, inimitable and non-substitutable. This resource must be protected. However, though knowledge protection can be effected through IT systems and other physical means, it should be recognized that a very significant amount of organizational knowledge resides in the employees in which case softer methods of protecting this knowledge through employee incentives that govern the behavior and conduct of employees should be implemented as well. Protection is vital if the knowledge is to be used to generate or preserve a competitive advantage. The enterprises need to assure their organizational knowledge is kept safely and accessed only by authorized personnel. However, knowledge protection is often challenging in part because the copyright laws that are intended to protect knowledge are limited in their treatment of the knowledge environment (Everard, 2001). Notwithstanding such limitations, the knowledge protection process should not be abandoned or marginalized (Gold et al., 2001) and protecting knowledge from illegal and inappropriate use is essential for a firm to establish and maintain a competitive advantage (Liebeskind, 1996).

### **Theoretical framework**

The study was guided by resource-based theory developed by Barney (1991). Since Knowledge based resource are "the essence of resource based perspective", (conner and prahalad 1996 p477). According to resource-based views, firms performed well and created value when they implemented strategies that exploited their internal resources and capabilities. The theory suggests that knowledge is the organizational asset that enables sustainable competitive advantage in hyper-competitive environments. Resource-based theorists consider intellectual capital to be a firm's strategic resource. Knowledge management processes, including knowledge acquisition, knowledge conversion and knowledge application, were used in the study to manage and increase social capital, to enhance firm performance and to sustain competitive advantages. The knowledge-based view of the firm considers knowledge as the most strategically significant resource of the firm (Desouza and Awazu (2006). This view considers a firm to be a "distributed knowledge system" composed of knowledge-holding employees, and this view holds that the firm's role is to coordinate the work of those employees so that they can create knowledge and value for the firm (Thorburn (2000). Thus the theory of resource based is deemed suitable in studying on knowledge management on firm performance moderated by organizational culture

### **Methodology**

The study adopted the explanatory research design. Orodho (2003) explanatory research design analyzed the cause-effect relationship between two or more variables. The target population under the study was 133 bank branch managers working for various commercial banks in the western part Kenya, specifically Eldoret with 38 branches, Kisumu with 38 branches and Nakuru with 57 branches (CBK, 2012). The study conducted a census survey on target population of commercial bank's branch managers within the three towns. Structured questionnaires will be used to collect data from dependent and independent variables. Five point Likert scales will be used as a measurement level of the variables.

### **Measurement of Variables**

knowledge acquisition was measured using 11 items adapted from Gold et al (2001) using five point Likert scale varying 1 "strongly disagree to" 5 strongly agree, Knowledge conversation was measured using 7 items under five point Likert scale adapted from Gold et al (2001), Knowledge application was measured using 12 items under-fives point Likert scale adapted from Gold et al (2001), Knowledge protection was measured using 10 items under-fives point Likert scale adapted from Gold et al (2001) and moderating role of organization culture was measured using 6 items adapted from ehtesham et al., (2011) while firm performance was measured using 6 items adapted Gold et al (2001)

### Data Analysis

Multiple regression model was used to analyze data in order to determine the hypotheses for the study. Collected data was checked for possible violations of regression assumptions with the help of SPSS software tool. Descriptive analysis was also used to classify, analyze and interpreted to establish knowledge management and firm performance. Correlation design was also used to assess the degree/strength of relationship that exists between the Independent variables and the dependent variable and finally the relationship between the variables. The regression was calculated using the basic regression model

$$y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where;

Y= Firm performance,  $\alpha$  =constant,  $\beta_1 \dots \beta_8$  = parameter estimates,  $X_1$  = Knowledge acquisition,  $X_2$  = Knowledge conversion,  $X_3$  =knowledge application,  $X_4$  = Knowledge protection,  $\varepsilon$  is the error of prediction.

### Results

This chapter presents the findings of the study and the process through which the results were obtained.

#### Descriptive statistics

The researcher sought to arrive at average mean of the variables; Knowledge protection, knowledge acquisition, knowledge application, knowledge conversion and firm performance by getting the average mean of the variable items of each respondents and getting the average mean of all the respondents.

**Table 1 Variable constructions**

	Mean	Std. Deviation	Skewness	Kurtosis
Knowledge acquisition	4.0431	0.32055	0.242	1.648
Knowledge conversion	3.9421	0.30729	0.303	-0.69
Knowledge application	4.3904	0.31001	-0.738	0.201
Knowledge protection	4.0406	0.42942	-0.437	0.186
Organization culture	4.3659	0.49213	-1.081	1.109
Firm performance	4.4218	0.41053	-1.232	2.548

Interpretation scale is:

1- 1.49 = Strongly Disagree 1.5-2.49 = Disagree 2.5 -3.49 =Slightly Disagree  
 3.5-4.49= Neutral 4.5 - 5.49 =Slightly Agree 5.5- 6.49 = Agree 6.5 - 7 = Strongly Agree

#### Factors analysis

Factor analysis is often used in data reduction to identify a small number of factors that explain most of the variance that is observed in a much larger number of manifest variables. Table 4.14 shows the factor loading for each item as sorted by size. Any item that failed to meet the criteria of having a factor loading value greater than 0.5 and loads on one and only one factor is dropped from the study Wei et al. (2008). Components matrix in factor analysis showed the components matrix before rotation. The matrix contained the loading of each variable on each factor. The study loading less than 0.5 were suppressed in the output. The study results showed that all values for all the factors were more than 0.5 reflecting the accepted value of factor loading. Factor analysis was performed to test the validity of the model. Factor analysis attempted to identify underlying variables, or factors, that explained the pattern of correlations within a set of observed variables.

**Table 2 Knowledge acquisition**

	Loading
Has Process for acquiring knowledge about our customers	0.756
Has processes for generating new knowledge from existing knowledge	0.854
Has processes for acquiring knowledge about our suppliers	0.769
Uses feedback from projects to improve subsequent projects	0.887
Has processes for exchanging knowledge with our business partners	0.742
Has processes for inter-organizational collaboration	0.773
Has processes for acquiring knowledge about new products/service within our industry	0.845
Has processes for acquiring knowledge about competitors within our industry	0.773
Has processes for benchmarking performance	0.774
Has teams devoted to identify best practice	0.804
Has processes for exchanging knowledge between individuals	0.798
<b>knowledge conversion</b>	
Has processes for converting knowledge into the design of new products/services	0.837
Has process of converting competitive intelligence into plans of action	0.807
Has processes for filtering knowledge	0.611
Has processes for transferring organizational knowledge to individuals	0.806
Has processes for absorbing knowledge from individuals into the organization	0.811
Has processes for absorbing knowledge from business partners into the organization	0.908
Has processes for distributing knowledge throughout the organization	0.901
Has processes for integrating different sources and types of knowledge	0.796
Has processes for organizing knowledge	0.704
Has processes for replacing outdated knowledge	0.726
<b>Knowledge application</b>	
Has processes for applying knowledge learned from mistakes	0.858
Has processes for applying knowledge learned from experiences	0.719
Has processes for using knowledge in development of new products /services	0.894
Has processes for using knowledge to solve new problems	0.808
Matches sources of knowledge to problems and challenges	0.834
Uses knowledge to improve efficiency	0.813
Uses knowledge to adjust strategic direction	0.813
Is able to locate and apply knowledge to changing competitive conditions	0.679
Makes knowledge accessible to those who need it	0.748
Takes advantage of new knowledge	0.801
Quickly applies knowledge to critical competitive needs	0.772
Quickly links sources of knowledge in solving problems	0.782
<b>Knowledge protection</b>	
Has processes to protect knowledge from inappropriate use inside the organization	0.874
Has processes to protect knowledge from inappropriate use outside the organization	0.868
Has processes to protect knowledge from theft from within the organization	0.888
Has processes to protect knowledge from theft from outside the organization	0.799
Has incentives that encourage the protection of knowledge	0.758
Has technology that restricts access to some sources of knowledge	0.824
Has extensive policies and procedures for protecting trade secrets	0.862
Values and protects knowledge embedded in individuals	0.847
Knowledge that is restricted is clearly identified	0.784
Clearly communicates the importance of protecting knowledge	0.814

**Correlation Results**

Pearson Product-Moment Correlation (r) was used to test the hypothesis. The results were summarized and presented in table 4.12. Pearson Correlation results in table 4.12 showed that knowledge protection is positively related with firm performance with a Pearson Correlation coefficient of  $r = .636$  which is significant at  $p < 0.01$ . The output also shows that knowledge application is positively related with firm performance, with a coefficient

of  $r = .599$  which is also significant at  $p < 0.01$ . Also, the correlation results indicated that knowledge conversion is positively related with firm performance as shown by a coefficient of  $r = .599$  which is significant at  $p < 0.01$ . Finally, knowledge acquisition exhibited positive relationship with firm performance as indicated by a coefficient of  $r = .580$  which is significant at  $p < 0.01$ . From the foregoing, there is a linear relationship between knowledge protection, knowledge acquisition, knowledge application and knowledge conversion with performance. This provided more ground to perform multiple regression analysis.

**Table 3 Correlation Results**

	Firm performance	Knowledge acquisition	Knowledge conversion	Knowledge application	Knowledge protection
Firm performance	1				
Knowledge acquisition	.580**	1			
Knowledge conversion	.599**	.454**	1		
Knowledge application	.599**	.505**	.426**	1	
Knowledge protection	.636**	.477**	.614**	.532**	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

### Regression model results/ testing of hypothesis

Table 4 illustrates the model summary of multiple regression model, the results showed that all the four predictors (knowledge protection, knowledge acquisition, knowledge application and knowledge conversion) explained 58.2 percent variation of firm performance. Further, the Durbin- Watson value was within the thumb rule (1.602) which shows lack of serial correlation. Study findings in table 4 indicated that the above discussed coefficient of determination was significant as evidence of F ratio of 44.526 with p value  $0.000 < 0.05$  (level of significance). Thus, the model was fit to predict firm performance using knowledge protection, knowledge acquisition, knowledge application and knowledge conversion.

### Test of Hypothesis

It is useful to check the existence of multicollinearity or Collinearity between the independent variables before embarking on multiple regression analysis. As evidenced in table 4, the VIF for all the estimated parameters were found to be less than 4 which indicate the absence of multi-Collinearity among the independent factors.

#### Hypothesis 1

The results of multiple regressions, as presented in table 4 revealed that knowledge acquisition has a positive and significant effect on firm performance with a beta value of  $\beta_1 = 0.227$  ( $p$ -value = 0.002 which is less than  $\alpha = 0.05$ ). Therefore, the researcher rejects the null hypothesis and it is accepted that for each unit increase in knowledge acquisition, there is 0.227unit increase in firm performance..

#### Hypothesis 2

The results of table 4.17 showed that the standardized coefficient beta and p value of knowledge conversion was positive and significant (beta = 0.236,  $p < 0.05$ ). Thus, the researcher rejects the null hypothesis and it is accepted that, knowledge conversion has a positive and significant effect on firm performance. In line with the findings, knowledge conversion makes it possible for firms to organize knowledge that has been created or acquired and applying it in many other ways that allow the knowledge to become accessible (Davenport and Klahr, 1998; O'Dell and Grayson, 1998a).

#### Hypothesis 3

As shown in table 4.17, p-value is significant ( $p < 0.05$ ), and the beta value of knowledge application was positive (beta = 0.251). Therefore, the researcher rejects the null hypothesis and concludes that knowledge application has a positive and significant effect on firm performance. Reid (2003) assertion that knowledge application creates an avenue for opportunities to maximize organization ability to generate solutions and to have a competitive advantage. Further, knowledge utilization transforms acquired knowledge into a dynamic capability that impacts organizational performance (Seleim and Khalil, 2007; Zahra and George, 2002).

#### Hypothesis 4



Table 4.17 further shows that knowledge protection has a positive and significant effect on firm performance with a beta value of  $\beta_4 = 0.250$  (p-value = 0.002 which is less than  $\alpha = 0.05$ ). Therefore, the researcher rejects the null hypothesis and it is accepted that for each unit increase in knowledge protection, there is 0.250 unit increase in firm performance. Consistent with the results, the use of copyrights and patents together with information technology systems that secures knowledge through password and file sharing protocols enhances the effective functioning and control within organizations (Lee and Yang, 2000)

**Table 4 Test of Hypothesis**

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	0.042	0.337		0.125	0.900		
knowledge acquisition	0.254	0.079	0.227	3.218	0.002	0.658	1.520
knowledge conversion	0.256	0.081	0.236	3.163	0.002	0.586	1.707
knowledge application	0.294	0.084	0.251	3.487	0.001	0.632	1.583
knowledge protection	0.253	0.08	0.25	3.149	0.002	0.520	1.923
R Square	0.582						
Adjusted R Square	0.569						
Durbin-Watson	1.602						
F	44.526						
Sig.	.000						

a Dependent Variable: firm performance

### Conclusions and Recommendations

Knowledge acquisition enables a firm to adopt the best practice and generate new knowledge from existing knowledge. This way, they are able to have an insight of the competitors in the industry and the best ways to outperform them. The competitive advantage is attained by acquiring knowledge about customers, suppliers as well as prospective business partners. Knowledge conversion allows the knowledge in a firm to be more accessible to individuals in the organization and also business partners. The firms have exhibited processes of converting competitive intelligence into plans of action and replacing outdated knowledge. As such, the knowledge conversion has enhanced the design of new products/services and absorption of knowledge from business partners.

Knowledge application also helps a firm to enhance its business performance. This is achieved by having up-to-date information and processes for applying knowledge learned from experiences. Knowledge application also helps a firm to solve new problems and develop new products /services. Knowledge is also applied to critical competitive needs and in adjusting strategic decisions made so as to improve efficiency.

Finally, for a firm to have superior performance, its knowledge needs to be secured. The findings of the study have established that knowledge embedded in individuals is valued and protected. Relevant processes are also in place to protect knowledge from inappropriate use and theft from outside the organization. Incentives together with policies that encourage the protection of knowledge are also in place.

It is therefore necessary for firms to have processes for generating new knowledge from existing knowledge and for acquiring knowledge about competitors within their industry. Also, It is therefore imperative for firms to have processes for converting knowledge into the design of new products/services and a process of converting competitive intelligence into plans of action. firms need to have processes for applying knowledge learned from experience. Finally, there is need for a firm to secure its knowledge so as to have superior performance. Particularly, firms need to assure their organizational knowledge is kept safely.

This study recommends that another study should be done to augment finding in this study; it therefore recommends a study be done on the effect of knowledge management on firm performance, moderated by leadership style.

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