## Effect of Knowledge Conversion and Knowledge Application on Performance of Commercial Banks in Kenya

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### **ABSTRACT**

This study examines the effect of knowledge conversion and knowledge application on performance of Commercial Banks in Kenya. The four modes of knowledge conversion process comprising of socialization, externalization, combination and internalization are utilized in this study. knowledge application was measured using indicators comprising of problem solving, elaboration, efficient processes, IT support, and infusion In addition, performance was measured using non-financial indicators comprising new products, speed of response to market crises, product improvement, customer retention, and new processes. The study adopted explanatory and cross-sectional survey design. The target population of this study comprised of all the 43 Commercial Banks in Kenya. The unit of observation was the functional area in each bank. Five areas were identified in each bank comprising human resource, finance, marketing, information communication technology, and operations in each bank. This study used primary and secondary data. Primary data was collected using a semistructured questionnaire. The questionnaire was administered using the drop-and-pick later method. Secondary data was collected using document review and was used to validate information collected from the questionnaire. The response rate in this study was approximately seventy three percent which was considered sufficient for making inferences and drawing conclusions. Quantitative data was analysed using descriptive and inferential statistics. Descriptive statistics included percentages, frequencies, means, and standard deviations while inferential statistics involved regression analysis. Results from quantitative data analysis were presented using figures and tables. Qualitative data was analysed on the basis of common themes and presented in narrative form. The findings of the study established that knowledge conversion and knowledge application positively influence performance. Management of Commercial Banks should encourage interaction between employees and customers. Moreover, bank's processes should be used to enhance understanding and translation of knowledge (explicit) into application (tacit knowledge).

**Keywords:** Knowledge Management, Knowledge Conversion, Knowledge Application and Organizational Performance

### 1.0 Introduction

A vast body of strategic management literature has focused on offering explanation on performance heterogeneity in organizations (Hughes and Morgan, 2007). The resource-based view (RBV) focuses on characteristics of firm resources that contribute to performance in the form of competitive advantage (Grunert and Hildebrandt, 2004). It assumes resource heterogeneity between competing firms, and further contends that these resources are not mobile, which makes long term, sustainable competitive advantage possible based on the internal configuration of strategically relevant resources. In particular, intangible assets such as knowledge, innovation, and intellectual properties have been identified as value drivers and sources of company's competitive advantage. Makhija (2003) suggests that these valuable resources are frequently found in the organization in the form of tacit knowledge. Furthermore, Liu and Wei (2009) confirm that knowledge-based assets or resources provide heterogeneous capabilities that give each company its unique character and are the essence of competitive advantage.

Extant literature identifies different dimensions of knowledge management that have potential to drive performance (Choi and Lee 2002; Dröge, Claycomb and Germain, 2003; Sabherwal and Sabherwal, 2005,). Past researches have focused on knowledge conversion and application some of the key dimensions of knowledge management with potential to improve firm's performance (Mohrman, Finegold and Mohrman, 2003; Abdul, Yahya, Beravi and Wah, 2008; Ajmal and Koskinen, 2008; Yusoff and Daudi, 2010; Gasik, 2011). Management scholars concur that competitive advantage in the 21<sup>st</sup> century is linked to knowledge-based resources which provide heterogeneous capabilities thus giving each organization its unique character (Sher and Lee, 2004; Wong and Aspinwall, 2006; Liu and Wei, 2009).

A process model of knowledge creation presupposes that individual and organizations create and enlarge knowledge through conversion of tacit knowledge into explicit knowledge and vice versa. Through knowledge conversion, the whole organization can share the explicit knowledge created and convert it into tacit knowledge for individuals Tseng (2010). Knowledge that is captured from various sources needs to be converted to organizational knowledge for effective utilization within the business (Lee and Suh, 2003). Becerra-Fernandez, Gonzales and Sabherwal (2004) noted that KM can help create knowledge, which can then contribute to improved firm's performance. Moreover, KM activities can assist organisations in acquiring, storing and utilising knowledge for processes such as problem solving, dynamic learning, strategic planning and decision-making (Takeuchi and Nonaka, 2004). Knowledge conversion is considered a critical dimension of KM comprising of the social process through which individuals with different information interact and thereby create new knowledge as well as increase the quality of both tacit and explicit knowledge (Sa'nchez and Palacios, 2008).

Knowledge application is the process through which knowledge is directly applied to task performance or problem solving. Knowledge may be possessed and applied by individuals or by whole teams (Ajmal and Koskinen, 2008). Companies benefit not from the existence of knowledge but from its proper application (Alavi and Leidner, 2001; Gasik, 2011). Organizational routines, direct guidelines and instructions, and self-organizing teams constitute the main mechanisms that guarantee the application of knowledge (Grant, 1996; Gasik, 2011). Knowledge application may take different forms such as elaboration (when a different interpretation is required), infusion

(finding underlying issues), or thoroughness (when different people or teams develop different understanding) (King, Chung and Haney, 2008).

Commercial Banks plays a crucial role in economic development of a nation (CBK, 2014) and are commonly recognised for their contribution to the economic activity, employment, innovation and wealth creation of a country (Ongore and Kusa, 2013). In addition, Shih, Chang and Lin (2010) observed that banking is a typical knowledge-intensive industry that involves activities of knowledge exchange (service) rather than exchange of goods. Therefore, managing knowledge has become as important to Commercial Banks as it is for other knowledge based organizations. As noted by Rono (2011), KM is indispensable in the banking industry because competition and most of the work in the industry are knowledge-based. Moreover, the last open frontier for banks to create competitive advantage may reside in their ability to leverage knowledge, since banking is not just a business of handling money but also a business that is driven and sustained by information.

Despite the numerous benefits deriving from exploitation of knowledge resources within organizations, not may studies have focused on the essence of knowledge conversion and application on performance. In addition, the few studies that have been conducted have focused on developed economies (Lee and Choi, 2003; Yeh, Lai and Ho, 2006) and hardly involved Commercial Banks. Therefore, there was a need to investigate the influence of knowledge conversion and knowledge application on performance of Commercial Banks in Kenya.

### 2.0 Literature Review

### 2.1 Resource-Based View of the Firm

The resource-based view (RBV) perceives a firm as an aggregation of resources which are translated by management into strengths and weaknesses of the firm. RBV holds that companies gain sustainable competitive advantages by deploying valuable resources and capabilities that are inelastic in supply (Grunert and Hildebrandt, 2004). This perspective contends that a firm's competitive advantage is due to endowment of strategic resources that are valuable, rare, costly to imitate, and costly to substitute. It assumes that organizations must be successful in obtaining and managing valued resources in order to be effective. In the resource-based perspective, organizational effectiveness is defined as the ability of the organization in either absolute or relative terms, to obtain scarce and valued resources and successfully integrate and manage such resources (Dess, Lumkin, Eisner, Lumpkin and McNamara, 2012).

Resources are financial, physical, social or human, technological, and organizational factors that allow a company to create value for its customers. Company resources are either tangible or intangible (Jones and Hill, 2009). Intangible resources are non-physical entities that are the creation of managers and other employees, such as brand names, the reputation of the company, the knowledge that employees have gained through experience, and the intellectual property of the company, including that which is protected through patents, copyrights, and trademarks. Tangible resources are physical and include land, buildings, plant, equipment, inventory, and money. Although physical resources may be the origin of above average returns, intangible resources developed through a unique historical sequence and having a socially complex dimension, are responsible for creating and sustaining competitive advantage (Makhija, 2003).

RBV assumes resource heterogeneity between competing firms, and further contends that these resources are not mobile, which makes long term, sustainable competitive advantage possible based on internal configuration of strategically relevant resources (Grunert and Hildebrandt, 2004). In case a resource is firm-specific and difficult to imitate a resource, then a company is likely to have a distinctive competence. Furthermore, a distinctive competence is a unique firm-specific strength that enables a company to better differentiate its products and/or achieve substantially lower costs than its rivals and thus gain a competitive advantage. RBV proposes that firm's resources must be evaluated in terms of how valuable, rare, and hard they are for competitors to duplicate (Dess *et al.*, 2012). In the absence of such valuable resources the firm attains only competitive parity. Makhija (2003) suggests that these valuable resources are frequently found in the organization in the form of tacit knowledge. Thus, in this study, the postulates of RBV were used to inform the independent variables.

### 2.2 Empirical Literature Review

### 2.2.1 Knowledge Conversion

Knowledge conversion is a social process where individuals with different knowledge interact and thereby create new knowledge which grows the quality and quantity of both tacit and explicit knowledge (Sa´nchez and Palacios, 2008). The purpose of enterprises implementing KM is to improve and enhance corporate performance (Gottschalk, 2007). A process model of knowledge creation presupposes that individual and organizations create and enlarge knowledge through conversion of tacit knowledge into explicit knowledge and vice versa. Through knowledge conversion, the whole organization can share the explicit knowledge created and convert it into tacit knowledge for individuals Tseng (2010). Knowledge that is captured from various sources needs to be converted to organizational knowledge for effective utilization within the business (Lee and Suh, 2003).

Nonaka (1991) postulated four stages of knowledge conversion commonly known as SECI, involving socialization, externalization, combination, internalization. Nonaka and Takeuchi (2004) asserted that the knowledge conversion process is a spiral that involves transformation from tacit into explicit knowledge and the subsequent re-transformation from explicit into tacit knowledge. The model showed that tacit knowledge is explicated or codified based on the end result of the knowledge conversion spiral, which is derived from the interactions between explicit and tacit knowledge. In this model, socialization is the method of adapting implicit knowledge into new tacit knowledge, externalization is the process of articulating tacit knowledge into explicit knowledge, combination is the method of transferring explicit knowledge into more intricate and organized sets of explicit knowledge, and internalization is the process of integrating explicit knowledge into tacit knowledge.

Tseng (2010) utilized knowledge externalization, knowledge combination, knowledge internalization and knowledge socialization to measure knowledge conversion and revealed that knowledge socialization has no effect on corporate performance. However, in its composite nature, knowledge conversion positively influences corporate performance. This study adopted multiple regression analysis for model specification. Nevertheless, the findings of this study were based on a low response rate of 20.15 percent with only 135 out 650 filling-in and returning the questionnaire which is not adequate for making generalization and drawing conclusions as recommended by Mugenda and Mugenda (2003). Fattahiyan, Hoveida, Siadat and Talebi (2013) concluded that

organizational culture and knowledge conversion have no significant effect on performance. However, these results are inconsistent to the extent that not all knowledge resources are found to contribute to performance.

 $\mathbf{H_{01}}$ : Knowledge conversion has no influence on performance of Commercial Banks in Kenya.

### 2.2.2 Knowledge Application

Knowledge application may take different forms such as elaboration (when a different interpretation is required), infusion (finding underlying issues), or thoroughness (when different people or teams develop different understanding) (King, Chung and Haney, 2008). Furthermore, it is the process through which knowledge is directly applied to task performance or problem solving. Knowledge may be possessed and applied by individuals or by whole teams (Ajmal and Koskinen, 2008). As noted by Gasik (2011), companies benefit not from the existence of knowledge but from its proper application.

Yusoff and Daudi (2010) using a 7-point Likert scale, correlation analysis and regression analysis concluded that knowledge application positively influences performance. However, the conclusion of the study cannot be generalised because of the low response rate of thirty eight percent. McKeen, Zack and Singh (2006) using a 5-point Likert scales, showed that there was a statically significant positive link between perceptions of high adoption of the KM practices and perceptions of high organizational performance. KM involves distinct but interdependent processes of knowledge creation, knowledge storage and retrieval, knowledge transfer, and knowledge application (Alavi and Leidner 2001; Gunasekaran and Ngai, 2007). Glisby and Holden (2005) observed that organizations achieve breakthrough by applying KM concepts to supply chains. Fattahiyan, *et al.* (2013) revealed that organizational structure, knowledge acquisition, knowledge application and knowledge protection affect organizational performance.

 $\mathbf{H}_{02}$ : Knowledge application has no influence on performance of Commercial Banks in Kenya.

### 2.2.3 Organization Performance

Understanding the determinants of firm performance has long been a key goal within organizational research (Short, McKelvie, Ketchen and Chandler, 2009) because performance is considered the most important criterion in evaluating organizations, their actions, and environments. In the last decade, the influence of KM on performance has been an enduring research theme in organizational theory (Feng 2004; Gan, Ryan and Gururajan, 2006;) providing empirical evidence that KM significantly affect performance (Choi and Lee 2002; Dröge *et al.*, 2003; Sabherwal and Sabherwal, 2005). Extant researchers (Mohrman, *et al.*, 2003; Abdul *et al.*, 2008; Yusoff and Daudi, 2010) identified knowledge conversion, knowledge transfer and knowledge application as key dimensions of KM whose integration can improve firm's performance.

Wilcox King and Zeithaml (2003) observed that KM is intended to increase the quality and performance of the organizational and help a company to compete effectively with other companies in the market. In addition, Bogner and Bansal (2007) distinguished the ability to generate new knowledge as a fundamental mechanism of KM systems that influence the performance of a

company. Zaim, Tatoglu and Zaim, (2007) noted that effective operation of KM enables companies to perform more efficiently and survive in the business competitive environment through sustaining their competitive advantages and developing their knowledge assets. RBV and KBV consider knowledge and KM as critical resources which substantially influence organizational success (Beesley and Cooper, 2008).

According to Jafari, Rezaeenour, Akhavan and Fesharaki (2010), non-financial indicators are suitable for measuring performance because they can be implemented at all levels of organizations and represent a more precise picture than financial indices whose results are superficial. Furthermore, Zhang and Li (2009) observed that financial indicators can only reflect the performance of banks in the past and does not reflect the bank's current and future operating conditions. Financial measures of performance which are based on traditional accounting practices and emphasizes short-term indicators such as profit, turnover, cash flow and share prices, are not fully suitable for measuring corporate performance (Lee, Lee and Kang, 2005). Therefore, this study adopted non-financial indicators of performance comprising of new products, speed of response to market crises, product improvement, customer retention, and new processes.

### 3.0 Research Methodology

This study adopted explanatory and cross-sectional survey design as recommended by Saunders, Lewis and Thornhill (2009). As noted by Saunders, Lewis and Thornhill (2007) explanatory study helps to establishes causal relationships between the study variables. In addition, a cross-sectional study helps to measure the relationship of variables at a specified time so as to describe the incidence of a phenomenon and how the variables are related. The research design adopted would help to establish the influence of knowledge conversion and knowledge application on performance of Commercial Banks in Kenya.

The dependent variable was considered as a continuous variable and thus regression analysis was adopted as recommended by Field (2009). Univariate analysis was used to perform regression on the relationships between the two research variables. In particular, knowledge conversion and knowledge application were regressed on performance as shown below.

# Commercial Bank Performance = $\beta_1 + \beta_1 Knowledge$ Conversion + $\beta_2 Knowledge$ Application + $\epsilon$

The population of this study comprised of all the 43 Commercial Banks in Kenya categorized into large, medium, and small banks on the basis of market share. Five areas were identified in each bank comprising human resource, finance, marketing, information communication technology, and operations in each bank. Thus, a census survey was used where the unit of observation was the functional area in each bank. Proportionate stratified sampling of respondents was undertaken on the basis of the number of banks in the three strata comprising large, medium, and small banks and the five functional areas. In this case, the resulting sample size of 215 was considered representative of the three strata comprising large, medium and small banks.

Primary and secondary data were utilized in this study. Primary data was collected using a semi-structured questionnaire administered to managers of the five functional areas identified in each bank. Closed-ended questions constructed on a 5-point Likert scale (1-strongly disagree and 5-

strogly agree) provided structured responses that facilitated quantitative analysis, testing of hypothesis, and drawing of conclusion. However, open-ended questions provided additional information that may not have been captured by the closed-ended questions. Secondary data was obtained through document review of published sources including periodicals from CBK such as CBK Bank Supervision Annual Report and CBK Monthly Economic Review.

The pilot study involved fifteen respondents randomly selected from the target population. Face and content validity of the questionnaire items for the two research variables were verified through literature review and expert suggestions as recommended by Mugenda and Mugenda (2003). Furthermore, factor analysis confirmed that the study variables had construct validity as recommended by Kerlinger and Lee (2000). Cronbach's Alpha for the study variables was established at 0.886, 0.841 and 0.712 for knowledge conversion, knowledge application and performance respectively which lie within the threshold of at least 0.7 recommended by Marczyk, DeMatteo and Festinger (2005) and thus confirmed the reliability of the items utilized in the study instrument.

A research permit was sought from the National Council of Science, Technology and Innovation (NACOSTI) before embarking on data collection. At the bank level, permission was sought from the bank management to collect data from their managers. The respondents were requested to indicate their informed consent to participate in the study. The researcher administered the questionnaire individually to all the respondents and collected the completed questionnaires later.

#### 4.0 Results and Discussion

The researcher administered 215 questionnaires, out of which 156 were filled-in and returned translating to a response rate of 73% respondents. This response rate is considered sufficient for making inferences and drawing conclusions from the research data as recommended by Mugenda and Mugenda (2003).

### **4.1 Descriptive Statistics**

The sample measures that were most pertinent to the objectives of this study were sample mean and sample standard deviation were used as a basis for summarizing, describing and comparing research variables numerically as well as revealing pattern of sample data-set as recommended by Saunders *et al.*(2009).

**Table 1: Descriptive Statistics for the Study Variables** 

Table 1. Descriptive Statistics for the Study variables	n	Min	Max	Mean	S/D
KNOWLEDGE CONVERSION					
Socialization					
Interaction with customers is encouraged	156	1.00	5.00	3.88	0.75
Knowledge and experiences are shared through interaction with	150	1.00	5.00	2 27	0.71
employees	156	1.00	5.00	3.37	0.71
Knowledge and experiences are shared through interaction with	150	1.00	5.00	2.65	0.70
suppliers	156	1.00	5.00	3.65	0.70
Aggregate score for socialization				3.63	0.72
Externalization					
Ability to articulate their ideas or images into a readily understandable	156	1.00	5.00	3.72	0.59
form					
Ability to elicit and translate customers' knowledge to readily	156	1.00	5.00	3.86	1.03
understandable form					
Ability to elicit and translate experts' knowledge to readily	156	1.00	5.00	3.87	1.03
understandable form					
Aggregate score for externalization				3.82	0.88
Combination					
Knowledge is organized and integrated through reports	156	1.00	5.00	3.74	0.97
Meetings helps in integrating knowledge	156	1.00	5.00	3.99	0.74
Knowledge is disseminated through briefs	156	1.00	5.00	3.76	0.83
There is use of information technology in editing or processing	156	1.00	5.00	3.80	0.85
information					
Exchange of documents helps in integrating knowledge	156	1.00	5.00	3.67	0.79
Aggregate score for combination				3.80	0.84
Internalization				2.10	0.01
Bank's processes enhances translating of knowledge (explicit) into	156	1.00	5.00	3.19	0.81
application (tacit)		4.00		2.00	0.75
There is actualization of concepts and methods through the actual doing	156	1.00	5.00	3.90	0.75
There is actualization of concepts and methods through simulations	156	1.00	5.00	3.72	0.84
Aggregate score for internalization				3.60	0.70
AGGREGATE SCORE FOR KNOWLEDGE CONVERSION				3.72	0.81
KNOWLEDGE APPLICATION	150	1.00	<b>5</b> 00	2.00	0.62
Bank leadership has pioneered and driven KM adoption and use	156	1.00	5.00	3.88	0.62
There is a KM training program	156	1.00	5.00	4.27	0.63
There are continuous improvements as a result of KM application.	156	1.00	5.00	4.03	0.54
There is a KM strategy in the bank	156	1.00	5.00	4.19	0.73
KM has yielded efficient processes	156	1.00	5.00	4.04	0.79
IT used in KM has supported worker's needs	156	1.00	5.00	4.23	0.83
AGGREGATE SCORE FOR KNOWLEDGE APPLICATION				4.12	0.69
PERFORMANCE Non-area durate	156	1.00	5.00	1.26	0.61
New products	156	1.00	5.00	4.26	0.61
Increased speed of response to market crises	156	1.00	5.00	4.15	0.48
Improvement of existing product	156 156	1.00 1.00	5.00 5.00	4.38	0.70
New processes Improvement of existing processes	156	1.00	5.00	4.58	0.72
Enhanced customer retention	156	1.00	5.00	4.14 4.15	0.63 0.73
AGGREGATE SCORE FOR PERFORMANCE	150	1.00	5.00	4.13 <b>4.28</b>	
Courses Field Date (2015)				4.28	0.65

Source: Field Data (2015)

Table 1 shows the aggregate mean score for the four dimensions of knowledge conversion is 3.72 and thus tends to 4.00 (agree) on the 5-point Likert scale utilized in this study. In addition, the variability of responses from the aggregate mean score is low as indicated by the aggregate standard

deviation of 0.81. This aggregate mean score reveals that the level of activities relating to conversion of knowledge in Commercial Banks is high. In addition, the low aggregate standard deviation implies that the responses are concentrated around the aggregate mean and thus it's a stable and reliable estimator of the true mean. In this case, the narrow variation from the overall mean response confirms that the respondents agreed that knowledge conversion plays a major role in performance.

The aggregate mean score for items on knowledge application is 4.12 and its corresponding standard deviation is 0.69. This overall mean score tends to 4.00 (agree) on the 5-point Likert scale adopted for the study and thus indicates that respondents generally agreed that activities involving knowledge application are practiced in Commercial Banks. In addition, the responses are clustered around the mean response as illustrated by the low aggregate standard deviation. The low variability of responses reveals that the mean response is a reliable estimator for the true mean. The narrow variability from the overall mean response confirms that knowledge application is important for performance.

Furthermore, the overall mean score and standard deviation for items on performance are 4.28 and 0.65 respectively. The aggregate mean score approximates to 4.00 (agree) on the 5-point Likert scale used in this research confirming that there is agreement amongst respondents that the indicators for performance are present in Commercial Banks. The low aggregate standard deviation reveals a narrow variability of responses and thus the aggregate mean responses is a stable and reliable estimator of the population mean. The overall narrow variability of responses from the aggregate mean response confirms that performance is important in Commercial Banks.

### 4.2 Test of Hypothesis

Univariate analysis was used to empirically test the hypothesis adopted for this study at 95% level of confidence as a statistical basis for drawing conclusions. The responses for each research variable were combined to generate composite scores which were used in the regression analysis. Knowledge conversion was regressed on performance as shown in Table 2.

Table 2: Regression Results for Knowledge Conversion on Performance

	Unstandardized	Standardized	l Coefficients	t	Sig.	
	Coefficients	Beta	Std. Error	Beta		
(Constant)		1.803	.260		1.127	.115
Knowledge Conversion		.251	.049	.326	5.109	.000
Knowledge Application		.904	.062	.900	14.488	.000
R	R Square	Adj R Square	Std. Error of the Estimate		<b>Durbin-Watson</b>	
.766ª	.587	.579	.27009		2.257	
	Sum of Squares	Df	Mean Square	F	Sig.	
Regression	15.774	3	5.258	72.081	.000b	
Residual	11.088	152	.073			
Total	26.862	155				

a. Predictors: (Constant), Knowledge Conversion, Knowledge Application

**b. Dependent Variable:** Performance

Source: Field Data (2015)

The regression model estimated in Table 2 for the direct relationship is presented below.

### Commercial Bank Performance = 1.803 + 0.251Knowledge Conversion + 0.904Knowledge Application

### 4.2.1 Test of Hypothesis One

The first specific objective sought to determine the relationship between knowledge conversion and performance. The corresponding research null hypothesis proposed that knowledge conversion has no relationship with performance. The regression model estimated in Table 2 revealed that knowledge conversion is statistically significant at  $\beta$ =0.251; t = 5.109; p = 0.001, therefore at 95% confidence level, knowledge conversion has a positive effect on performance. These results also illustrates that a unit increase in knowledge conversion is responsible for increasing performance by 0.251. This study concludes that knowledge conversion influences performance of Commercial Banks.

### 4.2.2Test of Hypothesis Two

The second specific objective sought to determine the relationship between knowledge application and performance. The research null hypothesis formulated from this objective proposed that knowledge application has no relationship with performance. The results of regression analysis in Table 2 confirmed that knowledge application is statistically significant at  $\beta$ =0.904; t = 14.488; p = 0.001, therefore at 95% confidence level, knowledge application has a positive effect on performance. In this case, a unit increase in knowledge application causes an increase of 0.904 in performance. Therefore, the conclusion of this study is that knowledge application influences performance of Commercial Banks.

### 5.0 Conclusion and Recommendations

Corporate performance is a key focus of management within organizations. This study investigated the influence of knowledge conversion and knowledge application on performance of Commercial Banks in Kenya. On the basis of the findings, the researcher inferred some important conclusions. In regard to the first objective, knowledge conversion is statistically significant and therefore knowledge conversion has a positive influence on performance. Similarly, based on the second objective, knowledge application is statistically significant and hence knowledge application has a positive influence on performance.

Management of Commercials Banks should consider enhancing practices associated with the different elements of knowledge conversion such as externalization, combination, socialization and internalization. Particularly, interaction with customers should be encouraged and bank's processes should be used to enhance understanding and translation of knowledge (explicit) into application (tacit knowledge). Furthermore, in relation to knowledge application, management of Commercial Banks should take initiatives to pioneer and drive KM adoption and use as well as commit more financial resources on KM training programs.

This study sought to investigate the influence of knowledge conversion and knowledge application on performance of Commercial Banks in Kenya. In this case, the findings and conclusions are limited to Commercial Banks in Kenya. Future research should focus on validating the findings and conclusion of this study by undertaking replicative researches in other organizations and sectors in

Kenya. Moreover, further research should be carried out to investigate the relationship between other dimensions of knowledge management and performance.

### **REFERENCES**

- Abdul, R. H, Yahya, I. A., Beravi, M. A., & Wah, L. W. (2008). Conceptual Delay Mitigation Model using a Project Learning Approach in Practice. *Construction Management and Economic*, Vol.26, Pp. 15–27.
- Ajmal, M. M., & Koskinen, K. U. (2008). Knowledge transfer in project based organizations: An organizational culture perspective. *Project Management Journal*, Vol. 39, No. 1, Pp. 7–15.
- Alavi, M. & Leidner, D. E. (2001). Knowledge Management and Knowledge Management Systems: conceptual foundations and research issues. *MIS Quart*, Vol. 25, No.1, Pp. 107–136.
- Becerra-Fernandez, I., Gonzalez, A. & Sabherwal, R. (2004). *Knowledge Management: Challenges, Solutions, and Technologies*. Pearson Education, Inc.: New Jersey, USA
- Beesley, L. G. & C. Cooper, C. (2008). Defining Knowledge Management Activities: Towards Consensus. *Journal of Knowledge Management*, Vol. 12, No.3, Pp. 48-62.
- Bogner, W.C. & Bansal, P. (2007). Knowledge Management as the Basis of Sustained High Performance. *Journal of Management Studies*, Vol.44, No.1, Pp.165-188.
- Central Bank of Kenya (2014). Bank Supervision Annual Report 2014. Central Bank of Kenya, Nairobi.
- Choi, B. and Lee, H. (2002). Knowledge Management Strategy and its Link to Knowledge Creation Process. *Journal of Knowledge Management Practice*, Vol. 23 No. 3, Pp. 173-87.
- Dess, G. G., Lumkin, G. T., Eisner, A. B. & McNamara, G. (2012). *Strategic Management: Text and Cases*. McGraw-Hill: New York.
- Dröge, C., Claycomb, C. & Germain, R. (2003). Does Knowledge Mediate the Effect of Context on Performance? Some Initial Evidence. *Decision Science*. Vol.34, No.3, Pp. 541–568.
- Fattahiyan, S., Hoveida, R., Siadat, S. A. & Talebi, H. (2013). The Relationship between Knowledge Management Enablers, Processes, Resources and Organizational Performance in Universities. *International Journal of Education and Research*, Vol. 1, No.1.
- Field, A. (2009). Discovering Statistics using SPSS (2<sup>nd</sup> ed.). Sage: London, UK.
- Feng, K., Chen, E. T. & Liou, W. (2005). Implementation of Knowledge Management Systems and Firm Performance: An Empirical Investigation. *Journal of Computer Information Systems*, Vol.45, No.2, Pp. 92-104.
- Gan, G. G., Ryan, C. & Gururajan, R. (2006). The Effects of Culture on Knowledge Management Practice: A Qualitative Case Study of MSC Status Companies. *Kijian Malaysia*, Vol. 24, No.1/2.
- Gasik, S. (2011). A Model of Project Knowledge Management. *Project Management Journal*, Vol. 42, No. 3.
- Glisby, M. & Holden, N. (2005). Applying Knowledge Management Concepts to the Supply Chain: How a Danish Firm Achieved a Remarkable Breakthrough in Japan. *Journal of Business Research*, Vol. 19, No.2, Pp.85–89.

Gottschalk, P. (2007). Predictors of Police Investigation Performance: An Empirical Study of Norwegian police as Value Shop. *International Journal of Information Management*, Vol. 27, No. 1, Pp. 36-48.

- Grant, R. M. (1996). Toward a Knowledge-Based Theory of the Firm. *Strategic Management Journal*, Vol. 17, Pp.109-122.
- Grunert, K. G. & Hildebrandt, L. (2004). Success Factors, Competitive Advantage and Competence Development. *Journal of Business Research*, Vol.57, Pp. 459-461.
- Gunasekaran, A & Ngai, E. W. T.(2007). Knowledge Management in 21st century Manufacturing. *International Journal of Production Research*, Vol. 45, No. 11.
- Hughes, P. & Morgan, R.E. (2007). A Resource-Advantage Perspective of Product Market Strategy Performance and Strategic Capital in High Technology Firms. Journal of Business Research, Vol.36, No.4, Pp. 503-517.
- Jafari, M., Jalal, R., Akhavan, P. & Mehdi, N. F. (2010). Strategic Knowledge Management in Aerospace Industries: a Case Study. *Aircraft Engineering and Aerospace Technology*, Vol. 82, No.1, Pp. 60 74.
- Jones, G. R. & Hill, C. L. (2009). *Strategic Management: An Integrated Approach*. Houghton Mifflin: Boston, USA.
- Kerlinger, F. N., & Lee, H. B. (2000). Foundations of Behavioral Research (4<sup>th</sup> ed.). Harcourt College Publishers: New York, USA.
- King, W. R., Chung, T. R., & Haney, M. H. (2008). Knowledge Management and Organizational Learning. *Editorial Omega*, Vol. 36, Pp. 167–172.
- Lee, H. & Choi, B. (2003). Knowledge Management Enablers, Processes, and Organizational Performance: An Integrative View and Empirical Examination. *Journal of Management Information Systems*, Vol.20, No.1, Pp. 179-228.
- Lee, H. & Suh, Y. (2003). Knowledge Conversion with Information Technology of Korean Companies. *Business Process Management Journal*, Vol.9, No.3, Pp.317-36.
- Lee, K.C., Lee, S. & Kang, I.W.(2005). KMPI: Measuring Knowledge Management Performance. *Information and Management*, Vol. 42, No. 3, Pp. 469-82.
- Liu, C. & Wei, K.(2009). Knowledge Management and Performance among Top Emerging Market Companies. *Communications of the IBIMA*, Vol. 7, Pp. 36-43.
- Makhija, M. (2003). Comparing the resource-based and market-based views of the firm: empirical evidence from Czech privatization. Strategic Management Journal, Vol. 24, No. 5, Pp. 433-451.
- Marczyk, G., DeMatteo, D. & Festinger, D. (2005). *Essentials of Research Design and Methodology*. John Wiley and Sons, Inc.: New Jersey, USA.
- Mckeen, J. D., Zack, M. H. & Singh, S. (2006). *Knowledge Management and Organizational Performance: An Exploratory Study*. Proceedings of the Hawaiin International Conference on System Sciences, Hawaii, January.

- Mohrman, S. A., Finegold, D., & Mohrman, A. M. (2003). An Empirical Model of the Organization Knowledge System in New Product Development Firms. *Journal of Engineering and Technology Management*, Vol.20, No.1/2, Pp.7–38.
- Momeni, M., Monavarian, A., Shaabani, E. & Ghasemi, R. (2011). A Conceptual Model for Knowledge Management Process Capabilities and Core Competences by SEM; a Case of Iranian Automotive Industry. *European Journal of Social Sciences*, Vol. 22, No.4.
- Mugenda, A. & Mugenda, O. (2003). *Readings in Research Methods: Quantititive and Qualititative Approaches*. African Centre for Technology Studies Nairobi.
- Nonaka, I. (1991). The Knowledge-Creating Company. Harvard Business Review, Vol 69, No. 6, Pp 96-104.
- Takeuchi, H. & Nonaka, I. (2004). Knowledge Management. John Wiley: Singapore.
- Ongore, V. O. & Kusa, G. B. (2013). Determinants of Financial Performance of Commercial Banks in Kenya. *International Journal of Economics and Financial Issues*, Vol. 3, No. 1, Pp.237-252.
- Rono, C. (2011). Knowledge Management Practices by Commercial Banks In Kenya. *Published Thesis*, University of Nairobi.
- Sabherwal, R. & Sabherwal, S. C. (2005). Knowledge management Using Information Technology: Determinants of Short-Term Impact on Firm Value. *Decision Sci. Vol.*36, No.4, Pp. 531–567.
- Sa'nchez, M. P. S. & Palacios, M. A.(2008). Knowledge-Based Manufacturing Enterprises: evidence from a case study. *Journal of Manufacturing Technology Management*, Vol. 19, No. 4, Pp. 447-68.
- Saunders, M., Lewis, P. & Thornhill, A. (2007). *Research Methods for Business Students* (4<sup>th</sup> ed.). Prentice Hall: Harlow, UK.
- Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research Methods for Business Students* (5<sup>th</sup> ed.). Prentice Hall: London.
- Sher, P. I. & Lee, V. C. (2004). Information Technology as a Facilitator for Enhancing Dynamic Capabilities through Knowledge Management. *Information and Management, Vol.* 41, No.8, Pp.933-945.
- Shih, K. H., Chang, C. J. & Lin, B. (2010). Assessing Knowledge Creation and Intellectual Capital in Banking Industry. *Journal of Intellectual Capital*, Vol. 11, No.1, Pp.74 89.
- Short, J. C., McKelvie, A., Ketchen, D. J. & Chandler, G. N.(2009) Firm and Industry Effects on Firm Performance: A Generalization and Extension for New Ventures. *Strategic Entrepreneurship Journal*, Vol. 3, Pp 47–65.
- Takeuchi, H. & Nonaka, I. (2004). Knowledge Management. John Wiley: Singapore.
- Tseng, S. M. (2010). The Correlation between Organizational Culture and Knowledge Conversion on Corporate Performance. *Journal of Knowledge Management*, Vol. 14, No. 2, Pp. 269-284,

Wilcox King, A. & Zeithaml, C. P. (2003). Measuring Organizational Knowledge: A Conceptual and Methodological Framework. Strategic Management Journal, Vol. 24, No.8, Pp. 763-772.

- Wong, K. & E. Aspinwall (2005). An Empirical Study of the Important Factors for Knowledge-Management Adoption in the SME Sector. *Journal of Knowledge Management*, Vol.9, No.3, Pp. 64-82.
- Yeh, Y., Lai, S. & Ho, C. (2006). Knowledge Management Enablers: a Case Study. *Industrial Management and Data Systems*, Vol.106, No.6, Pp. 793-810.
- Yussoff, W. & Daudi, S. (2010). Knowledge Management and Firms Performance in SMEs: The role of Social Capital as a Mediating Variable. *Asian Academy Management Journal*, Vol. 15, Pp. 135-155.
- Zaim, H., Tatoglu, E. & Zaim, S. (2007). Performance of Knowledge Management Practices: A Causal Analysis. Journal of Knowledge Management, Vol. 13, No. 6, Pp. 392-409.
- Zhang, Y. & Longyi Li, L. (2009). Study on Balanced Scorecard of Commercial Bank in Performance Management System. Proceedings of the 2009 International Symposium on Web Information Systems and Applications (WISA'09) Nanchang, P. R. China, Pp. 206-209.