ISSN 2663-127X

*Vol. 4, Iss. 1 (2023), pp 68 – 81, March 18, 2023. www.reviewedjournals.com, ©Reviewed Journals*

# KNOWLEDGE MANAGEMENT PROCESS, FIRM'S CULTURE AND ORGANISATIONAL EFFECTIVENESS OF FINANCIAL INSTITUTIONS IN SOMALIA

***[1] Mohamed Ghedi Jumale, [2]Prof. Thomas Anyanje Senaji (PhD), [3]Dr. Clemence Nikiyiza Omanwa (PhD)***

[1] PhD Student, Kenya Methodist University [KEMU], Kenya

[2] Professor of Strategic Management, Kenya Methodist University [KEMU], Kenya

[3] Lecturer, Department of Business Administration, Kenya Methodist University [KEMU], Kenya

**Accepted: March 5, 2023**

## ABSTRACT

*In a rapidly changing technological environment across the globe, remaining competitive within the global marketplace is a recurring theme. As a consequence, organisations are continuously purposing to maintain competitive advantage with recent research suggesting knowledge as a key determinant of this advantage alongside other factors. Financial institutions have been found to constitute knowledge-intensive organizations where performance is driven and sustained by information. This study therefore investigated the moderating effect of firm culture on the relationship between knowledge management process and firm the performance of financial institutions in Somalia. We found that knowledge management process (conversion, transfer and application) significantly influenced organisational effectiveness at 5% level of significance. The greatest effect was by knowledge transfer (t=5.665, p<.001), followed by knowledge application (t=3.672, p<.001), and lastly knowledge conversion (t=2.010, p<.046). Further, though organisational culture had a positive significant influence on organisational effectiveness (t=6.109, p<.001), it did not significantly moderate the relationship between knowledge management processes and organisational effectiveness at p <.05. The effect was only significant at 10% level of significance (t=1.813, p<.071 <.1). Based on these findings, it was concluded that knowledge management process, significantly influence organisational effectiveness. It was recommended that the management of financial institutions in Somalia should improve the knowledge management process while the policy makers should strengthen the policy and regulatory environment for the financial sector.*

***Key Words:*** *Knowledge Management Process, Culture, Organizational Effectiveness, Financial Institutions, Somalia*

**CITATION:** Jumale, M. G., Senaji, T. A., & Omanwa, C. N. (2023). Knowledge management process, firm's culture and organisational effectiveness of financial institutions in Somalia. *Reviewed Journal International of Business Management*, 4 (1), 68 – 81.

## INTRODUCTION

In the last decade, the influence of knowledge management (KM) on performance has been an enduring research theme in organizational theory and management. KM is particularly an important strategic capability that organisations need to develop and deploy in the present knowledge economy. The dynamic nature of the global business environment led to liberalization of the banking sector in 1995 with inherent lifting of exchange controls (CBK, 2012). In addition, these changes have led banks to rationalize their products and services and examine the role of KM in improvement of competitiveness. Compared to Kenya, the situation in Somalia is characterized with less developed financial sector from a regulatory perspective arising from the fragile nature of the country partly due to the emergence of terrorist organisations intent on destabilization of the young democracy.

Okira and Ndungu (2013) identified adoption of Automated Teller Machines, smart cards, internet and mobile banking as new innovations in the Commercial banks, which raises a strong case for a KM approach to management of the banking industry. However, KM is supported by both structural and cultural systems that should be aligned with strategic goals leading to sustainable competitive advantage. 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. Consequently, the dynamic nature of the global business environment has led commercial banks to rationalize their products and processes as well as examine the role of KM in improvement of performance (CBK, 2012).

### Knowledge Management

Knowledge Management (KM) is the new era socio-technological application of knowledge in critical planning, appraisal, decision making, evaluation and redesign of firm's operative systems (Kipchumba, Chepkuto, Nyaoga & Magutu, 2010). Knowledge-based assets or resources such as patents provide heterogeneous capabilities that give each company its unique character and are the essence of competitive advantage (Liu & Wei, 2009). KM represents a deliberate and systematic approach to ensure full utilization of organization's knowledge base, coupled with the potential of individual skills, competences, thoughts, innovations and ideas to create a more efficient and effective organization (Dalkir, 2005). It has also been defined as a conscious effort to get the right knowledge to the right people at the right time so that it can be shared and put into action (Aziri, Veseli & Ibraimi, 2013).

Studies have shown that knowledge management process comprising conversion, transfer and application, is an important tenet of KM. Extant researchers (Mohrman, Finegold & Mohrman, 2003; Abdul, Yahya, Beravi & Wah, 2008; Yusoff & Daudi, 2010) identified knowledge conversion, knowledge transfer and knowledge application as key dimensions of KM whose integration can improve firm's performance. It has also been noted that any knowledge transferred between individuals does not only benefit the organization but also tends to improve competence in both the individuals that are involved in the process (Syed-Ikhsan & Rowland, 2004). Lin, Seidel, Shahbazpour and Howell (2013) revealed that technical design knowledge was predominantly transferred through activities, such as peer-to-peer or group discussions to solve problems, mentoring, and new product research.

### Organizational Performance

Understanding the determinants of firm performance has long been a key goal within organizational research (Short, McKelvie, Ketchen & Chandler, 2009) because performance is considered the most important criterion in evaluating organizations, their actions, and environments. For many organizations achieving improved performance is not only dependent on the successful deployment of tangible assets and natural resources but also on the effective management of knowledge (Lee & Sukoco, 2007).

In the last decade, the influence of knowledge management (KM) on performance has been an enduring research theme in organizational theory (Feng 2004; Gan, Ryan & Gururajan, 2006; Li & Seidel, 2013) providing empirical evidence that KM significantly affect performance (Choi &Lee 2002; Dröge, Claycomb

& Germain, 2003; Sabherwal & Sabherwal, 2005). Extant researchers (Mohrman, Finegold & Mohrman, 2003; Abdul, Yahya, Beravi & Wah, 2008; Yusoff & Daudi, 2010) identified knowledge conversion, knowledge transfer and knowledge application as key dimensions of KM whose integration can improve firm's performance.

Marques and Devece (2012) highlighted the need to extend empirical literature through the inclusion of mediating and moderating variables in the relationship between KM and performance in knowledge-intensive organizations while research has also revealed that KM cannot be effectively implemented without significant behavioural and cultural change in an organization (Akhavan, Jafari & Fathian, 2006; Lai & Ho, 2006; Rasula,Vukšić & Štemberger, 2012).

When organizational members subscribe to the organization's cultural norms and values, this bond them to the organization and increase their commitment to find new ways to help it succeed (Jones & Hill, 2009).

**Financial Institutions in Somalia**

Financial Institutions are considered as typical knowledge-intensive organizations where performance is driven and sustained by information and thus KM is a source of competitiveness (Shih, Chang & Lin, 2010). Banking is a typical knowledge-intensive industry that involves activities of knowledge exchange (service) rather than exchange of goods (Shih *et al*., 2010). In this case, knowledge creation and integration are key elements in value creation and a source of competitiveness for Commercial Banks. The banking sector in Somalia comprises of the Central Bank of Somalia (CBS), Commercial Banks and non-banking financial institutions. According to the CBS, as at 31st December 2017, the sector comprised of five Commercial Banks, twelve money remittance providers.

Though the performance of financial institutions in Somalia have been reported as having improved tremendously over the last five years (CBS, 2017) a critical analysis indicates that there has been heterogeneity in performance of different financial institutions. The dynamic nature of the global business environment has led commercial banks to rationalize their products and processes as well as examine the role of KM in improvement of performance (CBK, 2012).

This study partly responds to the call by Marques and Devece (2012) who highlighted the need to extend empirical literature through the inclusion of mediating and moderating variables in the relationship between KM and performance in various organisations. The study is also motivated by the previous empirical studies finding that KM cannot be effectively implemented without significant behavioural and cultural change in an organization (Akhavan, Jafari & Fathian, 2006; Lai & Ho, 2006; Rasula,Vukšić & Štemberger, 2012). We noted that scarce empirical literature exists in these areas in an African setting particularly Somalia and that empirical studies on the relationship between KM process and performance were scarce and was therefore still an areas of interest to scholars and practitioners.

Consequently, the two questions that we sought to answer were: First, *what is the relationship between knowledge management processes and performance of financial institutions in Somalia* (RQ1), and Second, *Does firm's culture moderate the relationship between knowledge management process and performance of financial institutions in Somalia?* (RQ 2).

**Theory and Hypothesis**

We drew from the resource based view of the firm and its variant the knowledge based view theory of the firm where knowledge is a strategic resource and KM a dynamic capability to anchor our study. We also used organisational learning theory to anchor knowledge transfer and application which is an absorptive capacity aspect of knowledge

**Resource-Based View Theory**

According to the resource-based view (RBV) theory, a firm may be perceived as an aggregation of resources which are translated by management into strengths and weaknesses of the firm where organizations gain sustainable competitive advantages by deploying valuable resources and capabilities that are inelastic in supply (Grunert & Hildebrandt, 2004).

A key ingredient of the theory of the firm is its attempt to explain performance heterogeneity among firms, an issue that has been in the focus of strategic management research over the years (Hughes & Morgan, 2007). The theory holds that companies gain sustainable competitive advantages by deploying valuable resources and capabilities that are inelastic in supply (Grunert & Hildebrandt, 2004). RBV focuses on characteristics of firm's resources that contribute to performance in form of competitive advantage. 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 internal configuration of strategically relevant resources. This theory defines organizational effectiveness 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 & McNamara, 2012).

It proposes that firm's resources must be evaluated on the basis of how valuable, rare, and hard they are for competitors to duplicate recognizing the strategic importance of social and behavioral interactions in conceivability of choice and implementation of organization's strategies integrating two perspectives; internal analysis of phenomena within a company, and external analysis of an industry and its competitive environment (Dess et al., 2012). A firm may therefore have firm-specific and valuable resources, but unless it has the capabilities to use those resources effectively, it may not be able to create a distinctive competence (Jones & Hill, 2009).

The resource-based view of a firm is suited for studying the effect KM process on performance. It proposes that knowledge related strategies adopted by an organization such knowledge conversion, transfer and application can be utilized in building and creating new resources and capabilities as well as strengthen the existing resources and capabilities of the company, thereby enhancing distinctive competences and performance of the enterprise. It particularly proposes that intangible resources such as knowledge asset and capabilities as KM processes can be used as source of sustainable competitive advantage.

**Knowledge-Based View of the Firm**

This theory suggests that innovative knowledge is what companies require to outperform others in an industry (Malik & Malik, 2008).It 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. Carlucci *et al*., (2004) contends that knowledge assets are as important for competitive advantage and survival, if not more important, than physical and financial assets. Knowledge and capabilities-based views in strategy have largely extended resource based reasoning by suggesting that knowledge is the primary resource underlying new value creation, heterogeneity, and competitive advantage (Barney, 2001; Felin & Hesterly, 2007).

KBV provides a relevant theory for underpinning KM, human capital repository and performance. This theory considers knowledge assets such as conversion, transfer and application as primary resources that can be used in strategic development of products, processes and markets within knowledge intensive organizations. In addition, this value creation process requires the abilities residing within and utilized by employees and managers so as to expose an organizations to technology boundaries that increase its capability to absorb and deploy knowledge assets. This theoretical proposition raises a conceptual implication on the need for human capital repository in mediating the effect of KM on performance. In this case, the propositions of KBV were used to inform the mediating variable in this study.

**Organizational Learning Theory**

This theory argues that, in order to be competitive in a changing environment, organizations must change their goals and actions to reach those goals (Janz & Prasarnphanich, 2003). In a learning organization, new ideas and information are infused by constantly scanning the external environments, hiring new talent and expertise when needed, and devoting significant resources to train and develop their employees (Kinicki & Kreitner, 2009). Moreover, employees' mistakes should be viewed as potential sources of new ideas and ways of doing things (Marquardt, 2011).

Organizations thus seek to use a range of authoritative sources, including knowledge held by individuals and within knowledge systems maintained by the organization in order to remain competitive. In this regard, knowledge related processes comprising conversion, transfer and application are crucial to ensuring sustainable performance of an organisation.

Strategic knowledge management ensures corporate strategic knowledge grows, learns and matures alongside its individual members. Marquardt (2011) considers the prime task of management in learning organizations as facilitating employees' experimentation and learning from experience enhanced by timely feedback and complete disclosure. Opportunities are created across the entire organization to develop knowledge, skills, and attitudes. A firm's absorptive capacity could therefore be enhanced through KM processes that allow acquisition, conversion and application of existing and new knowledge through addition of value to social capital while remaining competitive in the market.

Consistent with the reviewed literature we hypothesised that:

*$H_{01}$: Knowledge management process has no significant influence organisational effectiveness of financial institutions in Somalia.*

*$H_{02}$: Firm's culture has no significant moderating effect on the relationship between knowledge management and organisational effectiveness of Financial Institutions in Somalia.*

## METHODOLOGY

In this section a description of the design, population and sample, data collection instruments, data collection methods and analysis were presented.

### Design

Since we set out to examine the relationship between KM process and performance; and the moderating effect of culture on this relationship, an explanatory cross-sectional survey design as recommended by Saunders, Lewis and Thornhill (2009) was adopted. As noted by Saunders *et al*., (2007), explanatory study establishes causal relationships between variables. This study sought to establish how KM influenced the performance of financial institutions in Somalia. In addition, a cross-sectional study was used since the relationship of variables were measured at a specified time so as to describe the incidence of a phenomenon

### Population and Sample

The target population of this study comprised all employees from financial institutions in Somalia. Financial Institutions are stratified into four categories of Commercial Banks (5), Remittances (9), Insurance firms (2) and Microfinance Institutions (4) where 25 respondents were targeted from each organisation as indicated in Table 1.

**Table 1. Target Population and sample**

| Category | No. of institutions | Targeted department /sections | No. per department | Targeted Number | Total targeted population | Proportion (%) | Sample distribution |
|---|---|---|---|---|---|---|---|
| Commercial Banks | 5 | 5 | 5 | 25 | 125 | 25 | 56 |
| Remittances (Hawalas) | 9 | 5 | 5 | 25 | 225 | 45 | 100 |
| Insurance Institutions | 2 | 5 | 5 | 25 | 50 | 10 | 22 |
| Microfinance Institutions | 4 | 5 | 5 | 25 | 100 | 20 | 45 |
| **Total** | **20** | 5 | 5 | **25** | **500** | 100 | 223 |

**Sampling Procedure**

A census survey of all financial institutions in Somalia was conducted from which a design a sample of 223 was calculated proportionality allocated according to the number of financial institutions were studied. In choosing census survey, the practicalities and cost of undertaking a census, representativeness and the nature of the survey as well as population were considered. The unit of analysis were financial institution whereas the unit of observation were the employees of functional area in each institution. As see in Table 1, the five functional areas were identified in each institution comprising human resource, finance, marketing, information communication technology, and operations. These functional areas were considered to have the relevant information relating to KM processes, culture and organisational effectiveness.

In their book titled *'An introductory Analysis'* Singh and Masuku (2014) cited Yamane's (1967) formula for calculating samples, which is.

$$n = \frac{N}{1 + N(e^2)}$$

In this formula,

n = sample size;

N = total target population (which, in our case, is 500);

e = margin of error or level of precision of 5 percentage points (hence, 0.05).

The same formula was used in this study and a sample of 223 arrived as distributed in Table 1

**Data Collection Instrument**

Primary data was collected using a questionnaire. With regard to the effect of KM process on performance of financial institutions in Somalia, a structured questionnaire was administered to managers of the five functional areas identified in each institution. The closed-ended questions provided more structured responses that facilitated quantitative analysis, testing of hypothesis, and drawing of conclusions.

The questionnaire statements were anchored on a five-point Likert scale with 1= strongly disagree, 2=disagree, 3=somewhat agree, 4=agree and 5=strongly agree. The questionnaire was tested for both validity and reliability.

**Validity.** Factor analysis was used to establish construct validity for all of the variables employed in this study (Kerlinger & Lee, 2000). All of the items in the variables were subjected to factor analysis, and loaded in accordance with prior theoretical expectations. Confirmatory factor analysis (CFA) was conducted to test the instrument validity. CFA was done to describe variability among observed variables and correlated variables in terms of lower number of unobserved/latent variables called factors. According to Hare and

Neumann (2008), factor analysis helps in grouping variables with similar characteristics together. This helps in reducing a large number of variables for modelling purposes and to select subset variables from a large set, based on which original variables had the highest correlations with the factor. Squared factor loading indicate what percentage of the variance in the original variables is explained by a factor (Field, 2009).

The validity of the instruments was ensured by conducting empirical and theoretical literature reviews and identifying measures for the variables as used in previous studies and including as item measures for knowledge conversion, application transfer, and fro culture and organisational effectiveness.

**Reliability.** Reliability was evaluated using Cronbach's Alpha which measures the internal consistency and establishes if items within a scale measure the same construct. The questionnaire was pretested on 15 respondents who did not form part of the actual survey of bank employees. The index alpha was computed using SPSS and helped to measure the average of measurable items and its correlation. All the study variables: knowledge conversion, transfer, application, organisational culture and performance had a Cronbach alpha of at least 0.7 which was acceptable. This value is consistent with the observation by Marczyk, DeMatteo and Festinger (2005) that Cronbach Alpha value of 0.7 is the threshold for determining reliability, and by Kline's (2000) assertion that a scale of $0.7 \leq \alpha < 0.9$ is good and a scale of $0.6 \leq \alpha < 0.7$ is acceptable.

**Data collection procedures**

The questionnaire was distributed to the respondents through drop-and-pick method upon obtaining approval from the chief executive officer (CEO) of each of the institutions. The questionnaires for each institution were left in the CEOs office who then caused them to be distributed and filled. At the time of dropping the questionnaires, we requested to pick them after two weak and that we would call at the end of the first week to check on the progress. Our requests were accepted. The filled questionnaires were then collected when the CEO office confirmed that the questionnaires had been completed. In the intervening period, we called to check on progress of the completion. In order to address incidences of non-response which would have resulted in less responses compared to the design sample of 223, we distribute 300 questionnaires here the additional 77 were also proportionately allocated to the 20 institutions.

**Data Processing and Analysis**

Once the data had been collected, it was prepared for statistical analysis. Validation and checking was done after the questionnaires were received from the field. The responses were then checked for clarity, legibility, relevance and appropriateness and the questionnaires subsequently edited for completeness and consistency. Coding was then done on the basis of the location of the respondents. Quantitative data was analyzed using descriptive and inferential statistics. Descriptive results comprised percentages, frequencies, means, and standard deviations. Further, correlation and regression analysis results were used for testing hypotheses and drawing conclusions.

## RESULTS AND DISCUSSION

Out of the 300 questionnaires that were distributed, 244 were returned and found to be suitable for data collection. This represents 81.33% response rate which was satisfactory. The distribution of the responses was Commercial banks (n=71, 29.1%), Remittances (*Hawalas)* (n=100, 41%), Insurance Companies (n=27, 11%) and Microfinance Companies (n=46, 18.9%)

**Distribution of respondents by gender, length of service and department**

Frequency counts were done on the responses and their distribution is presented in Table 2.

**Table 2. Distribution of respondents by gender, length of service and department**

| Variable | Attribute | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Gender | Male | 127 | 52 | 52 | 52 |
| | Female | 117 | 48 | 48 | 100 |
| | Total | 244 | 100 | 100 | |
| ***Length of service*** | 3 years and below | 48 | 19.7 | 19.7 | 19.7 |
| | 4-7 years | 84 | 34.4 | 34.4 | 54.1 |
| | 8-11 years | 69 | 28.3 | 28.3 | 82.4 |
| | 12 years and above | 43 | 17.6 | 17.6 | 100 |
| | **Total** | **244** | **100** | **100** | |
| **Department** | Finance manager | 34 | 13.9 | 13.9 | 13.9 |
| | Human resource manager | 55 | 22.5 | 22.5 | 36.5 |
| | Marketing manager | 63 | 25.8 | 25.8 | 62.3 |
| | ICT manager | 59 | 24.2 | 24.2 | 86.5 |
| | Operations manager | 28 | 11.5 | 11.5 | 98 |
| | Other | 5 | 2 | 2 | 100 |
| | **Total** | **244** | **100** | **100** | |

There were more men than women in the financial institutions though the difference was only 4 percent points in favour of men. This result suggested that there was almost parity in the representation of gender in the work place. Further, most respondents had worked in the institutions for between 4 – 11 years (62.7%). This implied that they were in a position to provide reliable information concerning their operations. The respondents were almost equally distributed across human resource (n=55), marketing (n=63) and ICT (n=59) departments with the majority being marketing managers.

**State of knowledge management processes, organisational culture and effectiveness**

The status of KM processes (knowledge, conversion application and transfer is presented in Table 3.

**Table 3. Status of KM processes, culture and organisational effectiveness**

Descriptive Statistics

| Variable | N Statistic | Mean Statistic | Std. Dev Statistic | Skewness Statistic | Skewness Std. Error | Kurtosis Statistic | Kurtosis Std. Error |
|---|---|---|---|---|---|---|---|
| Knowledge conversion | 244 | 3.85 | 0.55 | -1.422 | 0.156 | 4.345 | 0.31 |
| Knowledge transfer | 244 | 3.86 | 0.55 | -1.074 | 0.156 | 2.121 | 0.31 |
| Knowledge application | 244 | 3.89 | 0.88 | 5.801 | 0.156 | 57.613 | 0.31 |
| Firm's culture | 244 | 3.88 | 0.46 | -1.243 | 0.156 | 4.228 | 0.31 |
| Organisational effectiveness | 244 | 3.91 | 0.60 | -0.996 | 0.156 | 1.483 | 0.31 |

As seen from Table 3, the practice of knowledge conversion, knowledge transfer and knowledge application moderate since the mean on a scale of 1 to 5 was above 3.80 but below 4 (Agreement). In addition, this implies that the respondents responses were in between somewhat agree (M=3.00) and Agree (M=4.00). The results also imply there was homogeneity in the responses on all the variables since the standard deviations from the mean were less than unity (SD<1.00) for all the variables. The implication of these results is that

there is need to improve the KM processes so that they have composite score of 4 and above. It was also found that the organisations were only moderately effective (M=3.91, SD = 0.60) while organisational culture was also moderately satisfactory (M=3.88, SD= 0.46)

Besides the foregoing composite mean scores, sample responses knowledge conversion (KC) which comprised four sub-variables socialisation (SOC), externalisation (EXT), internalisation (INT) and combination (COM) are *"The institution's processes enhances understanding and translating of knowledge (explicit) into application (tacit knowledge) by organization staffs"* (INT: M=3.90, SD=0.91), *"There is use of information technology in editing or processing information"* (COM: M=3.49, SD=1.08). The others were, *"Organization members are able to elicit and translate knowledge of customers into a readily understandable form"* (EXT: M=4.02, SD=0.88), *"Organization members are able to articulate their ideas or images, in words, metaphors, analogies into a readily understandable form"* (M=3.91, SD=0.91), and that *"Knowledge and experiences are shared through interaction with employees in this organization"* (SOC: M=3.77, SD=0.79).

Similarly, examples of knowledge transfer statements on which the respondents indicated their level of agreement were *"Useful information is disseminated among the banks staff"* (KT: M=3.89, SD=0.94) and *"There is continuous capturing of information"* (KT: M=3.97, SD=1.02). Lastly, one of the knowledge application statements was *"Organizational leadership has pioneered and driven KM adoption and use"* (KA: M=3.55, SD=0.99).

**Relationship between Knowledge management process, firm culture and organisational effectiveness**

The relationship between all the study variables, knowledge management process comprising knowledge conversion, transfer, and application; culture and organisational effectiveness was assessed using correlation analysis and the results were shown in Table 4.

**Table 4. Relationship between KM processes, firm culture and organisational effectiveness**

| Variables | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Knowledge conversion | 1 | | | | | |
| Knowledge transfer | .597** | 1 | | | | |
| | .000 | | | | | |
| Knowledge application | .239** | .341** | 1 | | | |
| | .000 | .000 | | | | |
| Firm's culture | .471** | .505** | .355** | 1 | | |
| | .000 | .000 | .000 | | | |
| KM Processes | .684** | .785** | .790** | .569** | 1 | |
| | .000 | .000 | .000 | .000 | | |
| Organisational | .411** | .533** | .369** | .574** | .560** | 1 |
| effectiveness | .000 | .000 | .000 | .000 | .000 | |
| | 244 | 244 | 244 | 244 | 244 | 244 |

Knowledge transfer had the strongest positive significant relationship, followed by knowledge conversion and lastly knowledge application (KC: r = .411, p < 0.001; KT: r = 0.533, p < 0.001, KA: r = .369, p < 0.001; all correlations had p < 0.05). Further, firm culture was significantly related with KM processes (p<.05), the strongest correlation was with knowledge transfer (r=0.505, p < 0.001) and the lowest was with knowledge application (r=0.355, p<0.001). Overall KM process was significantly related with firm culture and organisational effectiveness (Culture: r=0.599, p<0.001; OE: r = 0.560, p <0.001) while the relationship between firm culture and organisational effectiveness was also statistically significant (r = .574, p=0.001). Further the strong

**Influence of KM process and firm culture on organisational effectiveness**

In order to determine the influence of KM processes, namely knowledge conversion, knowledge transfer and knowledge application on organisational effectiveness and the moderating effect of firm culture on this relationship, two linear regression models were specified and coefficients estimated. Model 1 was for the regression of organisational effectiveness on knowledge conversion, transfer and application while Model 2 was for the regression of organisational effectiveness on the combined KM processes (KP) and culture. Further, Model 3 was for the regression of KM processes, firm culture and the interaction term (KP*culture) on organisational effectiveness. The results are presented in Table 5 (Model summary), Table 6 (Model fit) and Table 7 (Coefficients).

**Table 5. Model summary**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .579[a] | .335 | .327 | 2.930 |

a. Predictors: (Constant), Knowledge application mean, Knowledge conversion, Knowledge transfer

| | | | | |
|---|---|---|---|---|
| 2 | .652[a] | .425 | .415 | 2.731 |

a. Predictors: (Constant), Firm's culture sum, Knowledge application mean, Knowledge conversion, Knowledge transfer

| | | | | |
|---|---|---|---|---|
| 3 | .658[a] | .433 | .421 | 2.718 |

a. Predictors: (Constant), int_term, Knowledge conversion, Knowledge application mean, Knowledge transfer, Firm's culture sum

Knowledge management (KM) processes comprising Knowledge Conversion (KC), Knowledge application (KA), and Knowledge transfer (KT) explained 33.5 % ($R^2$ = 0.335) of variation on organizational effectiveness. Further, as shown in Model 2, the introduction of culture (moderator variable) resulted in an increase in $R^2$ of 0.425. The introduction of the interaction variable (Model 3) had $R^2$ = 0.433; see the results min Table 6.

**Table 6. Model fit**

**ANOVA[a]**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 1037.937 | 3 | 345.979 | 40.299 | .000[b] |
| | Residual | 2060.473 | 240 | 8.585 | | |
| | Total | 3098.410 | 243 | | | |

a. Dependent Variable: Performance

b. Predictors: (Constant), Knowledge application mean, KC SUM, Knowledge transfer

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 (with Moderator) | Regression | 1316.246 | 4 | 329.062 | 44.129 | .000[b] |
| | Residual | 1782.164 | 239 | 7.457 | | |
| | Total | 3098.410 | 243 | | | |

a. Dependent Variable: Performance

b. Predictors: (Constant), Firm's culture sum, Knowledge application mean, KC SUM, Knowledge transfer

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 (with interaction term) | Regression | 1340.527 | 5 | 268.105 | 36.299 | .000[b] |
| | Residual | 1757.883 | 238 | 7.386 | | |
| | Total | 3098.410 | 243 | | | |

a. Dependent Variable: Performance

b. Predictors: (Constant), int_term, Knowledge conversion, Knowledge application mean, Knowledge transfer, Firm's culture sum

All the three models were significant at 5% level of significance with Model 1 (F=40.299, p<0.001), Model 2 (F=44.129, p<0.001) and Model 3 (F=36.299, p<0.001). The coefficients were shown in Table 7.

**Table 7. Coefficients of regression**

**Coefficients[a]**

| Model | | Unstandardized Coefficients B | Unstandardized Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | 7.074 | 1.583 | | 4.468 | .000 |
| | Knowledge conversion | .230 | .114 | .132 | 2.010 | .046 |
| | Knowledge transfer | .414 | .073 | .384 | 5.665 | .000 |
| | Knowledge application | .837 | .228 | .206 | 3.672 | .000 |
| a. Dependent Variable: Performance | | | | | | |
| 2 (Moderator) | (Constant) | 2.255 | 1.673 | | 1.347 | .179 |
| | Knowledge conversion | .069 | .110 | .040 | .628 | .531 |
| | Knowledge transfer | .300 | .071 | .279 | 4.252 | .000 |
| | Knowledge application | .543 | .218 | .134 | 2.493 | .013 |
| | Firm's culture | .952 | .156 | .367 | 6.109 | .000 |
| a. Dependent Variable: Performance | | | | | | |
| 3 (int_term) | (Constant) | -5.844 | 4.767 | | -1.226 | .221 |
| | Knowledge conversion | .232 | .141 | .133 | 1.639 | .103 |
| | Knowledge transfer | .441 | .105 | .409 | 4.211 | .000 |
| | Knowledge application | 1.372 | .506 | .338 | 2.711 | .007 |
| | Firm's culture | 1.689 | .435 | .651 | 3.883 | .000 |
| | int_term | -.209 | .115 | -.549 | -1.813 | .071 |
| a. Dependent Variable: Organisational effectiveness | | | | | | |

Firm culture did not significantly moderate the relationship between KM processes and organisational effectiveness at 5% level of significance (int-term: t = 1.813, p = 0.071 > 0.05). Instead, the moderating effect was negative and only significant at p <0.1

The model linking KM processes with organisational effectiveness (Model 1) was significant at p < 0.001, specifically, Model 1 (F=40.299, p<0.001), Model 2 (F=44.129, p<0.001) and Model 3 (F=36.299, p<0.001). This implies that the model was significant at 5% level of significance (p <0.05). The coefficients suggested that all the KM processes (KP), namely knowledge conversion (KC), knowledge transfer (KT) and knowledge application (KA) had a positive and significant influence on organisational effectiveness (KC: t = 2.010, p = 0.046; KT: t = 5.665, p < 0.001; KA: t = 3.672, p = 0.001; all p < 0.05). All the correlations between KM processes and firm culture; and with organisational effectiveness were positive and significant.

Since the effect of firm culture on organisational effectiveness was significant (t=6.109, p<0.001) and that the model linking KM processes and organisational effectiveness was also significant, the moderating effect of firm culture on the relationship between KM processes and organisational effectiveness was tested and the significance of the interaction term (in_term) between KM process (KP) and culture examined. KP was the composite score of knowledge conversion, knowledge transfer and knowledge application.

## CONCLUSION AND RECOMMENSTION

Based on the findings of this study, hypotheses were tested using t-statistic associated with regression coefficients. The first null hypothesis ($H_{01}$) of this study was:

*$H_{01}$: Knowledge management process has no significant influence performance of financial institutions in Somalia*

This hypothesis was rejected because all the three KM processes, conversion, transfer and application, had positive and significant influence on organisational effectiveness of financial institutions in Somalia at 5% level of confidence.

Further, the second null hypothesis ($H_{02}$) to be tested was

*Firm culture has no significant moderating effect on the relationship between knowledge management and organisational effectiveness of financial institutions in Somalia.*

This hypothesis was accepted because the moderating effect though negative was insignificant.

The results of this study therefore lead to a conclusion that Knowledge management processes (conversion, transfer and application) significantly influence organisational effectiveness of financial institutions in Somali at 5% level and that organisational culture does not significantly affect moderate this relationship at 5% level of significance. However the negative moderating effect is significant at 10% level of significance ($t = 1.813$, $p = 0.071 < 0.1$). Further, knowledge transfer had the greatest influence on organisational effectiveness, this was followed by knowledge application, and lastly, knowledge conversion.

Drawing form these findings it was recommended that the financial institutions in Somalia intensify their KM processes namely transfer, application and conversion in this order of priority since this is the order in which they significantly influenced effectiveness from the greatest to the least significant. Further, the culture needs to be more supportive of the knowledge processes because the process were found to significantly influence organisational effectiveness.

**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*, 26, 15–27.

Akhavan, P., Jafari, M. & Fathian, M. (2006). Critical Success Factors of Knowledge Management Systems: A Multi-Case Analysis. *European Business Review*, 18 ( 2), 97-113.

Aziri, B., Veseli, N., & Ibraimi, S. (2013). Human Resources and Knowledge Management. *Active Citizenship by Knowledge Management & Innovation: Proceedings of the Management, Knowledge and Learning International Conference 2013*. To KnowPress.

Barney, J. B. (2001).Is the Resource-Based View a Useful Perspective for Strategic Management Research? Yes. *Academy of Management Review*, 26, 41–56.

Carlucci, D., Marr, B., & Schiuma, G. (2004). The Knowledge Value Chain: How Intellectual Capital Impacts on Business Performance. *International Journal of Technology Management*, 27 9(6/7) 575-590.

Dalkir, K. (2005). *Knowledge Management in Theory and Practice*. Oxford, London: Elsevier Butterworth–Heinemann.

Dess, G. G., Lumkin, G. T., Eisner, A. B. & McNamara, G. (2012). *Strategic Management: Text and Cases*. New York: McGraw-Hill.

Dröge, C., Claycomb, C. & Germain, R. (2003). Does Knowledge Mediate the Effect of Context on Performance? Some Initial Evidence. *Decision Science.* 34 (3), 541–568.

Felin, T., W. & Hesterly, S. (2007). The Knowledge-Based View, Nested Heterogeneity, and New Value Creation: Philosophical Considerations on the Locus of Knowledge. *Academy of Management Review*, 32 (1), 195-218.

Feng, K., Chen, E. T. & Liou, W. (2005). Implementation of Knowledge Management Systems and Firm Performance: An Empirical Investigation. *Journal of Computer Information Systems,* 145 (2), 92-104.

Field, A. (2009). *Discovering Statistics using SPSS (*2nd ed.). London, UK: Sage

Gan, G. G. G., Ryan, C. & Gururajan, R. (2006). The Effects of Culture on Knowledge Management Practice: A Qualitative Case Study of MSC Status Companies. *Kajian Malaysia,* XXIV (1&2), 97 - 138.

Grunert, K. G., & Hildebrandt, L. (2004). Success Factors, Competitive Advantage and Competence Development. *Journal of Business Research,* 57, 459-461.

Hare, R. D. & Neumann, C. S. (2008). Psychopathy as a Clinical and Empirical Construct. *Annual Review of Clinical Psychology*, 4, 217–246.

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,* 36 (4), 503-517.

Janz, B. D. & Prasarnphanich, P. (2003). Understanding the Antecedents of Effective Knowledge Management: The Importance of a Knowledge-Centered Culture. *Decision Sciences,* Vol. 34 (2), 351-385.

Jones, G. R. & Hill, C. L. (2009). *Strategic Management: An Integrated Approach*. Boston, USA: Houghton Mifflin

Kerlinger, F. N., & Lee, H. B. (2000). Foundations of Behavioral Research (4th ed.). New York, USA: Harcourt College Publishers.

Kipchumba, S., Chepkuto, K. S., Nyaoga, B. R. & Magutu, P. O. (2010). Knowledge Management as Source of Sustainable Competitive Advantage Comparative Assessment of Egerton University Farms and Private Commercial Farms. *AJBUMA Publishing, African Journal of Business and Management,* 1, 84-95.

Kline, P. (2000). *The Handbook of Psychological Testing.* Psychology Press

Lee, H. & Choi, B. (2003). Knowledge Management Enablers, Processes, and Organizational Performance: An Integrative View and Empirical Examination. *Journal of Management Information Systems*, 20, (1), 179-228.

Lee, L.T. & Sukoco, B. M. (2007). The Effects of Entrepreneurial Orientation and Knowledge Management Capability on Organizational Effectiveness in Taiwan: The Moderating Role of Social Capital. *International Journal of Management,* 24 (3), 549 -73.

Lin, I. C., Seidel, R., Shahbazpour, M. & Howell, D. (2013). Knowledge Management in Small and Medium-Sized Enterprises: A New Zealand Focus. *Department of Mechanical Engineering*, *University of Auckland*, Vol.11.

Liu, C. & Wei, K. (2009). Knowledge Management and Performance among Top Emerging Market Companies. *Communications of the IBIMA*, 7, 36-43.

Malik, K. P. & Malik, S. (2008). Value Creation Role of Knowledge Management: a Developing Country Perspective. *The Electronic Journal of Knowledge Management,* .6 (1), 41 – 48.

Marczak, G. R., DeMatteo, D., & Festinger, D. (2005). Essentials of Research Design and Methodology. Hoboken, N.J.: John Wiley & Sons

Marquardt, M. J. (2011). *Building the Learning Organization; Achieving Strategic Advantage through a Commitment to Learning* (3rd ed.). Boston, USA: Nicholas Brealey Publishing.

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*, 20 (1/2), 7–38.

Okira, K., & Ndungu, J. (2013). The Impact of Mobile and Internet Banking on Performance of Financial Institutions in Somalia. *European Scientific Journal*, 9 (13), 1857 – 7881. Retrieved Aril 6, 2020 from https://profiles.uonbi.ac.ke/kennedyokiro/files/the_impact_of_mobile_and_internet_banking_on_performance_of_financial_institutions_in_kenya.pdf

Rono, C. (2011). Knowledge Management Practices by Commercial Banks in Somalia. *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.* 36 (4), 531–567.

Saunders, M., Lewis, P. & Thornhill, A. (2007). *Research Methods for Business Students* (4th ed.). Harlow, UK: Prentice Hall.

Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research Methods for Business Students* (5th ed.). London: Prentice Hall.

Shih, K. H., Chang, C. J. & Lin, B. (2010). Assessing Knowledge Creation and Intellectual Capital in Banking Industry. *Journal of Intellectual Capital*, 11 (1), 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*, 3, 47–65.

Syed-Ikhsan, S. & Rowland, F. (2004). Knowledge Management in Public Organizations: A Study on the Relationship between Organizational Elements and the Performance of Knowledge Transfer. *Journal of Knowledge Management*, 8 (2), 95-111.