

# European Journal of Business and Strategic Management (EJBSM)

THE EFFECT OF EXTERNAL ENVIRONMENT AND FIRM SIZE  
ON THE RELATIONSHIP BETWEEN KNOWLEDGE  
MANAGEMENT AND COMPETITIVE ADVANTAGE

George Kinyanjui Kimani and Professor Martin Ogutu



Strategy

## THE EFFECT OF EXTERNAL ENVIRONMENT AND FIRM SIZE ON THE RELATIONSHIP BETWEEN KNOWLEDGE MANAGEMENT AND COMPETITIVE ADVANTAGE

<sup>1\*</sup>George Kinyanjui Kimani

<sup>1</sup>PhD Candidate: University of Nairobi

\*Corresponding Author's Email: [gkiwetash@gmail.com](mailto:gkiwetash@gmail.com)

<sup>2</sup>Professor Martin Ogutu

Associate Professor: School of Business, University of Nairobi

### Abstract

The purpose of this study was to investigate the effect of external environment and firm size on the relationship between knowledge management and competitive advantage.

Empirical literature indicates that the external environment of an organization has an impact on an organization's effectiveness, efficiency; relevance and financial viability with higher impacts on the relevance performance indicators. Studies on the effect of firm size on firm competitive advantage have generated mixed results ranging from those supporting a positive relationship among these variables to those opposing it. Larger firms are less productive but more profitable. The absolute firm size plays an important role in explaining profitability. Empirical results show that there is a positive correlation between knowledge management and competitive advantage knowledge acquisition, knowledge storage, knowledge creation, knowledge sharing, and knowledge implementation have significant factor loading on knowledge management; and also productivity, financial performance, staff performance, innovation, work relationships, and customer satisfaction have significant factor loading on organizational performance. Results also suggest that knowledge management practices directly influence the organizational performance. Effective knowledge management plays an increasingly important role in sustaining the competitive advantage of firms in the new economy. Competitive advantage is brought about through developing and putting into effect innovative business solutions that recycle applicable knowledge. Contextual gaps exist as most of the studies mainly explored the context of advanced, developed countries while, at the same time, little empirical evidence has been found in investigating a dynamic capability view of knowledge management.

Future studies should attempt to establish whether the propositions stated in this paper hold empirically. In addition, future studies should also attempt to establish the nature of relationship between Knowledge management, external environment and competitive advantage. Is the relationship direct and significant, indirect-intervening or indirect- moderating? Future studies can help to conclude on these questions.

**Keywords:** *Knowledge management, external environment, firm size, organizational performance, competitive advantage*

## **1.0 INTRODUCTION**

Today's emerging age of knowledge economy and knowledge management has created a new breed of company employees, whose intellectual capital is the accumulated experience, commitment and potential for developing and maintaining the learning organization (Tripathi, 2010). Generally speaking, the environment is anything outside a firm that may affect a firm's activities. Duncan (2002) defined environment from firm decision making; he stated the relevant physical and social factors outside the boundary of a firm. The external environment is normally divided into two categories. One is general environment and another is task environment. The task environment more directly interacts with the business operation and covers the forces relevant to an individual firm within an industry.

Knowledge management means identifying, developing, and leveraging knowledge across the firm with the purpose of achieving competitive advantage (Alavi & Leidner, 2011). Knowledge is increasingly being recognized as the new strategic imperative of firms. The most established paradigm is that knowledge is power. Evidently, there is a strong competition among firms and rapid changes in business surroundings. Therefore, the firms start thinking of developing their performance and processes. In this regard, Knowledge Management (KM) processes have turned out nowadays to become a firm strategic resource to the extent in which KM is viewed as a base of success or failure (Karadsheh, 2013). The importance of knowledge management and its contribution to firm performance has been the subject of many studies and is increasingly gaining recognition worldwide.

The purpose of this paper is to review literature of external environment, firm size, knowledge management, competitive advantage and establish the knowledge gaps. These knowledge gaps will enable the researcher to identify the objectives of future research. Future studies should attempt to establish whether the propositions stated in this paper hold empirically. In addition, future studies should also attempt to establish the nature of relationship between Knowledge management, external environment and competitive advantage. Is the relationship direct and significant, indirect-intervening or indirect- moderating? Future studies can help to conclude on these questions.

## **2.0 KNOWLEDGE MANAGEMENT AND COMPETITIVE ADVANTAGE**

### **2.1 Knowledge Management**

Nonaka and Takeuchi proposed to conceptualize the process of knowledge creation in organizational settings by the SECI model that represents the four modes of knowledge creation socialization, externalization, combination and internalization (Nonaka & Takeuchi, 1995). The SECI model involves the following processes: Socialization: the tacit to tacit transfer, refers sharing tacit knowledge through social communication, such like apprenticeship, brainstorming. Externalization: tacit to explicit transfer, refers materializing the tacit knowledge into explicit, such like documenting. Combination: explicit to explicit transfer refers combining of various elements of explicit knowledge. For example: Prototyping and Internalization: explicit to tacit transfer refers learning from explicit knowledge, reading documents or studying the prototypes.

## 2.2 Competitive Advantage

Competitive advantage is refers to the company's superiority, in terms of ensuring a reduced cost or a better product or service, that differentiates itself through its qualities from other products (Porter, 1980). Company's competitive advantage is measured when it can create more economic value than other rival companies. Economic value is the difference between perceived benefits gained by a buyer who purchases goods or services of a company and the economic cost of these products and services. Therefore, the size of a company's competitive advantage is the difference between the economic value that the company makes and that of its rivals (Barney & Hesterly, 2006).

## 2.3 Relationship between Knowledge Management and Competitive Advantage

Empirical results show that there is a positive correlation between knowledge management and competitive advantage (Kamya et al, 2010), knowledge acquisition, knowledge storage, knowledge creation, knowledge sharing, and knowledge implementation have significant factor loading on knowledge management; and also productivity, financial performance, staff performance, innovation, work relationships, and customer satisfaction have significant factor loading on organizational performance. Results also suggest that knowledge management practices directly influence the organizational performance (Mohamad *et al*, 2013).

Technical KM resource is negatively related with competitive advantage, and KM capability's significantly related with competitive advantage (Chuang, 2014).Further, innovative capacity fully mediates the relationship of knowledge management and competitive advantage (Jyoti *et al.*, 2014).The ability of a firm to harness knowledge management and continuous learning from the external environment is now believed to be a major source for achieving a sustainable competitive advantage (Waddell & Stewart, 2008; Werret *et al.*, 2009; Zack *et al.*, 2009).When market-based knowledge is appropriately responded to, it demonstrates the competitiveness of the firm. In addition, this is an indication that competitive advantage is best achieved through a combination of knowledge-based resources (Kamya *et al.*, 2010). The findings showed that there was a positive correlation between knowledge management and competitive advantage; which relationship is greatly enhanced by the interaction impact of market orientation (Kamya *et al.*, 2010).

Mohamad *et al* (2013) investigated the influence of knowledge management practices on organizational performance in small and medium enterprises (SMEs) using structural equation modeling (SEM). A number of 282 senior managers from these enterprises were chosen using simple random sampling and the data were analyzed with structural equation model. The results showed that knowledge acquisition, knowledge storage, knowledge creation, knowledge sharing, and knowledge implementation have significant factor loading on knowledge management; and also productivity, financial performance, staff performance, innovation, work relationships, and customer satisfaction have significant factor loading on organizational performance. Finally, the results of this study suggest that knowledge management practices directly influence the organizational performance of SMEs.

### **3.0 KNOWLEDGE MANAGEMENT, EXTERNAL ENVIRONMENT AND COMPETITIVE ADVANTAGE**

#### **3.1 External Environment**

External environment consists of a remote environment, industrial environment, and the operating environment (Pearce & Robinson, 2013). Dess, Lumpkin and Taylor (2012), said that the company's external environment is classified into two, namely the general environment (population demographics, socio-cultural, political and legal, technological, economic factors) and competitive environment.

#### **3.2 Knowledge Management, External Environment and Competitive Advantage**

Empirical literature indicates that the external environment of an organization has an impact on an organization's effectiveness, efficiency, relevance and financial viability with higher impacts on the relevance performance indicators (Kinyua et al., 2014). The four factors Political, Economic, Social, and Technological are the key factors that can determine the performance. The result showed that the Political environment is somewhat insignificant but other all three factors are the key factors which show the significant results. Hence we can say that managers have to keep these factors in mind to perform better (Aazir & Qazi, 2012). External business environment (political, economic, socio-cultural, technological, etc.) has impact on organizational performance (effectiveness, efficiency, increase in sales, achievement of corporate goals etc.). Thus, organizations should pay more attentions to their environment by doing periodic scanning (Adeoye & Elegunde, 2012).

Kinyua *et al* (2014) examined the impact of the external organizational environment on performance of community-based HIV and AIDS organizations in Nairobi County, Kenya. The authors empirically assessed the relationship using survey data from 163 Community Based HIV and AIDS Organizations, in Nairobi County, Kenya between January and March 2013. The study findings indicated that the external environment of an organization has an impact on an organization's effectiveness, efficiency, relevance and financial viability with higher impacts on the relevance performance indicators.

Aazir and Qazi (2012) analyze the impact of Political, Economic, Social and Technological macro environmental forces on Pizza fast food industry in Rawalpindi / Islamabad and suggestions for improvement in their performance. This research work is based on co-relational (survey) research design and instrument used for research is interview. PEST analysis was selected to analyze PEST forces in fast food industry. The paper provides empirical data to identify those factors that play key role in improvement of performance. In this study we found that the four factors P, E, S, and T are the key factors that can determine the performance of the fast food industry. The result showed that the Political environment is somewhat insignificant but other all three factors are the key factors which show the significant results. Hence we can say that managers have to keep these factors in mind to perform better.

Ogundele (2005) found that the external environment goes a long way to determine and define the opportunities for a firm. This is because an expanding economy provides operational scope for the firm existence as well as for the establishment of new ones. However, a period of recession can bring about failures and probably liquidation of the firm. It is of paramount

importance that the management should be able to distinguish between short-run phenomena and more fundamental changes in its assessment of the overall economy.

Alkali (2012) examined the influence of external environmental factors on the performance of small business manufacturing enterprises of Bauchi state, Nigeria. The instrument used was structured questionnaire, to collect data from the sample size of 302 respondents that participated in the study. Data were analyzed using descriptive statistics and multiple regression analysis. Results from the study revealed that, capital access and government support were found to be significantly related to business performance of the enterprises.

## **4.0 KNOWLEDGE MANAGEMENT, FIRMS SIZE AND COMPETITIVE ADVANTAGE**

### **4.1 Firm Size**

Firm size describes the characteristic of an organization in terms of number of employees, capital base and its competitiveness in the market. The firm size measurement can be carried out in several methods namely through sales, employees, assets or value add features. According to (Kaen & Baumann, 2003) in fact measuring the employees enrolment and value added measurement are a better choice in measuring the size of the firm in organizational theories rather than sales or assets.

### **4.2 Knowledge Management, Firm Size and Competitive Advantage**

At the most fundamental level, firms create competitive advantage by perceiving or discovering new and better ways to compete in an industry and bringing them to market, which is ultimately an act of innovation. Innovations shift competitive advantage when rivals either fail to perceive the new way of competing or are unwilling or unable to respond. There can be significant advantages to early movers responding to innovations, particularly in industries with significant economies of scale or when customers are more concerned about switching suppliers. The most typical causes of innovations that shift competitive advantage are the following: new technologies, new or shifting buyer needs, the emergence of a new industry segment, shifting input costs or availability and changes in government regulations.

Molina, Pino and Rodrigues (2014) reduce the heat to light ratio of this discussion and argues that competitive advantage and performance are one and the same thing. Molina et al (2004) suggested that the following indicators may be used to measure the level of competitive advantage: Market share, Profits, Returns, Technological provision, Financial management, Quality of products-services, After sales services, Manager's educational background, Customer loyalty, Supplier loyalty, Location of establishment, Employees' commitment and loyalty, Employees' professional know-how and Firm's reputation.

Studies on the effect of firm size on firm profitability have generated mixed results ranging from those supporting a positive relationship among these variables to those opposing it. Additionally, under the same sample of the firms, this relationship may be positive over some firm size ranges and negative for others. Beside previously presented theoretical explanations, contradictory empirical results could be a result of different used samples, industry groups, time horizons, indicators and business environment. Due to all stated above, some of the studies will be subsequently presented together with their main empirical results.

A positive relationship between firm size and profitability was found by Vijayakumar and Tamizhselvan (2010). In their study, which was based on a simple semi-logarithmic specification of the model, the authors used different measures of size (sales and total assets) and profitability (profit margin and profit on total assets) while applying model on a sample of 15 companies operating in South India. Papadognas (2007) conducted analysis on a sample of 3035 Greek manufacturing firms for the period 1995-1999. After dividing firms into four size classes he applied regression analysis which revealed that for all size classes, firms' profitability is positively influenced by firm size. Using a sample of 1020 Indian firms, Majumdar (2012) investigated the impact that firm size has on profitability and productivity of a firm. While controlling for other variables that can influence firm performance, he found evidence that larger firms are less productive but more profitable. Lee (2009) examined the role that firm size plays in profitability. He used fixed effect dynamic panel data model and performed analysis on a sample of more than 7000 US publicly-held firms. Results showed that absolute firm size plays an important role in explaining profitability. However, this relationship was non-linear meaning that gains in profitability reduced for larger firms.

Amato and Burson (2007) tested size-profit relationship for firms operating in the financial services sector. The authors examined both linear and cubic form of the relationship. With the linear specification in firm size, the authors revealed negative influence of firm size on its profitability. However, this influence wasn't statistically significant. On the other hand, the authors found evidence of a cubic relationship between ROA and firm size. Using financial and economic data, Ammar *et al* (2003) examined the nature of the size-profitability relationship on a sample of electrical contractors for 1985-1996 period. Using a first-order autoregressive model built into the error term, the authors found a significant difference in terms of profitability between small, medium and large firms. Namely, they revealed that profitability drops as firms grow larger than \$50 million in sales. On a sample of a US manufacturing firms, Amato and Wilder (1985) tested size-profitability relationship in linear as well as quadratic form. However, the results of their analysis showed that there is no relationship between firm size and profit rate.

## **5.0 KNOWLEDGE MANAGEMENT, EXTERNAL ENVIRONMENT, FIRM SIZE AND COMPETITIVE ADVANTAGE**

Studies on the effect of firm size on firm profitability have generated mixed results ranging from those supporting a positive relationship among these variables to those opposing it. Larger firms are less productive but more profitable (Majumdar, 2012). Absolute firm size plays an important role in explaining profitability. However, this relationship was nonlinear meaning that gains in profitability reduced for larger firms (Lee, 2009). Linear specification in firm size revealed negative influence of firm size on its profitability. However, this influence wasn't statistically significant. On the other hand, there was a cubic relationship between ROA and firm size (Amato & Burson, 2007). Negative and statistically significant relations exist between the total assets, total sales and number of employees of the firms and their profitability (Becker et al., 2010). There is no indicative relationship between firm size and profitability of listed manufacturing firms (Niresh & Velnampy, 2014). Only the age of firms is a significant moderator in the relationship between competitive advantage and performance, and that this

relationship is stronger for older firms. The size of firms does not significantly moderate the relationship between competitive advantage and performance (Ismael *et al*, 2010).

**Table 1: Knowledge Gaps**

Author	Focus	Findings	Knowledge Gap
Kinyua <i>et al</i> (2014)	The impact of the external organizational environment on performance of community-based HIV and AIDS organizations in Nairobi County, Kenya	The external environment of an organization has an impact on an organizations effectiveness, efficiency, relevance and financial viability with higher impacts on the relevance performance indicators.	Performance does not imply competitive advantage (which is the focus of the current study) of a firm
Aazir and Qazi (2012)	The impact of Political, Economic, Social and Technological macro environmental forces on Pizza fast food industry	The result showed that the Political environment is somewhat insignificant but other all three factors are the key factors which show the significant results	Conflicting empirical evidence from other studies on impact of political environment
Adeoye and Elegunde (2012)	The impact of external business environment on organizational performance in the food and beverage industry in Nigeria	The external business environment (political, economic, socio-cultural, technological, etc.) has impact on organizational performance (effectiveness, efficiency, increase in sales, achievement of corporate goals etc.).	External business environment was used as an independent variable and not as a moderating variable
Amato and Burson (2007)	Size-profit relationship for firms operating in the financial services sector.	Negative influence of firm size on its profitability. However, this influence wasn't statistically significant	Insignificant and conflicting findings
Becker <i>et al</i> . (2010)	Effect of firm size on profitability in the firms operating in manufacturing sector in USA.	negative and statistically significant relations exist between the total assets, total sales and number of employees of the firms and their profitability	There is conflicting empirical findings from other studies on the topic
Karaduman (2012)	Effect of firm size on profitability on the firms operating in manufacturing sector, listed in ISE between	firm size has a positive effect on profitability	There is conflicting empirical findings from other studies on the topic



Author	Focus	Findings	Knowledge Gap
	the years 2005-2011.		
Niresh and Velnampy (2014)	Effects of firm size on profitability of quoted manufacturing firms in Sri Lanka for 15 companies listed in Colombo Stock Exchange for the years 2008 to 2012.	there is no indicative relationship between firm size and profitability of listed manufacturing firms	There is conflicting empirical findings from other studies on the topic
Mohamad <i>et al</i> (2013)	The influence of knowledge management practices on organizational performance in small and medium enterprises (SMEs) using structural equation modeling (SEM).	That knowledge acquisition, knowledge storage, knowledge creation, knowledge sharing, and knowledge implementation have significant factor loading on knowledge management; and also productivity, financial performance, staff performance, innovation, work relationships, and customer satisfaction have significant factor loading on organizational performance.	Organization performance does not imply existence of competitive advantage therefore performance is not a competitive advantage proxy but competitive advantage is a performance proxy.
Chuang (2014)	Impact of social KM resource on competitive advantage	Technical KM resource is negatively related with competitive advantage, and KM capability is significantly related with competitive advantage	To ascertain antecedent and consequent relationships between KM capability and competitive advantage.
Jyoti <i>et al</i> (2014)	impact of knowledge management on competitive advantage through innovation capacity (mediator) of an organization	Innovative capacity fully mediates the relationship of knowledge management and competitive advantage.	The results could not be generalized as the study was limited to telecommunication sector only

Source: (Researcher, 2016)

## **6.0 THEORETICAL FOUNDATIONS**

### **6.1 Resource Dependence Theory**

The firm's environment consists of the microenvironment described under the PESTEL framework, the industry environment described under the Porter Five Forces. The resource dependency theory contextualizes the relationship of organizations to their environment and the reaction of organizations to the environment. It then postulates how the relationship translates to performance or competitive advantage.

The Resource Dependence Theory was developed in the 1970s by Jeff Pfeffer and Gerry Salancik (1978). The theory is based on the premise that organizations acquire power when they possess resources that are valued by other organizations. The resource-based view of the firm (RBV) draws attention to the firm's internal environment as a driver for competitive advantage and emphasizes the resources that firms have developed to compete in the environment.

Furrer *et al.* (2008) changed the focus of inquiry from the structure of the industry, to Structure-Conduct-Performance (SCP) paradigm and the five forces model) to the firm's internal structure, with resources and capabilities (the key elements of the Resource-Based View (RBV)).

Researchers subscribing to the RBV argue that only strategically important and useful resources and competencies should be viewed as sources of competitive advantage (Barney, 1991). They have used terms like core competencies (Barney 1991; Prahalad & Hamel 1994), distinctive competencies and strategic assets to indicate the strategically important resources and competencies, which provide a firm with a potential competitive edge. Strategic assets are, 'the set of difficult to trade and imitate, scarce, appropriable and specialized resources and capabilities that bestow the firm's competitive advantage. Powell (2001) suggested that business strategy can be viewed as a tool to manipulate such resources to create competitive advantage. Core competencies are distinctive, rare, valuable firm-level resources that competitors are unable to imitate, substitute or reproduce (Barney 1991; Prahalad & Hamel, 1994). Distinctive competencies refer to all the things that make the business a success in the market place. This theory helps to explain various resource dependence management practices undertaken by firms and the possible effect on performance.

PESTEL is an acronym for political, economic, social, technological, environmental and legal environment. The PESTEL framework is an important tool for understanding how the environment changes. There are various versions of the same framework. While Grant (2001) provides the PEST model leaving out environmental and legal factors, Barney and Hesterly (2008) add international events to the PESTEL model. However, the framework, in analyzing the environment is only a start of the environmental analysis process, hence the concentration of this conceptual paper. The elements in the PESTEL model affect each other and also affect the other environments of an organization. It's therefore important to understand the interaction between environments and elements (Johnson et al. 2005).

### **6.2 The Knowledge-Based View Theory**

While most researchers subscribing to the RBV regard knowledge as a generic resource, some researchers (Murray 2000; Teece *et al.* 1997; Tiwana 2002) suggest that knowledge has special characteristics that make it the most important and valuable resource. Hamel and Prahalad (1994)

argue that knowledge, know-how, intellectual assets and competencies are the main drivers of superior performance in the information age. Tiwana (2002) also suggest that knowledge is the most important resource of a firm. Material resources decrease when used in the firm, while knowledge assets increase with use. Tiwana (2002) argued that technology, capital, market share or product sources are easier to copy by other firms while knowledge is the only resource that is difficult to imitate.

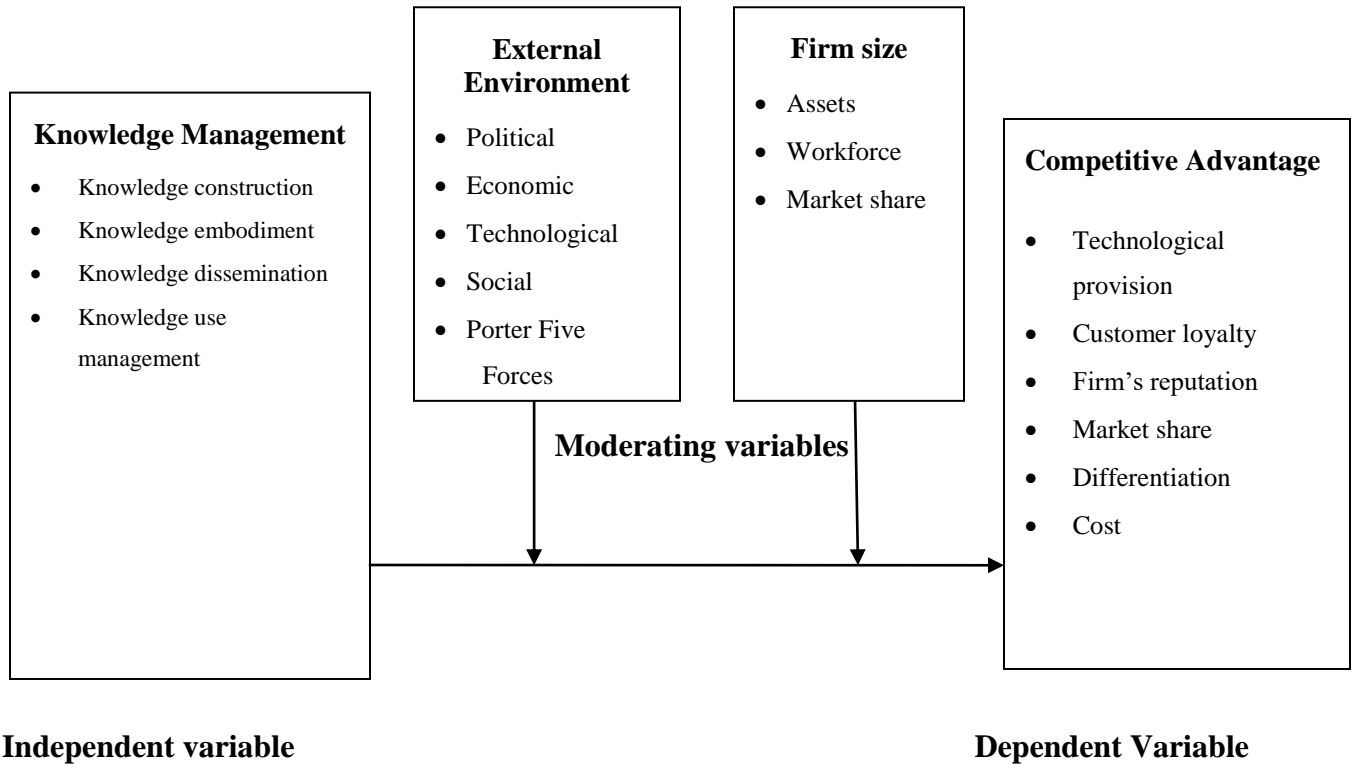
### **6.3 The Capability-Based View Theory**

Grant (1991) argued that capabilities are the source of competitive advantage while resources are the source of capabilities. Amit and Shoemaker (1993) adopted a similar position and suggested that resources do not contribute to sustained competitive advantages for a firm, but its capabilities do. Haas and Hansen (2005) supported the importance of capabilities and suggest that a firm can gain competitive advantage from its ability to apply its capabilities to perform important activities within the firm. Amit and Shoemaker (1993) defined capabilities in contrast to resources, as ‘a firm’s capacity to deploy resources, usually in combination using organizational processes, and affect a desired end. Sirmon *et al.* (2003) stressed the importance of organizational learning. They suggest that capabilities and organizational learning implicitly and explicitly are a part of any strategy within a firm. It has been argued Zack (1999) that the ability to learn and create new knowledge is essential for gaining competitive advantage. Lee *et al.* (2001) discussed the influence of internal capabilities and external networks on firm performance.

### **6.4 Porter’s Competitive Forces Theory**

Porter’s Competitive Advantage theory highlights what is important, and directs manager's towards those aspects most important to long-term advantage. The five forces include threat of new entrants, bargaining power of suppliers, bargaining power of suppliers, threat of substitutes and intensity of rivalry. Porter (1985) claims, "The ultimate aim of competitive strategy is to cope with and, ideally, to change those rules in the firm's behavior." The five forces determine industry profitability, and some industries may be more attractive than others.

## 7.0 CONCEPTUAL FRAMEWORK



**Figure 1: Conceptual framework**

## 8.0 CONCLUSION

Successful organizations must manage knowledge, develop plans as to how to accomplish this objective and devote time and energy to these efforts. This is because KM has been described as a key driver of competitive advantage and one of the most important resources for the survival and prosperity of organizations. Therefore managing and utilizing knowledge effectively is vital for organizations' to take full advantage of the value of knowledge. The attention and importance given to the acquisition of KM in literature as well as practice in the past years is also of necessity due to changes in the environment such as increasing globalization of competition, speed of information and knowledge aging, dynamics of both product and process innovations, and competition through buyer markets.

Studies on the effect of firm size on firm profitability have generated mixed results ranging from those supporting a positive relationship among these variables to those opposing it. Additionally, under the same sample of the firms, this relationship may be positive over some firm size ranges and negative for others. Beside previously presented theoretical explanations, contradictory empirical results could be a result of different used samples, industry groups, time horizons, indicators and business environment.

Future studies should attempt to establish whether the propositions stated in this paper hold empirically. In addition, future studies should also attempt to establish the nature of relationship between Knowledge management, external environment and competitive advantage. Is the relationship direct and significant, indirect-intervening or indirect- moderating? Future studies can help to conclude on these questions.

Future research may also adopt a more dynamic approach to examine the impact of competition on the process of resource creation. It seems fundamental to understand how competitive advantage, resources and competitive behaviors shape each other over time. The literature review covered the conceptual, methodological and findings of varied empirical studies. Most of these studies dealt with Knowledge management, external environment and firm Size and competitive advantage. This has led to the proposition of the study through the conceptual model.

The results could not be generalized as the study was limited to telecommunication sector only. The research therefore recommends that there is need to carry out further research at a wider scale involving other parastatals in order to generalize the research findings from this case study.

## REFERENCES

- Aazir, H. M & Qazi, I. R. (2012). Impact of External Environment on the Performance of the Fast Food Industry. *International Journal of Management, Economics and Social Sciences*, 1(1), 19 –25.
- Adeoye, A.O. & Elegunde, A. F. (2012). Impacts of External Business Environment on Organizational Performance in the Food and Beverage Industry in Nigeria. *British Journal of Arts and Social Sciences*, 6(2), 194-201.
- Alavi, M. & Leidner, D.E. (2011). Review: Knowledge management and knowledge management systems' conceptual foundations and research issues. *MIS Quarterly*, 25 (1), 107–136.
- Alkali, M. (2012). Assessing the Influence of External Environmental Factors, on the Performance of Small Business Manufacturing enterprises in Bauchi state, Nigeria. *Interdisciplinary Journal of Contemporary Research In Business* 4(7), 621-628.
- Ammar, A. et al. (2003), “Indicator Variables Model of Firm’s Size-Profitability Relationship of Electrical Contractors Using Financial and Economic Data”, *Journal of Construction Engineering and Management*, Vol. 129, pp. 192 – 197.
- Barney J (2007). *Gaining and Sustaining Competitive Advantage*, 3Ed. Pearson Education, Inc. Upper Saddle River.
- Barney, B. J., Hesterly. S. W. (2008). *Strategic Management and competitive advantage: Concepts and cases*. 2nd ed. Person Education, Inc.
- Barney, J. (2011). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Barney, J. and Hesterly, W. (2006). *Strategic Management and competitive advantage*, Upper Saddle River: Pearson Education

- Bellinger, G. Castro, D. & Mills, A. (2004). *Data, Information, Knowledge, and Wisdom*. Available at <http://www.systems-thinking.org/dikw/dikw.htm>
- Birkinshaw, J. and Sheehan, T. (2002). Managing the knowledge life cycle. *Sloan Management Review*, 44 (1), 75–84.
- Chuang, S. H. (2014). A resource-based perspective on knowledge management capability and competitive advantage: an empirical investigation. *Expert Systems with Applications*, 27, 459–465.
- Dess, G. G., Lumpkin, G. T., & Eisner, A. B. Taylor (2012). *Strategic management: Text and cases*.
- Duncan, R.B.(2002). ‘‘Characteristics of firm environments and perceived environmental uncertainty’ ’ *Administrative Science Quarterly*, 17, 313-327.
- Efraim, T.& Aronson, J. E. (2001). *Decision Support Systems and Intelligent Systems*. Norwell, MA: Kluwer.
- Grant, M. R. (2001). The resource-based theory of competitive advantage: Implications for strategy formulation. *California Management Review*.
- Johnson, G., Scholes. K., Whittington, R. (2005). *Exploring Corporate Strategy: 7th ed*. Pearson Education Limited, London
- Jyoti, J., Rani, R & Kotwal, S. (2014). *Knowledge Management Practices and Competitive Advantage: The Mediating Role of Innovation Capacity*. Unpublished Master’s Thesis.
- Kaen, F., & Baumann, H. (2003). Firm size, employee s and profitability in US manufacturing industries.
- Kamya, M. T., Ntayi, J. M. & Ahiauzu, A. (2010). Knowledge management and competitive advantage: The interaction effect of market orientation. *African Journal of Business Management* Vol. 4(14), pp. 2971-2980.
- Karadsheh, L., Mansour, E., Alhawari, S., Azar, G., & El-Bathy, N. (2009). A Theoretical Framework for Knowledge Management: Towards Improving Knowledge Performance. *Communications of the IBIMA*, 7, 67-79.
- Kieser, Alfred and Michael Woywode (2006), Evolutions theoretische Ansätze, in Alfred Kieser and Mark Ebers (eds.). *Organisations theory*, Stuttgart: Kohlhammer, 309-352. 75-86.
- Kinyua, Munyoki and Kibera (2014) influence of external organizational environment on Performance of community-based HIV and aids organizations in Nairobi County, Kenya. *European Scientific Journal* Vol.10 (28) 1857 – 7881
- Lee. J. (2009), ‘‘Does Size Matter in Firm Performance? Evidence from US Public Firms’ ’, *Int. J. of the Economics of Business*, Vol. 16, No. 2, pp. 189 – 203.
- Leitch, J.M. and Rosen, P.W. (2001). Knowledge Management, CKO, and CKM: The Keys to Competitive Advantage. *The Manchester Review*, 6 (2&3), 9-13.

- Mohamad H. G., Mehrdad, N. A. & Salman, A. N. (2013). Investigating the Influence of Knowledge Management Practices on Organizational Performance: An Empirical Study. *Acta Polytechnica Hungarica*, Vol. 10, No. 2, 205-216.
- Njuguna, K. J., Munyoki, J & Kibera, F. (2014). Influence Of External Organizational Environment On Performance Of Community-Based Hiv And Aids Organizations In Nairobi County, Kenya. *European Scientific Journal*, 10(28), 405-426.
- Nonaka I. & Takeuchi H. (1995), *The Knowledge-creating Company: How Japanese Companies Create the Dynamics of Innovation*, University Press, New York.
- Ogundele, O.J.K. (2005). *Management and Organisation: Theory and Behaviour*. Sabte Book Series, Lagos, Nigeria.
- Pearce, J. A., Robinson, R. B. & Subramanian, R. (2013). *Strategic management: Formulation, implementation, and control*. Columbus, OH: Irwin/McGraw-Hill.
- Porter, M. (1985). *Competitive Advantage*. Free Press: New York
- Porter, M. E. (1980). Industry structure and competitive strategy: Keys to profitability. *Financial Analysts Journal*, 36(4), 30-41.
- Powell, W.W (2001). Competitive advantage: logical and philosophical considerations. *Strategic Management Journal*, 22(9), 875-888.
- Robbins, S.P. (2004). *Firmal Theory: Structure, Design and Applications (3<sup>rd</sup> Ed)*. Prentice-Hall. New Jersey.
- Roberts, J. & A Mitage, J. (2008). The ignorance economy *Prometheus: The Journal of Issues in Technological Change, Innovation, Information Economics, Communications and Science Policy*, 26 (4), 335-354.
- Teece, D.J. (2000) Strategies for Managing Knowledge Assets: The Role of Firm Structure and Industrial Context, *Long Range Planning*, 33:1, 35-54.
- Tripathi, K. P. (2010). An Empirical Study of Managing Knowledge Workers. *International Journal of Computer Applications*, 12(7).
- Vijayakumar, A. and Tamizhselvan, P. (2010), Corporate Size and Profitability-An Empirical Analysis, *College Sadhana – Journal for Bloomers of Research*, Vol. 3, No. 1, pp. 44 – 53.
- Waddell D, Stewart D (2008). Knowledge management as perceived by quality Practitioners. *The TQM J.*, 20(1): 31-44.
- Werr A., Blomberg J, Lowstedt J (2009). “Gaining external knowledge boundaries in managers’ knowledge relations’ *Knowledge Management*. 13(6): 448-463.
- Zack M, McKeen J, Singh S (2009). Knowledge management and performance: an exploratory analysis. *J. Knowledge. Management*, 13(6): 392-408.