

# The Relationship between Organization Structure and Performance in Commercial Banks in Kenya: The Mediating Role of Innovation

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## **Abstract**

In a knowledge economy most business processes are viewed through knowledge capability. However, the real challenge is in developing an adequate system of knowledge management in companies that will give them a competitive edge. The question is; how do firms develop knowledge capability, and what is the effect of strategic knowledge capability on a firm's performance? This research sought to find out the relationship between strategic knowledge capability and performance in commercial banks in Kenya with specific interest on the mediating role of innovation. Specifically, the study sought to find out how organizational structure impacts on the performance of commercial banks in Kenya. The study employed the social survey methodology of study, using questionnaire as the main tool for data collection. The data collected was analyzed quantitatively using both descriptive and inferential statistics to help establish how possession of strategic knowledge capability affects the performance of commercial banks in Kenya. To actualize this, data was collected using a single questionnaire distributed to each of the Chief Executive Officers of all forty-three banks. A drop and pick later procedure for questionnaire administration was used to distribute them. Data gathered was then analyzed quantitatively using both descriptive and inferential statistical tools; specifically Analysis of Variance (ANOVA) and regression analysis, with the finding that organization structure had no significant influence on both innovation and performance in commercial banks in Kenya. The conclusion that the strategic knowledge capability defined by organization structure had no significant effect on the performance in commercial bank was reached.

## **Key Words**

Strategic knowledge capability, organization structure, innovation, performance.

## **Introduction**

Modern businesses and companies are exposed to challenges posted by an unpredictable and complex competitive environment. The globalized business environment is characterized by changed business conditions, market liberalization, high production costs, improved information and communication technology, flexible organizational structures of companies

and increasing partnership development (Jelenic, 2011). This means that competition has grown stiff and companies are left with few aspects of their firms that they can effectively compete on. In this world of demanding business, an organization's competitive edge almost wholly depends on how well it can manage and deploy its corporate assets (Tanaji, 2012). These assets can be categorized into tangible and intangible assets. Traditionally, tangible assets like plant, equipment, inventory and financial capital were considered the most fundamental corporate assets. However, changes in the nature of business and the shift to a knowledge economy, plus the new information age have presented new resources that companies use in business processes. These resources include knowledge, reputation, organizational culture and intellectual capital and brands. Firms can successfully compete based on these resources and attain competitive advantage. This is determined by how well these assets are put to use. To put these assets and gain competitive advantage, the firm must possess the knowledge capability to do this.

### **Statement of the Problem**

For the past years, businesses operated in a way reminiscent of the industrial era. This is a period when the attitude of the manufacturer was that any goods they manufactured would find customers and indeed, they did. The situation is the same in the service sector. In the banking sector, banks were the stone and mortar structures where all bank employees reported for work in the morning and sat in there all day waiting for customers to go to them for the services they had to offer. However, the knowledge era is now transforming the rules of business (Saint-Onge & Wallace, 2012). Goods are just not produced, the manufacturer must have the knowledge of what the customer needs now, and how these needs are going to change over time in order to remain relevant. Bankers are now out in the field, practically 'hawking' bank services and products to both existing and prospective bank customers.

In the business context of the knowledge era, the globalization of capital and its greater availability through a variety of channels, lack of funds is no longer a bottleneck to growth and sustainability. Most businesses possess sufficient capital, and those that may have a constraint, there are numerous sources from where they can acquire this capital. However, there are too few opportunities to which to apply the capital available, and at the yield levels expected by investors. This means that the new bottleneck in business is the capabilities required to create new opportunities to which this financial capital can be applied (Saint-Onge & Armstrong, 2004). These capabilities come from the knowledge that a firm possesses and how the firm develops the ability to use it. The principal cause, therefore, for increasing concern with knowledge and knowledge management is the idea that knowledge and its application are the means by which creativity can be promoted (Nonaka & Nishiguchi, 2000), innovation facilitated (von Krogh, Ichijo & Nonaka, 2000), and competencies pulled in such a way as to advance overall organizational performance whether in the public, private or not-for-profit sectors (Pitt & Clarke, 1999). As a result, knowledge capabilities must now move to the centre of the organization's strategic planning framework.

The banking sector in Kenya is one of the most profitable sectors in the country. Total profits for the sector show a growing trend. While many individual banks make large profits, some

make large losses running into hundreds of millions of shillings. All the banks operating in the sector do so because they have a customer base. Furthermore, the country still has a large population of unbanked citizens from whom these banks can acquire more customers. However, for them to acquire these customers, the banks must possess the knowledge capability to attract them. Do they possess the strategic knowledge capability to give them a sustainable competitive advantage? How do the profitable banks develop this needed capability? A close look at the performance in the sector over the last ten years shows that the champions of previous years are currently trailing those they never thought were a threat. For example, Barclays Bank of Kenya dropped to position five in terms of profitability in the year 2014, and Standard Chartered bank to position three in the same year. These for a long time were industry leaders but are now trailing banks previously viewed as not being significant competition like Equity, Kenya Commercial and Co-operative banks. Ning, Fan and Feng (2006) in their conference paper on capability concluded that there are few empirical studies on the relationship between knowledge capability and organization performance. The aim of this research therefore, is to help fill this gap, and find out how commercial banks in Kenya develop strategic knowledge capability for sustainable competitive advantage.

### **Objectives of the Study**

The main objective of this research was to analyze the role of innovation in the relationship between strategic knowledge capability and performance in commercial banks in Kenya.

### **Specific Objectives**

The specific objectives were to:

- i. Find out how organization structure impacts on performance of commercial banks in Kenya.
- ii. Enquire into the mediating role of innovation in the relationship between strategic knowledge capability and performance of financial banks in Kenya.

### **Hypotheses**

The following two hypotheses were formulated to help accomplish the objectives of the study;

**Hypothesis 1 (H<sub>0</sub>):** Organization structure has no impact on performance in commercial banks in Kenya.

**Hypothesis 2 (H<sub>0</sub>):** Innovation has no mediating role on the relationship between strategic knowledge capability and performance in commercial banks in Kenya.

### **Justification of the Study**

Strategic knowledge capability development is a strategic activity meant to add value to the organization. This means that it needs to be closely linked to the organization's plans to ensure it contributes to profitability and sustainable competitive advantage. It is, therefore, the recognition of the emerging importance of the need to develop and possess strategic knowledge capability that is the justification of this research. Organization performance and

strategic positioning call for all industry players to understand the forces within their environment that influence this. Knowledge management can be singled out as a key determinant of commercial banks' performance. There is, therefore, a general acceptance that sustainable competitive advantage in the 21<sup>st</sup> century will be accomplished through Knowledge Management (Nonaka & Nishiguchi, 2000). The more research is conducted in this area of knowledge the better for all businesses.

The financial services market in Kenya is still simple, with very few product offerings. Banks in this market are left with very few areas on which to compete. Key among these is product or service offerings that meet customer needs every time and all the time. This means that possessing the ability to keep up with the ever-changing customer needs with innovative solutions will give a firm sustainable competitive advantage. The current study will benefit the commercial banks by highlighting the mediating role of innovation in the attainment of competitive advantage.

It has been argued that competition in the banking sector is so intense. This is made worse by the fact that most financial products and systems are easily copied to the extent that some modified and better versions of a new product are quickly rolled out by the competition shortly after a new product is launched by one bank. This study assumes that developing innovative capacity through gaining strategic knowledge capability can help banks in Kenya to develop a predictive approach and thereby a proactive strategy to develop a sustainable competitive advantage.

### **Scope of the Study**

This study covered all registered banks in Kenya. There are forty-three banks in Kenya with branches distributed all over the country. These banks formed the population for this research.

### **Limitations of the Study**

This research was conducted in banks in Kenya. Therefore, to generalize the finding to all firms may call for further research to include firms in other sectors of the economy. However, these results will still be useful to the banking sector, which is a key sector in any economy and the rest of the financial services sector. Other than this, other service-based firms will also benefit from this research. This is because continuous innovation is a sure way to attain sustainable competitive advantage in the services sector.

Further, because there are only forty-three banks in Kenya, this number may be too small to justify generalization of findings to all other firms. However, these results may still be widely applicable because the banking sector is one of the most profitable sectors of the Kenyan economy and any change in their performance affects many other sectors.

## Literature Review

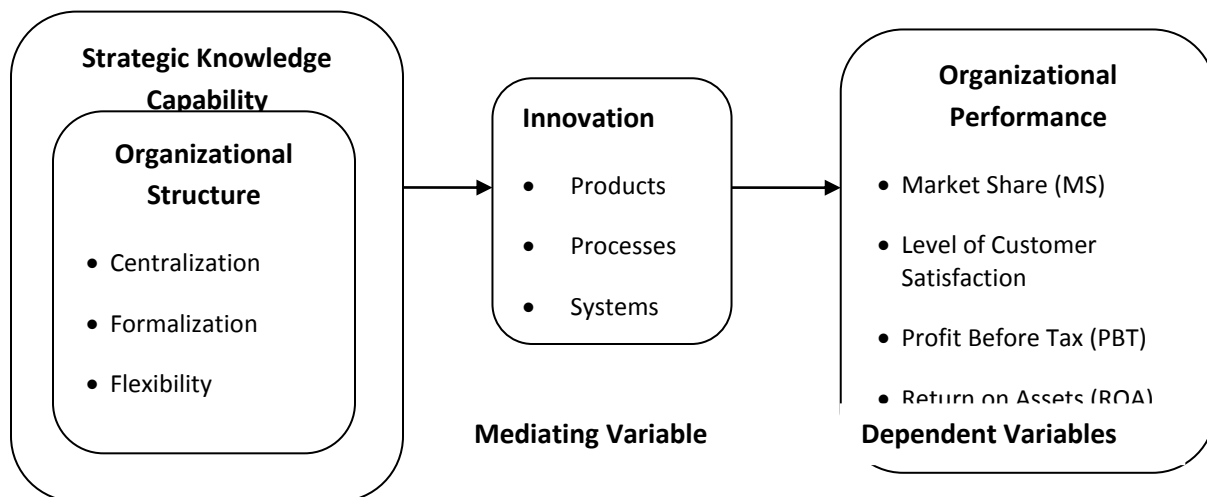
### Introduction

For many years now, owners of family businesses have been passing on commercial knowledge to their children, master craftsmen painstakingly imparting their trades to apprentices, and workers exchanging ideas and knowledge on the job without much thought. But it was not until early 1990s that business leaders started talking about knowledge management (KM). Today, knowledge management is emerging as a key concern of organizations. In the same breath, knowledge is increasingly seen as a primary business asset (Halawi, Aronson & McCarthy, 2005) and knowledge management as a key differentiator between firms (Drucker, 1995). Knowledge is not a usual commodity. It is largely a public good. Unlike physical resources, it can be used and re-used without losing value. Its intellectual property can be transferred without losing ownership.

This section discusses strategic knowledge capability, founded on the premise of internal firm capability paradigm that anchors on the Resource-Based View (RBV) of the firm, knowledge-based view and the learning organization theories. Knowledge is looked at both as a resource for production, as well as a source of competitive advantage. The theories discussed lend themselves to this view. Performance and how it is measured in this research is also discussed.

### Conceptual Framework

Central to Knowledge Management is the development of strategic knowledge capability. The effective development of this capability gives the firm sustainable competitive advantage. To develop this capability, the firm must possess three key enablers or influencers. These enablers are the overall organizational activities or mechanisms that can stimulate knowledge creation, protect knowledge, and facilitate the sharing of knowledge in an organization (Lee & Choi, 2003; Migdadi, 2005). These can be realized through the firm's organization structure and evidenced through innovations that drive performance. This is diagrammatically summarized as follows;



*Figure 1: Relationship between Knowledge Capability and Firm Performance*

### **Organization Structure**

Organizational structure here refers to both physical and non-physical divisions and barriers between employees in the organization that determine the flow of knowledge. This is both in terms of size of teams of employees working together and their geographical dispersion. This structure can either be centralized or decentralized. A centralized organizational structure is a setup in which employees sitting in one place work as a team. A decentralized one is one in which employees sit at different locations. Within the two, the structure could also be defined as formal or informal, where employees operate within well-defined rules and regulations, organization structure and determined objectives and policies among other characteristics, or in a relaxed and less formalized structure respectively. All these structures determine how a firm handles its strategic knowledge capability agenda.

A centralized and informal organization structure allows people to freely share and come up with ideas to improve products, processes and systems, thereby encouraging the development of strategic knowledge capability. In an organization that is managing knowledge, the employees must be prepared to realize a different or partially changed job description, which causes demand for knowledge, need for constant learning and sharing of knowledge. When employees are encouraged to work in teams under a centralized structure, more collaboration and more knowledge sharing will be experienced. Here, there will be more deepening of knowledge by employees and strategic knowledge capability will be developed. Employees that have the flexibility to decide on how best to approach their work and still deliver within agreed schedule experience personal development of knowledge capability and innovation. This flexibility allows employees to move across to other departments and share the knowledge they possess. The management style adopted by an organization affects its ability to learn and innovate (Lemon & Sahota, 2004). Centralization means that knowledge can be shared among employees more easily. According to Argyres and Silverman, 2004, a centralized structure is more suitable for exchanging established or explicit knowledge, whereas a decentralized one is more suitable for exchanging tacit knowledge or for creating knowledge. The organization should therefore choose their structure carefully depending on what their knowledge strategy is.

Participation of employees in taking decisions gives the organization a chance to use their knowledge, while at the same time enabling them to fulfill their need for self-realization. Increase in participation is accompanied by increase in responsibility for decisions taken and collective responsibility when an issue arises in the organization. Companies need to explore and experiment with different management approaches that capitalize and build on increased empowerment, teamwork, trust, communication, commitment and flexibility and move away from approaches that focus on hierarchy and control (Naudé, 2012). Managers who encourage employees to take part in discussions, asking inquisitive questions, listening carefully, and



offering them time, sources and conditions to find and solve problems of the organization encourage creativity and sharing of knowledge. These are also the activities that stimulate knowledge creation. Free transfer of information between employees, possibility to direct communication with people possessing information, and lack of emotional barriers in communication with superiors facilitate the flow of knowledge. Flexible boundaries, high powered incentives, non-bureaucratic decision-making, shallow hierarchies and an innovative and entrepreneurial culture are required attributes for highly flexible and responsive knowledge intensive organizations (Lemon & Sahota, 2004). Flexible boundaries between employees of an organization allow for free sharing of knowledge through free consultations. They also allow employees in one department to easily collaborate with those of other departments that they may have identified as being of value to develop the ideas that they may have, thereby helping develop the strategic knowledge capability of the entire organization. In this way, solutions to problems are developed faster and problems resolved easily. Formal and dispersed structures on the other hand hinder innovation as employees are not allowed to experiment and therefore learn. It also hinders the sharing of knowledge and stifles the development of knowledge capability, and by extension, innovation.

### **Innovation**

The knowledge capability of an organization can be understood by individual search for creative problem-solving methods. KÖr and Maden (2013) in their research on the relationship between knowledge management and innovation in Turkish Service and High-Tech firms found that knowledge management processes relate positively to innovativeness, which in turn increases innovations in organizations. They also contend that knowledge management processes (i.e., knowledge acquisition, sharing, and application) have been considered an effective means of promoting an innovative culture and facilitating different types of innovation in organizations. They mention that the study was administered in a Turkish context and suggest that the proposed relationships should be examined in different cultures to increase the generalizability of the findings. Harlow (2008) in his research on the effect of tacit knowledge on firm performance conducted on selected firms in the United States of America (USA) and Canada found that there is a positive association between Tacit Knowledge Index (TKI) and firm outcomes. Therefore, the result in an organization of developing its strategic knowledge capability is innovation.

Innovation can be defined as the process of generation, development and implementation of new ideas and behaviours in an organization (Vaughan, 2013). Schumpeter first used the term “innovation” at the beginning of the 20th century. He defines innovations as product, process and organizational changes that do not necessarily originate from new scientific discoveries, but may arise from a combination of already existing technologies and their application in a new context (Hana, 2013). According to Damanpour and Gopalakrishnan (2001), innovation can be categorized into new product or service development, new production technology, new structure or administrative system and new organization plan or programmes. Innovation can be described as a generation, development, and implementation of something new into the organization as well as the expansion of new products, services, processes, technologies, administrative systems or structures (KÖr & Maden, 2013). It has been also defined as a knowledge process that transforms knowledge into new products and services (Wilson, 2007).

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An organizational performance, survivability and competitiveness are all profoundly influenced by innovation (Plessis, 2007; Huang & Li, 2009).

Most executives' strategic plans are dominated by desires for innovation. New markets, new products, new technology, new approaches all could give a firm a competitive edge over others. Innovativeness is one of the most important sources of competitive advantage for any business enterprise (Hurley & Hult, 1998). It is determined by an organization's cultural openness to innovation that is related to the willingness of the organization members to participate in innovation activities (Van de Ven, 1986; Zaltman et al., 1973; Hurley & Hult, 1998). Dobni (2008,) states that innovativeness is a multi-dimensional context, which includes the intention to be innovative, the infrastructure to support innovation, operational level behaviours necessary to influence a market and value orientation, and the environment to implement innovation. Garcia and Calantone (2003) and Muffatto (1998) claim that innovativeness is the capacity of innovation and innovative climate that has a profound relationship between the firm's existing technological resources, skills, knowledge, capabilities, or strategies to foster innovation. Innovativeness also creates basic values, assumptions, and beliefs within the organization that lead employee behavior to transform knowledge into new products, services, processes, technology, and administrative systems or structures, policies, plans, and programmes.

Acquiring, applying, and sharing knowledge between the functional areas of an organization create conditions to elevate willingness of organizational members to participate in innovational activities. Knowledge sharing can promote close contacts and interactions within an organization, which support innovativeness. When knowledge is applied or acquired by organizations, organizational learning takes place (Darroch & McNaughton, 2002; Nonaka & Takeuchi, 1995), and there is also a positive impact on openness to innovation or innovativeness. Additionally, effective management of knowledge increases the stock of knowledge within an organization that develops infrastructure to support innovation and increases the innovativeness, and the overall improvement in organizational performance.

Banks provide a service and thus have no tangible products to offer their customers to touch and judge its quality. The quality of their products is judged through the service experience. Given human nature, the services banks offer have to be varied frequently and by customer type so as to stay ahead of the competition. This makes it very difficult to satisfy customers and in most cases the employee providing the service cannot tell what the customer preferences are. With this, developing the knowledge capability of these employees becomes very important. Continuous innovation is the only evidence that a firm is successfully putting to use the strategic knowledge it possesses. Gloat and Samson in their paper presented at the 46<sup>th</sup> Hawaii International Conference on System Sciences contend that knowledge is important for innovation, and that without knowledge, there can be no innovation. Businesses have access to an extensive pool of knowledge obtained from trying to understand their customer needs, their business environment and from the skills and experience of their employees (Mohammed, 2011). If a business gathers, shares and exploits this knowledge to its fullest, it can be central to its ability to develop in all or several areas of its operations successfully. This does not only apply to large multinational manufacturing companies, but also to small sole proprietorships at



the village level. Knowledge can be used by businesses to come up with new or enhanced offerings and processes. These include product innovation, organizational innovation; for example, new venture, internal communication system, accounting procedure, organizational structure, workflow procedures and others. The firm should encourage employees to progress significantly on their own towards an innovative goal without too much involvement of management. This way, a large database of ideas is collected, from where these can be analyzed for viability. This continuous stream of innovation will give the firm a competitive advantage. In the banking sector, there are three major areas of innovation including innovation in product or service offered, innovation in the process used to deliver product or service and innovation in the system used to come up with and offer the product or service.

### **Performance**

The assertion that knowledge is a resource that can give a firm a competitive edge is provocative. As a result, a lot of research has been conducted in the area of knowledge with a view to explaining how knowledge and what aspects of knowledge and knowledge management give a firm a competitive edge. Arumugam and Mojtahedzaden (2011) in their study on Iranian Industries found that innovation plays a fundamental role in determining the performance of Iranian manufacturing industries. They further concluded that both knowledge management and innovation had a positive effect on a firm's performance. Uhlaner, Stel, Meijaard and Folkering (2007) found out that knowledge promoted effective performance in Dutch SMEs. They argued that knowledge conversion influenced employees learning of the company's day-to-day operations, which significantly influenced the firm's performance. Therefore, there is need for commercial banks to improve their day-to-day operations through sharing of the relevant knowledge and consequently attain competitive advantage. A study carried out in Pakistan to investigate the linkages between knowledge management and company performance amongst 52 firms showed that there is a positive relationship between knowledge sharing and building of a consistent process with firm performance (Lin Xiaoyan, 2013). Also the study showed a positive significant relationship between effective knowledge management and firm performance. Regarding firm innovativeness in order to attain competitive advantage the study findings showed a positive significant relationship between firm innovation and performance (Lin Xiaoyan, 2013). In Kenya, a study conducted by Kangogo and Gachunga (2015) to investigate the influence of knowledge management practices on enhancing service delivery in the banking sector in Kenya showed that knowledge acquisition enhanced service delivery.

The financial performance of a company is usually measured using its historical accounts. Using this would appear to be straightforward, but even these metrics are subjective. Accountants and managers may decide when to record revenues and costs, and sometimes, personal motives can colour this judgment (McKinsey & Company, Dobbs, Koller & Huyett, 2005). There are five dimensions of measuring organization performance, including return on investment (ROI), sales margin ratio (SM), asset turnover ratio, level of customer satisfaction and quality of product or service offered (Muhammad, Hassan & Kashifur, 2009). Some of the ways of measuring a company's financial performance are better and easier to use and interpret than

others. Metrics, such as Return on Equity (RoE), Return on Assets (RoA), economic profit and company growth that can be directly linked to value creation are more meaningful than traditional accounting metrics like Earnings per Share (EPS). Although growing companies that earn a RoE greater than their cost of capital generate attractive EPS growth, the inverse is not true: EPS growth can come from heavy investment or changes in financial structure that do not create value. In fact, companies can easily manipulate EPS by for example, repurchasing shares or undertaking acquisitions. The true drivers of company growth and RoE are a better place to start measuring the performance of a company.

Knowledge is an intangible asset and therefore, it is impossible to measure the direct impact on financial performance of a firm of putting in a given level of investment into knowledge management. Concrete examples of where the investment in the process pays off in terms of benefits at both individual and organizational levels may have to be applied instead. Traditional cost-benefit analyses may be too blunt tools to measure the impact of a given level of investment in knowledge management activities. Risk management and significant event audits may be better measures. For example, management would ask themselves questions such as; what is the potential impact of not having this information when we need it? This would give them a feel of the contribution of the investment in knowledge management. The firm could also adopt an incremental approach, in which case management would be asking themselves; "what does this information or knowledge add to the usefulness of what we already have?" The end point of all these and the reason firms invest in processes are to register an improvement in the organization's bottom-line; the financial profits.

### **Theoretical Review**

To evaluate the real value of a company, its stability, possibility of survival and development, it is not enough to observe the company only through its physical assets and financial strength. It has become increasingly important to identify and increase the transparency of intangible resources, to promote the intellectual capital and corporate knowledge through professional development, continuous training and education, together with the development of information technology support (Jelenic, 2011). The most valuable intangible assets are related to relationships with customers, employees and their skills, knowledge and organizational culture that are aimed at innovation, problem solving and general business improvement (Jelenic, 2011) as enumerated by the resource based view theory of the firm as explained below.

### **Resource-Based View (RBV) of the Firm**

The Resource-Based Theory was developed by Penrose in 1959 to help understand how organizations achieve sustainable competitive advantage using resources that they already possess. This view looks at the firm as a unique bundle of idiosyncratic resources and capabilities where the primary task of management is to maximize value through the optimal deployment of existing resources and capabilities, while developing the firm's resource base for the future (Grant, 1996). It is based on a firm using its internal strengths to take advantage of opportunities to counter threats in the market, with an aim to creating sustainable competitive advantage through acquisition, utilization, and exploitation of firm-specific resources and

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capabilities (April 2002; Riahi-Belkaoui 2003).

Today, the most significant firm specific resource that firms possess is knowledge. This knowledge when well-utilized will give a firm sustainable competitive advantage. This competitive advantage also becomes sustainable only when the knowledge is hard to copy. At this point, then it becomes strategic knowledge capability of the firm. Within the resource-based view (RBV), researchers assumed that the firm is a pool of hard-to-copy resources and capabilities (Conner, 1991) and that discrepancies in size distribution and competitiveness of firms occur from their distinctive capabilities to build up, expand, and organize those resources and capabilities to create and apply value-enhancing strategies (Amit & Schoemaker, 1993; Barney, 1991; Peteraf, 1993). A firm's resources consist of all assets both tangible and intangible, human and non-human that are possessed or controlled by the firm that permit it to devise and apply value-enhancing strategies (Barney, 1991; Wernerfelt, 1984). To be able to devise and apply value-enhancing strategies, the firm must possess strategic knowledge capability. In the resource-based view, knowledge is seen as an internal strategic asset with the potential to be a source of sustainable competitive advantage for an organization. It encompasses the facets to knowledge integration which comprise efficiency, scope and flexibility, and the four primary mechanisms by which knowledge is coordinated; rules and directives, sequencing, routines and group problem-solving and decision-making.

The resource-based theory treats enterprises as potential creators of value-added capabilities, and the underlying organizational competence involves viewing the assets and resources of the firm from a knowledge-based perspective (Prahalad & Hamel, 1990; Conner & Prahalad, 1996). It focuses on the idea of costly-to copy attributes of the firm as sources of business returns and the means to achieve superior performance and competitive advantage (Barney, 1991; Rumelt, 1987; Conner, 1991, Prahalad & Hamel, 1990). Resources and capabilities that are valuable, uncommon, poorly imitable and non-substitutable (Barney, 1991) comprise the firm's unique or core competencies and therefore, present a lasting competitive advantage.

Tangible assets are not strategic since they can be acquired or imitated, hence, the firm should determine whether it is strategically wise to capture and share its knowledge since these actions eliminate the intangibility of tacit knowledge. Intangible resources are more likely than tangible resources to generate competitive advantage (Hitt, Bierman, Shimizu & Kochhar, 2001). Specifically, intangible firm-specific resources such as knowledge permit firms to add value to incoming factors of production (Hitt et al., 2001), production processes and to the end product. This continuous value addition is only possible when the firm possesses strategic knowledge capability which gives the firm sustainable competitive advantage. Such advantage is developed over time and cannot easily be imitated. Barney (1991) regards resources as those assets controlled by a firm that allow the firm to formulate and implement strategies that expand its efficiency and effectiveness. The efficiency and effectiveness are then evidenced through superior firm performance that may be seen as good and improving in the industry.

Finally, literature on Resource-Based View (RBV) indicates that competitive advantages can be created and sustained via the use of knowledge. A firm can possess all the other tangible

resources including land, capital and machines, which all other firms have, but without the capability on how to use these resources to gain sustainable competitive advantage, the firm will fail. It means that explanations for why some firms ultimately succeed and others fail can be found in understanding their resources and capabilities, which influence both the strategic choices that managers make and the implementation of those chosen strategies (Jackson, Hitt & DeNisi 2003). Therefore, RBV is an appropriate theory to explain whether strategic knowledge capability indeed formally and empirically yields innovations in firms, and to explain the nature of the relationship between knowledge and a firm's performance in terms of profitability.

### **Critique of Existing Literature**

A lot of research has been done on knowledge and knowledge management in firms. A study by Rasoulinezhad (2011) to measure the role of KM on commercial banks performance in Iran showed that there is a significant positive relationship between knowledge management and commercial banks performance. Mostly, KM by commercial banks in Iran has been enabled by embracement of information systems or related technological tools as employed by commercial banks. Further, the study depicted a weak significant relationship between knowledge acquisition and knowledge distribution in relation to KM. The study also showed that there is a strong significant relationship between knowledge infrastructures and knowledge processing with organization performance. The findings concurred with Prodromos and Vraimaki (2009) who argued that banking organization should manage their knowledge so as to attain some competitive advantage. This study seems to leave out the people aspect of knowledge management. People are key in the implementation of knowledge management processes. According to Kangogo and Gachunga (2015), innovation and agility have been found to significantly mediate the relationship between knowledge usage and organizational performance. This development is actually true innovation. Further, the study showed that KM minimized the level of staff turnover, improved employee and customer communication, and led to faster responses to clients' needs, all which when combined affected the performance of commercial banks positively. This study too focused on knowledge management processes leaving out the holders of knowledge in people in the banks. When it comes to knowledge as a source of competitive advantage to the firm, people must be put at the centre of it. It is the people that are the innovators. They are able to conceive an idea of how a service, product or a process should be improved to meet certain business and customer needs. It is people to discover the much needed knowledge, provide suggestions on how to acquire it and how to organize it for retention and future use.

In his study titled 'Knowledge Management for Competitive Advantage within Commercial Banks in Kenya', Asava-Kihima (2009) established that Commercial banks in Kenya had realized that knowledge was an important intangible asset that if well-utilized would help them gain competitive advantage. To this end, banks have highly automated their services, created Knowledge communities and incorporated technologies like internet, intranet, and knowledge bases. They have also created a culture where employees freely interact with each other in creating and sharing information. Further, they have embraced employee development through

training and created access to knowledge systems. To crown it all, top management fully supports a culture of knowledge building and sharing. As he notes however, there is a need to study the role of resources in the enhancement of knowledge management as it is highly believed that knowledge is about people's ability to comprehend situations and respond positively. Further, he also alludes to the need to study the relationship between training and knowledge utilization by employees.

### **Research Gaps**

Many studies have been conducted on Knowledge Management and its effects on firm performance. Rasoulinezhad (2011) carried out a study on measuring the role of knowledge management processes in the commercial banks of Iran. In this research, the researcher asserts that there is a lack of knowledge management processes implementation and knowledge management itself. It is clear from the same research that there is a positive relationship between knowledge management practices and performance of Iranian banks, but to the extent that bank employees understand knowledge management. There is, therefore, a need to investigate the reasons for both deficiencies so as to come up with recommendations on how these two problems can be addressed by firms.

While most studies on knowledge management bring out the fact that KM has a positive relationship with firm performance, it is not clear how this happens. It is for this reason that this research seeks to focus on the role of innovation. Without knowledge in the firm, there would be no innovation. It is the people in the firm that innovate and this would not be possible if they did not possess knowledge and the capability to convert the knowledge into innovations for a competitive advantage. The table below is a summary of some of the past studies that have been done on knowledge.

### **Research Methodology**

This study adopted a descriptive research design. A census of all forty-three banks was conducted in which a questionnaire was distributed to each of the banks. The instrument for data collection was a questionnaire. This was combined with secondary data when it came to the variable; financial performance. A pilot test was carried out using ten employees of Barclays Bank of Kenya to test for reliability, validity of and any errors in the questions.

### **Reliability of the Research Instrument**

In this study, reliability was measured using Cronbach alpha. According to Chakrabarti and Sen (2013), as the average inter-item correlation increases, Cronbach's alpha increases as well (holding the number of items constant). A high reliability estimate should be as close to 1 as possible. From the responses for this research, Cronbach's alpha calculation using SPSS Version 22 was 0.722, which indicates a high level of internal consistency for this construct.

### **Data Processing and Analysis**

The questionnaire collected from the respondents was checked first for completeness. It was then coded and analyzed using Statistical Package for Social Scientists (SPSS) version 22 and

Microsoft Excel. Inferential statistics through multiple linear regression analysis was used to investigate cause and effect relationship and conclusions drawn. The general multivariate regression model below was used to carry out an analysis with the independent variable predicting the dependent variable:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where:

Y = Performance

$\beta_0$  = The Intercept

$\beta_1, \beta_2$  = Regression Coefficients

$X_1$  = Organization Culture

$\varepsilon$  = Error Term

The degrees of freedom in a multiple regression =  $N - k - 1$

Where:

$N$  = the population of study

$k$  = the number of variables under study

Three other analyses were conducted as follows:

1. The independent variable predicting the mediating variable (M)

$$M = \beta_0 + \beta_1 X_1 + \varepsilon$$

2. Mediating variable (M) predicting dependent variable

$$Y = \beta_0 + \beta_1 M + \varepsilon$$

3. Multiple regression on both the independent and mediating variables predicting the dependent variable

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 M + \varepsilon$$

To provide more stable measures of the underlying abilities, and given that each variable had several questions under it, composite variables using the mean of the scores of the questions under each variable in SPS were developed (Ackerman & Cianciolo, 2000). The strength of the relationship between the variables was then measured using correlation coefficient. Finally, thematic analysis was used to analyze the qualitative data collected.

Performance is a variable that can be measured using both financial measures such as return on assets, profitability, return on equity and others, as well as non-financial parameters such as market share. Triangulation by data source was used where data collected using the questionnaire was analyzed from published sources such as financial reports so as to see whether they agree or, at least, do not contradict each other. From all these analyses, conclusions were drawn and recommendations made.



## **Research Findings and Discussion**

### **Introduction**

The unit of analysis: the individual chief executive officers of banks as respondents and results of their responses are reported in terms of the summary statistics. Data was collected from 32 respondents made up of bank executives or their appointed representatives. The descriptive statistics for each tested variable are reported, including the mean, standard deviation (Std. Dev.), median and mode. Frequency tables, Pie charts and bar charts are used to illustrate the frequency distributions for each tested variable. The results associated with the testing of the hypotheses are reported according to each hypothesis tested; the process followed, and the diagnostic statistics and procedures used.

### **Bio data of Respondents**

This section presents the bio-data of the respondents that took part in this research in terms of their gender, age, education level and years of service in the bank that they work for.

### **Response Rate**

Table 3 reveals that 41 questionnaires were distributed to the target respondents. The completed questionnaires were edited for completeness and consistency. Of the 41 questionnaires used in the sample, 32 were returned. The remaining 9 were not returned. Those returned represented a response rate of 78%, which the study considered adequate for analysis and making generalizations.

**Table 3: Response Rate**

<b>Questionnaire</b>	<b>Frequency</b>	<b>Percentage</b>
Returned	32	78%
Not Returned	9	22%
<b>Total</b>	<b>41</b>	<b>100%</b>

### **Hypothesis Testing**

Parametric statistical methods call for the dependent variables to be approximately normally distributed for each category of the independent variable, in this case, performance and innovation respectively. To be able to test for this normality, the following numeric and visual outputs were investigated: (i) Skewness and Kurtosis Z-Values, which should be between -1.96 and +1.96, (ii) The Shapiro-Wilk test p-value that should be above 0.05 (Razali & Wah, 2011), and (iii) Histogram, Normal Q-Q plots and Box plots, which should visually indicate that the data are approximately normally distributed. The Skewness and Kurtosis Z-Values were also calculated by dividing their measure by their respective standard errors (Doane & Seward, 2011).

**Test of Normality of Performance as a Dependent variable**

The Kolmogorov-Smirnov significance value is 0.200 ( $\alpha > .05$ ), which is not statistically significantly different from normal distribution and therefore the null hypothesis is accepted i.e. the performance data is normally distributed. Similarly, for Shapiro-Wilk at 0.977 and  $p = 0.718$  is not statistically significant, and we therefore fail to reject the null hypothesis and assume that the data for performance is approximately normally distributed.

**Table 5: Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Performance	.088	32	.200*	.977	32	.718

a. Lilliefors Significance Correction

\*. This is a lower bound of the true significance.

This can further be confirmed by calculating the Skewness and Kurtosis p-values. These yield values of -0.290 and -0.232 respectively as calculated from the values in Table 6, both of which lie between -1.96 and +1.96, and therefore, it can safely be assumed that the data for performance is approximately normally distributed.

**Table 6: Descriptive Statistics**

		Statistic	Std. Error
Performance	Mean	4.1302	.07557
	95% Confidence Interval for Mean	3.9761	
	Lower Bound	4.2843	
	Upper Bound	4.1424	
	5% Trimmed Mean	4.1250	
	Median	.183	
	Variance	.42751	
	Std. Deviation	3.08	
	Minimum	4.83	
	Maximum	1.75	
	Range	.67	
	Interquartile Range	-.290	.414
	Skewness	-.232	.809
	Kurtosis		

This is further confirmed by the Normal Q-Q plot as seen in figure 4.37 that show most of the dots running along the straight line.

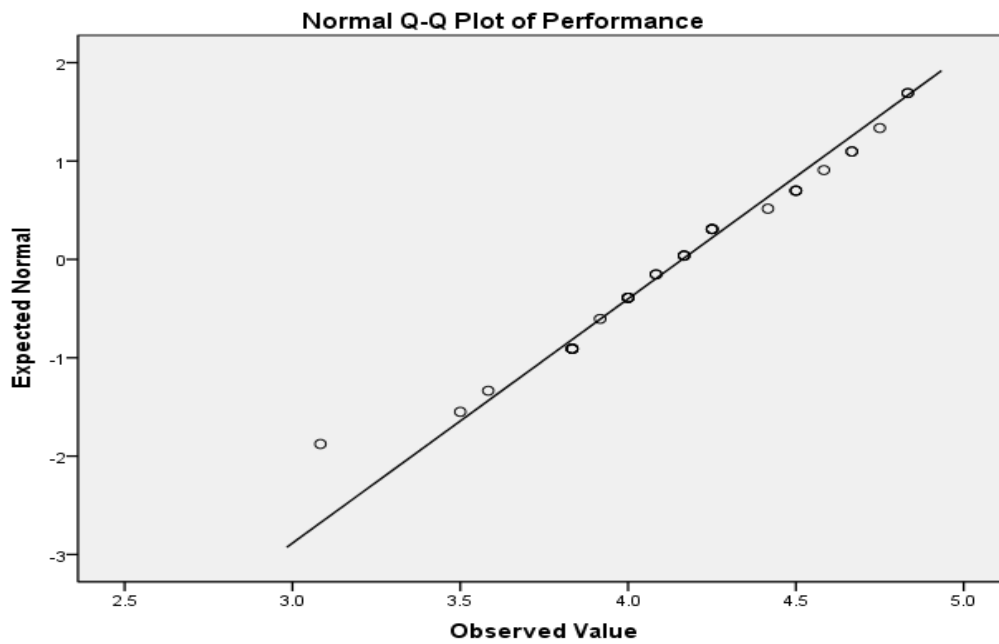


Figure 5: Normal Q-Q Plot

### Results of Testing Hypothesis 1

The testing of this hypothesis relates to the research objective: “To find out how organizational structure impacts on performance of commercial banks in Kenya.” The following null hypothesis was formulated to help accomplish this objective;

**Hypothesis 1 (H<sub>0</sub>):** *Organizational structure has no impact on performance in commercial banks in Kenya.*

Simple linear regression was run with performance as the dependent variable and organization structure as the predictor variable. This was performed with a view to test the nature of the relationship, if any, between organization structure and performance in commercial banks in Kenya. From the ANOVA table, organization structure is not a good predictor of performance in commercial banks in Kenya. Therefore, at a significance level of p-value = 0.500, which is greater than .05, the model is not significant at  $F(1,30) = 0.466, P = 0.500$ . This means that organization structure has no significant explanatory power over organization performance.

**Table 7: ANOVA<sup>a</sup> of the Regression of Organization Structure and Performance**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.033	1	.033	.466	.500 <sup>b</sup>
	Residual	2.126	30	.071		
	Total	2.159	31			

a. Dependent Variable: Performance

b. Predictors: (Constant), Organization Structure

This is further confirmed by the model summary where the Adjusted R square value is very small at -0.018 and thus not different from zero.

**Table 8: Model Summary<sup>a</sup> of the Regression of Organization Structure and Performance**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.124 <sup>a</sup>	.015	-.018	.26620

a. Predictors: (Constant), Organization Structure

The unstandardized coefficient for organization structure at -0.059 with a standard error of 0.086 is almost zero and therefore has no effect on the dependent variable, hence on the overall model. The level of the slope for organization structure is not significant because the t-test comparing that slope to zero is  $t = -0.683$ , which is so small, at a p-value = 0.500 which is greater than  $\alpha = 0.05$ . We therefore fail to reject the null hypothesis that the coefficient for organization structure is zero, and conclude that organization structure does not help to predict organizational performance.

**Table 9: Coefficients<sup>a</sup> of the Results of Regression of Organization Structure and Performance**

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.168	.334		12.486	.000
	Organization Structure	-.059	.086	-.124	-.683	.500

a. Dependent Variable: Performance

The relationship between organization structure and performance generally given as:  $Y = \beta_0 + \beta_1 X_1 + \epsilon$  can now specifically be represented as follows:

**Performance = 4.168 – 0.059 Organization Structure**

**Results of Testing Hypothesis 2**

The final objective; to enquire into the mediating role of innovation in the relationship between strategic knowledge capability and performance of financial banks in Kenya, was tested through the null hypothesis below:

**Hypothesis 2 (H<sub>0</sub>):** Innovation has no mediating role on the relationship between strategic knowledge capability and performance in commercial banks in Kenya.

**Innovation and Organization Performance**

Innovation is statistically significant in the model at:  $F(1,30) = 9.630$ ,  $p = 0.004$ . Therefore, innovation is a very good predictor of organizational performance in commercial banks in Kenya.

**Table 10: ANOVA<sup>a</sup> of the Regression of Innovation and Performance**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.525	1	.525	9.630	.004 <sup>b</sup>
	Residual	1.634	30	.054		
	Total	2.159	31			

a. Dependent Variable: Performance

b. Predictors: (Constant), Innovation

In this model, 24.3% of the variance in organizational performance can be attributed to innovation. This accounts for about a quarter of the variance in organization performance.

**Table 11: Model Summary<sup>a</sup> of the Results of Regressing Innovation and Performance**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.493 <sup>a</sup>	.243	.218	.23340

a. Predictors: (Constant), Innovation

The Unstandardized coefficient for innovation at 0.298 is also statistically significant. The relationship between innovation and organizational performance can thus be given as:

$$\text{Organization Performance} = 2.787 + 0.298 \text{ Innovation}$$

**Table 12: Coefficients<sup>a</sup> of the Regression Model of Innovation and Performance**

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	2.787	.375		7.442	.000
	Innovation	.298	.096	.493	3.103	.004

a. Dependent Variable: Performance

**Organization Structure and Innovation**

An analysis of the relationship between organization structure and innovation was also conducted. The ANOVA significance value was  $p = 0.124$ , which means that organization structure is once again a poor predictor of innovation. We therefore fail to reject the null hypothesis that there is no significant relationship between organization structure and innovation.

**Table 13: Coefficients<sup>a</sup> of the Regressing Organization Structure and Innovation**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.455	1	.455	2.500	.124 <sup>b</sup>
	Residual	5.456	30	.182		
	Total	5.911	31			

a. Dependent Variable: Innovation

b. Predictors: (Constant), Organization Structure

The model summary shows that organization structure explains a variation of only 7.7% of the variance in innovation. The relationship therefore, though positive, is very weak.

**Table 14: Model Summary<sup>a</sup> of the Regression of Organization Structure and Innovation**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.277 <sup>a</sup>	.077	.046	.42647

a. Predictors: (Constant), Organization Structure

The slope of the line for the level of organization structure predicting innovation at a t-value = -1.581 and significance of  $p = .124$ , which is greater than  $\alpha = .05$  makes the model statistically insignificant.

**Table 15: Coefficients<sup>a</sup> of the Regression Model of Organization Structure and Innovation**

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	4.715	.535		8.816	.000
	Organization Structure	-.217	.137	-.277	-1.581	.124

a. Dependent Variable: Innovation

The relationship between organization structure and innovation can be summarized as:



**Innovation = 4.715 – 0.217 Organization Structure**

**The Relationship between Organization Structure, Innovation and Performance**

Table 16 shows that the overall model;  $Y = \beta_0 + \beta_1X_1 + \beta_2M + \varepsilon$ , is statistically significant at  $p = 0.018$  which is less than  $\alpha = 0.05$ . The related F value from the same table to assess the overall statistical significance of the model is:

**$R^2 = 0.243$ , (2, 29) = 4.659, P= 0.018 (Significant)**

**Table 16: ANOVA<sup>a</sup> of the Regression of Organization Structure, Innovation and Performance**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.525	2	.262	4.659	.018 <sup>b</sup>
	Residual	1.634	29	.056		
	<b>Total</b>	<b>2.159</b>	<b>31</b>			

a. Dependent Variable: Performance

b. Predictors: (Constant), Organization Structure, Innovation

The Adjusted  $R^2$  value for the overall model is 0.191, which means that 19.1% of the variance in performance can generally be attributed to organization structure and innovation combined.

**Table 17: Model Summary<sup>a</sup> of the Regression of Organization Structure and Performance**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.493 <sup>a</sup>	.243	.191	.23736

a. Predictors: (Constant), Organization Structure

A look at the coefficients table 18 reveals that organization structure is statistically not significant in the relationship between organization structure, innovation and performance in commercial banks in Kenya. However, innovation is statistically significant in the same relationship.

**Table 18: Coefficients<sup>a</sup> in the Regression of Organization Structure and Performance**

Model		Unstandardized Coefficients		Standardized Coefficients		T	Sig.
		B	Std. Error	Beta			
1	(Constant)	2.753	.564			4.880	.000
	Innovation	.300	.102	.497		2.955	.006
	Organization Structure	.007	.080	.014		.084	.934

a. Dependent Variable: Performance

The relationship between the predictor variables and performance can be summarized as:

$$\text{Performance} = 2.753 + 0.30 \text{ Innovation} + 0.007 \text{ Organization Structure}$$

**Results from Secondary Data**

Secondary data sources, mainly Central Bank of Kenya Annual Bank Supervisory Reports were reviewed with a view to analyse the performance of the banking sector in Kenya for the years, 2013 - 2015. Specific attention was paid to the key performance indicators namely number of employees, market share, number of customers, profit before tax, return on assets and return on equity. The findings were as follows:

**Employment in the Banking Sector**

A review of the total number of employees in the banking sector in Kenya between the year 2013 and 2015 shows a total increase of 6.3%. On a year to year basis, the change between the year 2014 and 2015 show a reduction of 2%. This reduction is partially attributed to a reduction caused by Dubai and Imperial Bank Limited that were placed under receivership in the year.

**Table 19: Employment in the Banking Sector**

Employee Category	2013	2014	% Change	2015	%Change
Management	8,627	9,584	11.1%	10,310	7.6%
Supervisory	5,682	6,464	13.8%	6,973	7.9%
Clerical and Secretarial	17,978	18,539	3.1%	16,503	-11.0%
Support Staff	1,772	2,336	31.8%	2,426	3.9%
<b>Total</b>	<b>34,059</b>	<b>36,923</b>	<b>8.4%</b>	<b>36,212</b>	<b>-2.0%</b>

Source: CBK – Bank Supervision Reports

**Growth in Customer Base and Market Size**

From Table 20, the number of deposit account holders in the banks in Kenya showed growth from year to year. From the year 2013, that number has shown improved growth with a growth of 37.9% in 2013 over 2012, 30% in 2014 and a modest 23.8% in 2015. Once again, the reduced growth in 2015 could be partially explained by the turbulence then that saw the closure of two banks.

When it comes to market size, this shows an erratic pattern from 2012 to 2015. This can be seen from Appendix III. Between the year 2012 to 2015, 20 bank out of 40 that were open by the end of that year show a reduction in their market share index. This is 50% of all banks as at the end of 2015. Market share index is the composite of net assets, deposits, capital, number of deposit accounts and number of loan accounts. Between 2012 and 2014, and 2012 and 2013, 12 and 25 banks respectively saw a reduction in their market share index. These values represented 27.9% in 2014 and 58.1% in 2013.

**Table 20: Growth of Deposit Account Holders Compared to Number of Staff**

Year	No. of Deposit Account Holders	Percentage Increase in Deposit Account Holders	Number of Staff	Efficiency Score
2010	11,881,114	-	28,846	412
2011	14,250,503	19.9%	30,056	474
2012	15,861,417	11.3%	31,636	501
2013	21,880,556	37.9%	34,059	642
2014	28,438,292	30.0%	36,923	770
2015	35,194,496	23.8%	36,212	972

*Source: CBK – Bank Supervision Reports*

### **Prof it Before Tax**

The prof it before tax for the banks in 2013 to 2014 shows a growth with a slight reduction in 2015 over 2014. The actual figure for prof it before tax for 2013 was Kenya shillings 125.76 Billion, 141.145 Billion in 2014 and 134.017 Billion in 2015. This shows a highly profitable sector of the Kenyan economy.

**Table 21: Income and Expenditure Items as a Percentage of Total Income and Total Expenses**

Income	2013		2014		2015	
	Ksh. M	% of Total Income	Ksh. M	% of Total Income	Ksh. M	% of Total Income
Interest on Advances	211,391	58.4%	247,170	59.0%	279,324	61.15%
Fees and Commission for Loans and Advances	19,676	5.4%	21,614	5.2%	20,614	4.51%
Other Fees and Commission Income	33,869	9.4%	41,395	9.9%	42,245	9.25%
Interest on Government Securities	56,752	15.7%	62,330	14.9%	67,835	14.85%
Interest on Placement	5,344	1.5%	5,172	1.2%	9,922	2.17%
Other Income	35,144	9.7%	41,017	9.8%	36,870	8.07%
<b>Total Income</b>	<b>362,177</b>	<b>100%</b>	<b>418,698</b>	<b>100.0%</b>	<b>456,810</b>	<b>100.0%</b>
<b>Expenses</b>						
Interest Expenses	83,793	23.1%	103,635	24.8%	133,126	41.24%
Bad Debts Charge	12,876	3.6%	17,159	4.1%	28,778	8.92%
Salaries and Wages	68,820	19.0%	75,371	18.0%	77,572	24.03%
Other Expenses	70,928	19.6%	81,387	19.4%	83,316	25.81%
<b>Total Expenses</b>	<b>236,416</b>	<b>65.3%</b>	<b>277,552</b>	<b>66.3%</b>	<b>322,792</b>	<b>58.48%</b>
<b>Prof it Before Tax</b>	<b>125,760</b>	<b>34.7%</b>	<b>141,145</b>	<b>33.7</b>	<b>134,017</b>	<b>41.52%</b>

Source: CBK – Bank Supervision Reports

### Return on Assets and Equity

The Return on Assets in the banking sector between 2013 and 2014 was more or less stable at 4.7% and 4.46% respectively, with a slight drop in 2015 to 3.86% attributable partly to the three banks that were placed under receivership. The Return on Equity shows a similar pattern, at a growth of 29.2% in 2013, 28.2% in 2014 and 24.4% in 2015 as can be seen from Appendix IV.

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## **Summary, Conclusions and Recommendations**

This research sought to find out the relationship between strategic knowledge capability, as defined by organization structure, and performance in commercial banks in Kenya with specific interest on the mediating role of innovation. Innovation would not be possible in the absence of the requisite knowledge capability. The main objective of this study was to analyze the relationship between strategic knowledge capability and firm performance. Specifically, the study sought to fulfill the following objectives: find out how organizational structure impacts on the performance of commercial banks in Kenya, establish the effect of organizational culture on this performance, determine the effect of people characteristics on performance, analyze how information technology influences performance in commercial banks, and finally, enquire into the mediating role of innovation in the relationship between strategic knowledge capability and performance of financial banks in Kenya. These objectives were met as follows;

### **Specific Objective 1:** *Find out how organizational structure impacts on the performance of commercial banks in Kenya*

The study suggests that organization structure has no statistically significant effect on organizational performance. This could be as a result of formalization and specialization with the banks. Different departments sit in different places or offices away from others. For example, bank tellers are stationed within branches and rarely interact employees from other departments. At the same time, salespeople are on their own as are operations people. This kind of arrangement does not promote understanding of bank processes among employees from end to end. As a result, it is difficult for employees to come up with ideas to improve processes and systems. As it is now, their ideas may only be useful to the single task they perform. Such ideas may at time work against other processes within the system leading to inefficiencies.

### **Specific Objective 2:** *Enquire into the mediating role of innovation in the relationship between strategic knowledge capability and performance of financial banks in Kenya.*

Innovation as a variable in this research had the largest positive and statistically significant relationship with performance in commercial banks in Kenya. This means that performance in banks in Kenya is largely driven by innovation. Banking services and products are more or less uniform across the industry, with small differences here and there. At the same time, new products in the sector are usually very easy to copy and improve on by competitors. Further, their competitors are no longer just banks but other players in the financial services industry, including mobile service providers, foreign exchange bureaus, payday lenders and many others. As such, players in the banking industry have no choice but to keep innovating. The knowledge capability of a bank then becomes evident in the rate and level of innovation that takes place in the organization.

When the effect of organization structure and innovation combined on performance is investigated, the relationship is found to have a small positive effect. This means that innovation has a positive effect or a modifying effect on the relationship. However, organization structure significantly reduces the extent of the relationship between innovation and performance in commercial banks in Kenya.

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## **CONCLUSION**

The results of this study suggest that there is no statistically significant relationship between organization structure and performance in commercial banks in Kenya. At the same time, organizational structure also has no significant relationship with innovation, which has a significant positive relationship with performance. As earlier stated, knowledge has become an important resource for firms. This means that it is important for every firm to develop their strategic knowledge capability by putting in place mechanisms to help them create, share and utilize knowledge. To develop strategic knowledge capability, a firm needs to adapt her structure to facilitate and support this creation, sharing and utilization of knowledge. This is because several studies (Mahmoudsalehi, Moradkhannejad & Safari, 2012; Chen & Huang, 2007) have revealed a positive relationship between organization structure and Knowledge Management. Therefore, creating a knowledge based organizational structure is very important for knowledge management process (Gelard, Emamisaleh, Hassanabadi & Radi, 2013) and development of strategic knowledge capability for sustainable competitive advantage. Banks in Kenya thus need to look at their structure and find out why it does not support performance. The results of this study therefore contribute to the understanding of the relationship between strategic knowledge capability and performance in commercial banks in Kenya, and the fact that there is a need to review this relationship with a view to review it in such a way as to help them contribute to their performance as is the case in many other firms studied by other researchers. Further, it confirms the role of innovation as an important factor that positively influences performance in firms.

## **RECOMMENDATIONS**

### **Information Technology**

Banks hold large volumes of data acquired over many years of their operations. This arises out of the fact that most bank customers hold more than one product and use various different services, sometimes severally each month. They also hold data for potential customers that approached them for various products and services that they were unable to provide at the time of request but could become useful later on in helping them come up with new products and services. Such data could also be used to get new customers when such services later on become a reality. Some of the banks in Kenya have been operating for over one hundred years, and have information in various forms spanning that period of time. This data is known as big data. Big data is high-volume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation (Gartner, 2012). It is an evolving term that describes any voluminous amount of structured, semi-structured and unstructured data that has the potential to be mined for information. For this data to be useful to the banks, and to be used to grow their strategic knowledge capability, there is a need for the wide variety and extremely large volume of data held to be integrated into systems capable of handling big data, and the velocity at which the data can be processed looked at in terms of the systems' capability to ensure that it can be accessed easily and with speed whenever the need arises. This will only be possible with the right organizational structure to manage these systems effectively.



## **Employees**

Employees are a key resource of the banks. They carry the strategic knowledge that drives innovation within those institutions. Even as the sector embraces technology and experiences a declining need for brick and mortar establishments, people will still be needed to come up with and drive innovations in this area. Growing their capability to keep up with the changing customer needs and business environment therefore is important. There is a need for continuous training to up-skill them to become technologically savvy. Above all, these employees need to fit in an appropriate organizational structure that will promote the growth of knowledge capability through creation, sharing and utilization of knowledge.

## **Suggestions for Further Studies**

Different organizations adopt different organization structures to help them meet their strategic objectives. Some use a mixture of these structures and even keep changing those adopted to suit certain situations. There is a need for further research to find out exactly what in the organization structure in commercial banks in Kenya causes it not to have a significant and positive impact on performance. Further, there is also a need to study the structure in commercial banks and come up with suggestions on how this can be structured to positively contribute to their performance for sustainable competitive advantage.

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