Role of Innovation Capability on firm performance in the context of Commercial Banks in Nairobi City County, Kenya

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ABSTRACT

The Kenyan banking industry is characterized by increased environmental dynamism brought about by rapid technological development, customer sophistication and regulations. The achievement and sustenance of competitive advantage is important as any organization that does not gain and sustain this may not survive. In order for an organization to remain relevant, it must be able to leverage on innovation capability for effective adaptation to changes in the environment. This study therefore sought to assess the influence of innovation capability on performance of Commercial Banks in Nairobi City County, Kenya. The study was anchored on dynamic capabilities theory and resource-based view. Descriptive research design was used for this study. The target population was Commercial Banks in Nairobi City County. The unit of analysis was the commercial banks while the unit of observation was management. Data was gathered using self-administered questionnaire then analyzed using Statistical Package for Social Sciences (SPSS Version 25.0) software. Descriptive statistics such as frequencies, percentages and mean and inferential statistics such as correlation coefficient was used to analyze quantitative data. Charts, tables and graphs will be used to present the data. The study established that innovations capability positively and significantly affects performance. The study revealed that innovation capability is an important requirement for the effective management of inventions and creativity and the introduction of transformative technologies. The study recommends that in an era of faster competition and digitization, commercial banks in Nairobi City County, Kenya must increase their innovation capability. New innovations easily adopted in organizations enables banks to adjust to meet new customer needs and market changes. Innovation also enables creation of new products and services from time to time. Innovation capability of an organization affects organizational performance as it determines organization’s productivity and effectiveness.

Key Words: Dynamic Capability, Innovation Capability, Organizational Performance

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1. Introduction

Regulatory, systemic and technological forces are transforming the banking climate around the world dramatically, causing extreme competitive pressures (Grigoroudis, Politis and Siskos, 2012). Competition in the banking sector is booming owing to the proliferation and standardization of the services that banks are providing their customers. High-quality service delivery helps to build and sustain long-term customer partnerships (Rust & Oliver, 1994; Awan et al., 2011). It's an open secret that banking has transformed money business into the
information market (Lamb, 2001). Dynamic Capabilities (DCs) is aimed at creating potential capital, which ensures that they are usually susceptible to short-term cost-cutting constraints, because the valubility of their effect can be assessed only ex post. Zollo and Winter (2002) and Winter (2003) assert that retaining complex skills is costly and an ad hoc solution could be less costly. Ten years on from the world financial crisis, the banking sector has regained its health and according to the EY 2018 Global Banking Outlook Survey, the mood of the bankers is more buoyant. The banking sector is facing a time of major upheaval and is a key priority has emerged to restore customer confidence, which was badly shaken during the financial crisis. More assertive consumers are continually asking their Banks to provide superior service quality and ease of use. In fact, there is also a need to tackle the emerging legislative changes surrounding capital and risk management. (CBK, 2016).

The damage sustained during the financial crisis has made operating efficiency improvements a strategic imperative. The industry is also entering an intensified regulatory era. Banks are now stricter capital adequacy and risk management requirements are enforced, along with an intensified pressure on their traditional business structures and operating margins. In the future, several primary goals for the banking industry have arisen, including: regain consumer confidence; Address issues such as low channel efficiency; outdated technology; increasing operating costs and complex processes. Innovation is constantly seen as a gateway to achieving these goals, including the creation of consumer-centric solutions. Several companies, global and local, big and small, have adjusted their business and consumer approaches according to Deloitte 2018 banking industry outlook. (Deloitte, 2018)

The Kenyan sector in banking has gained from solid fundamentals; a consequence due in large part to diligent regulatory oversight by the Central Bank of Kenya (CBK). But 2016 provided the industry its fair share of navigational challenges. External factors have dampened results such as the outbreak of violence in South Sudan where a number of banks such as Kenya Commercial Bank (KCB) and Equity Bank Group were working profitably. The limit put on the banks in lending rates in 2016 has contributed to confusion over the results in the near term, but overall the outlook for lenders in the country is good. Nonetheless, a key driver of development for Kenyan banks remains their capacity to tailor services to suit Kenyan needs, helping the country reach 75% of the highest rate of financial inclusion in the developing world. Sector problems may also have briefly slowed growth, but for the medium term, Kenyan banks ' underlying fundamentals look strong and stable. Kenya's banks are rapidly growing, open, creative and ever better regulated. This in turn will improve our banking industry's customer confidence resulting in good performance.

2. Literature Review

2.1 Dynamic Capabilities Theory

This theory DCT was first formulated by David Teece, Gary Pisano and Amy Shuen (1997). Later Ambrosini and Bowman (2009) indicated that the paper provided the first contribution that brought distinctive idea of dynamic capabilities. DCT indicate that RBV theory does not bring a clear demonstration of the criteria that is applied in some of the companies that are successful in undertaking rapid and flexible innovation of products and timely responsiveness alongside capabilities of management to coordinate properly and redeploying external and internal competencies. It was further argued that there is need for considerations to be made on the situations of the external changing environment and therefore contributing to strategic management whose main concern is adaptation, reconfiguration and integration of internal as
well as external resources of the organization, skills and practical competency for dynamic environment.

The theory derives its principles from the research on daily organisation, core competency, core capacity and rigidity, and ability to absorb. Dynamic capacities act as a buffer between the capital of businesses and the changing business climate by having an organization improves the resource base and thus preserves its competitive advantage, which could otherwise be compromised, in its longevity. Dynamic Capacities Perspective (DCP) relates to a company's ability to gain new ways of competitive advantage by expertise retention, organizational resources and the adjustment to a changing business environment. This ability is complex because the organization must constantly create, adjust and reconfigure its internal and external competences to respond to the changing business climate because time-to-market and product positioning become important, the rate of technological progress is high, and it is difficult to determine the essence of future competition and markets (Teece et al., 2001)

2.2 Resource-Based View

The resource-based perspective (RBV) of the business, a paradigm that draws heavily from Penrose (1959) philosophy of entrepreneurial development and is popularized by works by Wernerfelt (1984) and Barney (1991), has become the methodological foundation for a number of studies. The RBV's conventional models first theorized in 1991 and are still known as one of the most effective frameworks for researching and evaluating resource management partnerships after 20 years. (Barney et al.,2011). This principle underlines the value of organizational internal resources to gain a competitive advantage. When they act rationally, a resource holder can maintain a relative position vis-à-vis other holders (Wernerfelt, 1984). Moreover, Barney (1991) arguments that undertakings in the same sector may be heterogeneous in terms of their own capital and because resources cannot be easily transferred between undertakings, the heterogeneity and the consequent competitive advantage acquired could be long-lasting.

The resource-based view (RBV) defines an enterprise as a pool of resources and expertise (Nath et al., 2010) capable of creating and the competitive advantages (Talaja, 2012).Barney (1991) identified four resource characteristics capable of maintaining the competitive advantage of a business, namely durability, scarcity, imperfect imitability and imperfect replaceability; Amit and Schoemaker (1993) called as inventories of open factors owned or controlled by the Company. These comprised tangible elements such as financial and physical properties, machinery, land and buildings and intangible elements such as human resources, consumer trust, company credibility and know-how (Nath et al., 2010). The outlook on resources indicates that higher corporate efficiency depends on how shipping service suppliers exploit their capital (Lai, 2004). Gavronski et al. (2011) ability perceived to be the corporate ability to use current resources for projects or events. Wu (2010) concluded that a company should exploit its resources to create competitive advantage.

This theory is deemed relevant to the current study because it sees the resources of the firm as an imperative for superior performance. If a resource exhibits value, rarity, imitatibility, organizational attributes (VRIO), as they enable the company to gain and maintain competitive advantage. RBV claims that it is easier to achieve a sustainable competitive advantage taking advantage of intrinsic rather than external factors relative to manufacturing organizations.
2.3 Empirical Literature Review

Lily and Juma (2014) in a study on how strategic innovation influences the performance of commercial banks operating in Nairobi County, used structured questionnaires only in collecting data. Structured questionnaires have a high degree of bias that reduces reliability. Similarly, Pilisi et al., (2016) utilized structured questionnaires to collect data on the impact of vital innovation capabilities on performance of supermarkets, medium and merchant managed retail in Nairobi County. Gor et al., (2015) studied the evidencing enablers of innovation capabilities and their effects on organizational performance and analyzed data through standardized questionnaires. Tatoi and Senaji (2017) study of the relationship that exists between innovation capability and corporate performance of commercial banks in Kenya, operational capability expressed a low Cronbach alpha value of 0.58 than the required. In another study by Maseki (2012) on the knowledge management and performance of commercial banks in Kenya; the study found that knowledge management greatly affected performance of the commercial banks. Knowledge management enhanced product and service quality; increased productivity and innovative ability. Knowledge management improved performance of employees on their duties in the bank and enhanced employee competence. Knowledge management enhanced the ability of the bank to develop new innovative financial products for its customers, turnaround time of employees, communication process in the bank and profitability of the bank. Got et al., (2015) carried out a study on the evidencing enablers of innovation capabilities and their effects on organizational performance.

A longitudinal study by Pelham and Wilson (1996) tested dynamism and competitive intensity for their influence on strategy and market-orientation, including customer-orientation, in small enterprises but didn’t find strong support for their hypotheses. Boccardelli and Magnusson (2006), in their study on dynamic capabilities in early- phase entrepreneurship and mobile internet industry. The analysis highlighted the importance of entrepreneurs to combine the search for distinctive skills that provide competitive advantage, and the innovation and improvisation required to respond to market changes, but mostly regarded the fluid capacity as a technical dimension. The study of Bakar and Ahmad (2010) also showed that intangible resources of SMEs in Malaysia were significantly related to product innovation competitive advantage. Terziovsk’si (2010) research also revealed that innovation and strategy were the predictors of the competitive advantage of SMEs in the manufacturing sector in Australia. Studying small and medium-sized enterprises, Appiah-Adu (1998) concluded that market dynamism and competitive intensity have a direct influence on customer-orientation, but they do not find empirical support for their thesis. Ngeera (2013) discussed the use of complex capacity strategies in Kenya’s commercial banks and recommended a further research on other institutions that experienced bad results in their dynamic capability approaches and those that had disastrous approach.

Lerner and Almor (2002) performed a study on the partnerships between strategic strengths and the competitive advantage of small businesses operated by women. The findings were that the competitive advantage of companies relied on political, Expertise in accounting and management. Bakar and Ahmad’s research (2010) also found that intangible capital of SMEs in Malaysia were substantially related to the competitive advantage of product innovation. Research by Terziovsk (2010) has also reported that creativity and planning are predictors of SMEs’ competitive advantage in Australia’s manufacturing sector. Lily and Juma (2014) in a study on how strategic innovation influences the performance of commercial banks operating in Nairobi County, used structured questionnaires only in collecting data. Structured questionnaires have a high degree of bias that reduces reliability. Similarly, Pilisi et al., (2016)
utilized structured questionnaires to collect data on the impact of vital innovation capabilities on performance of supermarkets, medium and merchant managed retail in Nairobi County. Gor et al., (2015) studied The Evidencing Enablers of Innovation Capabilities and their Effects on Organizational Performance and analyzed data through standardized questionnaires. Tatoi and Senaji (2017) study of the relationship that exists between innovation capability and corporate commercial banks’ performance in Kenya, operational capability expressed a low Cronbach alpha value of 0.58 than the required.

As a result of reviewing both the existing empirical and theoretical literature, the relationship between innovation capability and organizational performance is depicted in Figure 1 below.

**Figure 1: Conceptual Framework**

**Source: Literature Review (2018)**

The research hypotheses for this study were as follows;

\[ H_0: \text{Innovation capability has no statistically significant effect on performance of Commercial Banks in Nairobi City County, Kenya} \]

\[ H_1: \text{Innovation capability has a statistically significant effect on performance of Commercial Banks in Nairobi City County, Kenya} \]

### 3. Research Methodology

A study design is the analysis strategy and framework the researcher conceives to gain responses to research questions. The strategy is the researcher's ultimate scheme or method, which specifies what the researcher did from formulating theories, operationalizing the sample variables to the actual analysis of the data (Cooper & Schindler, 2008). However, a study design often seeks to give trust that the design results reflect fact and hold high levels of precision and validity. This research study adopted a descriptive research design to describe the independent and dependent variable. The design is about figuring out where, how and what of a phenomena (Kothari, 2011). This research design has been successful used in past empirical studies (Mbai, Kinyua & Muhoho, 2018; Kobia & Kinyua, 2018; Kimaru & Kinyua, 2018; Gatuyu & Kinyua, 2020; King’oo, Linda & Kinyua, 2020; Muthoni & Kinyua, 2020; Ontita & Kinyua, 2020). The target population of this study encompassed employees of 42 commercial banks operating in Nairobi City County. The unit of observation included employees holding managerial positions of operations, and sales and marketing at the head offices of the 42 commercial banks.

Purpose sampling was used to select the two managerial positions that were considered to have the custody of the information of interest. Subsequently, a census survey of was conducted involving all the 84 managerial employees purposively selected for the purpose of this study. Questionnaires method was used to collect primary data from the field for purpose of data
The questionnaire was subjected to the tests of validity and reliability. Face validity was subjectively evaluated by the researcher that is the extent to which the researcher believes the questionnaire is appropriate. The study also relied on questionnaire developed in other related studies, as well as concepts generated from a broad range of appropriate literature. Content validity was used to examine whether the content of the research questionnaire covers representative sample of the construct domain to be measured. A rational analysis of the questionnaire was done by raters who are familiar with constructs of interest. Construct validity will be assessed through convergent validity tests. Convergent validity refers to the degree to which the scale correlates in the same direction with other measure of the same construct.

The internal consistency of the research instrument was measured by use of Cronbach’s Alpha method. Cronbach’s Alpha is a reliability coefficient that indicates how well items in a set are positively correlated to one another. As a rule of thumb, reliability value of 0.7 and above is recommended for most researches to denote the research instrument as reliable. This study used a cutoff point coefficient of 0.7 and above as a strong measure of reliability. The filled in questionnaires were checked for accuracy, comprehensiveness and consistence. The data analysis process involved several stages to sort the data for order such as data clean-up which entailed editing, coding, and tabulation to identify any errors. Specific numerical values were also assigned to the responses for further analysis. The assigned codes during editing ensured that errors were minimized during data entry and data processing to enable result interpretations. Quantitative data were analyzed using descriptive statistics and inferential statistics. Descriptive statistics included percentages, frequencies, mean, and standard deviation and the results were presented using figures and tables. Inferential statistics applied simple linear regression analysis model \( Y = \beta_0 + \beta_1 X_1 + \varepsilon \) Where; \( Y \) is the Organizational Performance, \( X_1 \) = Innovation Capability, \( \beta_0, \beta_1, \varepsilon \) = beta coefficients, \( \varepsilon \) = Error term.

Simple linear regression analysis was conducted to establish the relationship between innovation capability and performance of commercial banks in Nairobi City County. Analysis of Variance (ANOVA) was used to test the statistical significance of the model by indicating the probability of the occurrence of \( R^2 \). The F-statistic in the ANOVA table was used to measure the fitness of the estimated regression model at 95% level of confidence where a p-value of at most 0.05 was used as the threshold for making the inference. The t-static for the research variables and corresponding p-values was used to ascertain the statistical significance of the beta coefficients generated in the regression analysis. In this case, a p-value of at most 0.05 was considered as the threshold for establishing if the corresponding beta coefficient was statistically significant at a 95% level of confidence.

4. Research Findings

A total of 84 questionnaires were administered to both branch managers and operation managers. A response rate of 94.1% and a non-response rate of 5.9% was achieved. As per Baruch's (2012) recommendation, a response rate above 80 percent is appropriate for data analysis. Therefore, the study response rate of 94.1 percent was deemed suitable for data analysis. This meant that the research findings of the study were accepted and credible due to high response rates.

4.1 Descriptive Statistics

Descriptive statistics including sample mean (M) and sample standard deviation (SD) have been used to address quantitative data using version 17.0 of the Statistical Package for Social Sciences (SPSS). The findings of the descriptive statistics were based on study specific variables and presented as follows;
Table 1: Descriptive Analysis for Innovation Capability

<table>
<thead>
<tr>
<th>Statement</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>The bank can easily adapt to market changes</td>
<td>4.13</td>
<td>1.136</td>
</tr>
<tr>
<td>New products and services are created from time to time</td>
<td>4.09</td>
<td>0.819</td>
</tr>
<tr>
<td>New technologies are easily adopted in the organization</td>
<td>4.32</td>
<td>0.589</td>
</tr>
<tr>
<td>The bank easily adjusts to meet new customer needs</td>
<td>4.14</td>
<td>0.828</td>
</tr>
<tr>
<td>The bank is involved in creating new markets</td>
<td>4.53</td>
<td>0.574</td>
</tr>
<tr>
<td>Employees help in improving the existing bank products</td>
<td>4.51</td>
<td>0.618</td>
</tr>
<tr>
<td>Services are improved to serve customers better</td>
<td>4.61</td>
<td>0.517</td>
</tr>
</tbody>
</table>

**Average Score**

<table>
<thead>
<tr>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.33</td>
<td>0.726</td>
</tr>
</tbody>
</table>

**Source: Research Data (2020)**

The respondents strongly agreed that services are improved to serve customers better, the bank is involved in creating new markets and that employees help in improving the existing bank products with respective mean of 4.61, 4.53 and 4.51 and standard deviation of 0.517, 0.574 and 0.618 respectively. The respondents agreed that new technologies are easily adopted in the organization, the bank easily adjusts to meet new customer needs, the bank can easily adapt to market changes and that new products and services are created from time to time with respective mean of 0.589, 0.828, 1.136 and 0.819.

Table 2: Descriptive Analysis for Organizational Performance

<table>
<thead>
<tr>
<th>Statement</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generally, our performance has grown significantly</td>
<td>4.32</td>
<td>0.539</td>
</tr>
<tr>
<td>The bank has registered organic growth over the last one year</td>
<td>4.53</td>
<td>0.574</td>
</tr>
<tr>
<td>The bank has higher market share compared with other rivals in the same field</td>
<td>3.78</td>
<td>1.533</td>
</tr>
<tr>
<td>Over the last financial year our revenue performance has increased over time to a sum of over 1 billion marks</td>
<td>3.42</td>
<td>1.729</td>
</tr>
<tr>
<td>In the last financial year our revenue performance has increased to a record of more than 1 billion marks.</td>
<td>4.81</td>
<td>0.833</td>
</tr>
<tr>
<td>Our market share has grown by more than 20 per cent in the last financial year</td>
<td>3.97</td>
<td>0.357</td>
</tr>
</tbody>
</table>

**Average Score**

<table>
<thead>
<tr>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.14</td>
<td>0.928</td>
</tr>
</tbody>
</table>

**Source: Research Data (2020)**

The respondents strongly agreed that over the last financial year, revenue growth has increased over time to a total of more than 1 billion marks and organic growth has been reported by the bank in the last year with 4.81 and 4.53 as respective mean score and 0.833 and 0.574 as respective standard deviations. In addition, the respondents agreed that the share of market had increased for the previous financial year by more than 20 per cent and that the bank has higher market share compared with other rivals in the same field with 3.97 and 3.78 as mean scores.
respectively and 0.357 and 1.533 as respective standard deviations. Moreover, the respondents to a lower extent showed that there was an improvement over time on sales growth totaling to more than 1 billion marks in the last financial year with 3.42 mean score and 1.729 standard deviation.

4.2 Test of Hypotheses

Linear regression analysis was applied to examine effect of innovation capability on performance of commercial banks in Nairobi City County, Kenya. In particular, innovation capability was regressed on performance. Table 3 present regression analysis results.

Table 3: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.945a</td>
<td>.893</td>
<td>.888</td>
<td>.173</td>
</tr>
</tbody>
</table>

Source: Research Data (2020)

The result on adjusted R² indicated that innovation capability explain 88.8 percent of the changes in the performance of commercial banks in Nairobi City County, Kenya. This means that other variables not studied contribute 11.2% of the organizational performance.

Table 4: Analysis of Variance

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>18.613</td>
<td>4</td>
<td>4.653</td>
<td>154.955</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>2.222</td>
<td>74</td>
<td>.030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20.835</td>
<td>78</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research Data (2020)

Analysis of variance revealed that the estimated regression model had a good fit as demonstrated by an F-value of 154,955 at 5 percent level of significance or 95 percent confidence level.

Table 5: Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>0.637</td>
<td>.191</td>
</tr>
<tr>
<td>Innovations capability</td>
<td>0.782</td>
<td>.037</td>
</tr>
</tbody>
</table>

a) Dependent Variable : Organizational Performance

Source: Research Data (2020)
The regression model was estimated through the results of regression analysis as shown in Table 5. Organizational Performance = 0.637 + 0.782Innovation Capability. From the above regression model, it was established that a unit increase in innovation capability would lead to increase in performance of Commercial Banks in Nairobi City County, Kenya by a factor of 0.782. The study established that innovation capability had a positive and significant influence on organizational performance as indicated by t value (t= 4.910, p < 0.05). According to Lawson and Samson, D. (2018) innovation capability is defined as a firm’s ability to establish and turn innovative concepts into existing / better goods, services or processes that support the business. Sivalogathasan and Wu (2013) study on innovation capability for better performance which display that the intellectual capital aspect has a major positive connection to innovation capability and organizational success.

5. Conclusion

The main aim of this study was to investigate the effect of innovation capability on performance of commercial banks in Nairobi City County in Kenya. The study established that innovations capability positively and significantly affects performance. Notably, services are improved to serve customers better, the bank is involved in creating new markets and that employees help in improving the existing bank products. The study concluded that innovation capability is an important requirement for the effective management of inventions and creativity and the introduction of transformative technologies. Increasing the capacity of a bank to innovate requires creating the correct system requirements for meeting expectations for innovation. The study recommends that in an era of faster competition and digitization, commercial banks in Nairobi City County, management must promote activities that seek to increase innovation capability.

References


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