

Relationship between Innovation Capability and Organizational Performance of Commercial Banks in Kenya

Christine Amujal Tatoi¹ and Thomas Anyanje Senaji²

¹ Kenya Methodist University, Kenya

Email: christinemalcom77@gmail.com

² Kenya Methodist University, Kenya

Email: tsenaji@gmail.com

Abstract

In order to thrive and survive in an environment that is competitive, each bank and/or business are required to have a strategic capabilities levels. The aim of this study was to establish the extent to which innovation capabilities namely structural, operational, and personnel (staff) capabilities influence the performance of Kenyan commercial banks. The study target population comprised all the 42 commercial banks in Kenya whose head offices are located in Nairobi County. The target respondents were the human resource managers, operations managers and strategy and risk managers of these banks. A survey of 97 respondents from 42 commercial banks was conducted using structured questionnaire to collect data. Analysis of data was done using descriptive as well as inferential statistics with the aid of SPSS software. The findings of the clarify the relative importance of each of the three innovation capability dimensions significantly explain variation in performance of commercial banks. The innovation capability that had the strongest positive and significant association with performance was operational capability, followed by structural and lastly staff capability. These findings are can be used to guide in policy formulation and in management practice in banks and other organizations.

Keywords: Innovation Capability, Organizational Performance, Banks, Kenya

¹ Author, MBA candidate (corresponding author)

² Coauthor

Introduction

Innovation capability is characterized by Liao et al. (2009) as the capacity to make new and helpful information in view of past learning. The innovation capability is the far-reaching set of attributes of an association that encourage and bolster innovation methodologies. Hashi and Stojcic (2013), characterized innovation as a bigger request combination capability, that can shape and oversee distinctive key authoritative abilities and assets that effectively empower the innovation exercises. Innovation capability is an incredible capacity to give creative administrations and items ceaselessly to the clients through the authoritative abilities, limits and skills (Saunila et al., 2014).

Innovations have been found to affect operational performance as to profitability, lead times, quality, and adaptability (Kodama and Shibata, 2014).

The point of innovation capability entails the application of an arrangement of suitable process advancements to create new items that address showcase issues and in the meantime, have the capacity to react to sudden innovation exercises and aggressive conditions (Tidd and Bessant, 2009). This capacity to present another item rapidly and embracing the vital new procedures are integral to firms' upper hand (Kodama and Shibata, 2014).

Organizational performance can be portrayed as a way for all ideas that take into consideration the accomplishment of an organization and its exercises (Tangen, 2005). Organizational performance can allude to genuine outcomes/yields of specific exercises, how an action is done, or a capacity to accomplish results. Performance can be characterized as the accomplishment of results guaranteeing the delivery of alluring results for a company's partners (Atkinson, 2012).

The changes currently taking place in the international economy increasingly emphasize the role of innovations and innovativeness in the operation of enterprises and regions (Hashi & Stojcic, 2013). In a universe of expanding rivalry and technological change, the era and dissemination of innovations progressively depend upon new innovative information which is produced not just by learning forms inside interior RandD division, additionally by connections with sources of innovation in the frameworks of innovation (Ates et al., 2013; Camisón & Villar-López, 2014; Tidd, 2009). It is expressed that organizations with solid capability in creativity will pick up intensity than contenders, empowering them to accomplish predominant results (Rosenbusch et al., 2011; Li & Mitchell, 2009; Sok et al., 2013). Be that as it may, the connection between company's innovation capacities and performance is rarely inspected in the literature.

Late innovation capability research demonstrates the significance of social and nation impacts crosswise over outskirts. For instance, national culture has impacts on prepare organization and mechanical development capacity (Lin, 2009). The researcher highlighted that social qualities unequivocally affect advancement capacity and performance. By and by, there is so far couple of studies done in developing nations and there is an absence of research around there (Keskin, 2006; Peng et al., 2008; Kodama & Shibata, 2014). Another gap in the writing concerns the business setting which exhibits that advancement of an organization has not properly secured non-collected products and organizations sector (Bullinger et al., 2007; Hogan et al., 2011; Saunila et al., 2014). A huge segment of the exploration has been centered on collected items, for instance, auto and electronic enterprises (Bremmer, 2008, Yung & Lai, 2012).

Despite the number of studies concerning innovation, research that concentrates mostly on innovation as a capability remains rather limited more so in relation to organizational performance (Rhee et al., 2010; Gunday et al., 2011; Sok et al., 2013). Getting to know how innovation capability affects the performance of institutions is essential to administering organizational innovation. There is also scanty

information addressing innovation capability of banks as being influenced by structural capability, operational capability and staff capability providing a knowledge gap. Further, most studies are done in other industries in the developed economies and none in the developing countries, Kenya included. Therefore, this study aimed to bridge these huge gaps by establishing the relationship between innovation capability and organizational performance in the Kenyan commercial banks in an attempt to provide more empirical data in the local arena.

The purpose of the study was to determine the relationship between innovation capability and organizational performance of Commercial Banks in Kenya which included the structural capability, operational capability, personal capability and the combined effect of structural, operational and staff capabilities influence the performance of Kenyan commercial banks.

Theory and hypothesis

Structural Capability

The structural ability is productive in the course of action of definitive advancement capacity since affiliations should take the most supported position of their inside various leveled condition and structures for the change of new limits and spread of as far as possible (Colarelli O'Connor and DeMartino, 2012). Structural capacity demonstrates that moreover operational estimation, the structural changes of a relationship toward the foundation of an ability that causes the surge of the headway capacity in the affiliation acknowledge a colossal part in making strides. Some depict this as the ability for the blueprint of a stable structural instrument for change of all exercises toward bestowed goals to a definitive target of an impact on the speed of headway handle through framework for formative attempts and some others suggest it as a structural portion of a relationship for attestation of progression (Lichtenthaler&Lichtenthaler, 2009).

As shown by Momeni, Nielsen and Kafash (2015), the structural capability is penniless upon four cutoff points in an association: administrative farthest point, social utmost, communicational breaking point and authoritative information develop constrain which are based as for the limit and time of hierarchical information and hierarchical learning. A structural change of an association, toward setting up capacities with the ultimate objective of creating centered commonness is seen quite recently through administrative farthest point (Zawislak et al., 2013). One of the other most fundamental areas of development capacity is the data of affiliation which is accumulated in staff and data frameworks of affiliations and firms (Skiltere&Jesilevska, 2013). Recreating of the inward learning hints a time of new data inside the firm and recuperation of the outer data recommends the delineation of the getting of gaining from outside sources. Misuse of within data is the depiction of inside improvement and manhandle of the outer learning recommends the exchanging of figuring out how to outside of the affiliation (Camisón&Villar-López, 2014).Also, mishandle of data joins accentuation of new frameworks in various conditions and execution of the interior and outer ventures in different conditions since affiliations are unmistakable by nature and for survival in organic changes settle on various decisions for usage of their headways.

Furthermore, for the assistance of learning, an affiliation goes up against the issue of circuit or reliance of data which is a reference to the probability of the mix of interior and outer data. The correlative idea of interior and outside frameworks of learning requires coordination in the affiliation (Cassiman&Veugelers, 2011). An affiliation needs expansion in its learning for boosting consistence confine or changing normal conditions sooner than rivals recollecting the genuine target to be beneficial (Lichtenthaler&Lichtenthaler, 2009).

Inventive action may ascend out of any piece of the affiliation system, for example, legitimate correspondence limits, entrepreneurial breaking point and versatility, among others. Also, open purpose of restriction contributes eagerly to improvement, particularly in associations and in legitimate headway. A correspondence channel is a structural trademark that can be utilized by a choice unit to satisfy profitable advancement use inside affiliations. Beyond what many would consider possible implies as far as possible regarding systems association and cooperating with different affiliations (Momeni et al., 2015).

Operational Capability

The operational ability of an affiliation, which concentrates on innovative and operational exercises and breaking points of an affiliation, adds to the accomplishment of definitive targets and is under the impact of a techno-circle (Acur et al., 2010; Zawislak et al., 2012). Among a gathering of cutoff points which all affiliations use for the season of different overhauled things and associations, innovative limit has satisfied a conspicuous position in various examinations. The likelihood of mechanical purpose of restriction of a firm is depicted as the point of confinement of a firm in the utilization of headway and blend and recombination of parts and constituents, and the relationship among constituents, structures, frameworks and procedures (Kodam et al., 2014). Accordingly, the change of mechanical purpose of control requires the meander of time and resources for build up a structure for the progress and support of this cutoff (Ho et al., 2011).

Among different breaking points of a firm, the imaginative capacity is essential to a more basic degree. This is in light of the fact that it makes it attainable for the firm to develop new thoughts, strategies, and courses of action (Zawislak et al., 2012). Along these lines, firms with innovative capacities will most likely grow their advantage differentiated and the contenders (Ho et al., 2011).

In addition, the operational ability is in like manner dependent on the esteem based limits of an association (Acur et al., 2010). Achievement of centered transcendence through arrangements is empowered by what is called esteem based limit. Esteem based limit is, in fact, each one of the activities that a firm performs to diminish displaying, bargaining, and conveyance costs. Toward the day's end, reducing of trade costs winds up recognizably possible through esteem based limit. The piece of significant worth based limit in the establishment of advancement ability for the firm is bolstered on the condition that when the firm can make an item or an organization with creative prevalence differentiated and relative stock and ventures accessible organization, and treatment of their development for the express and clear target of positive money related compensation, they should have certain capacities with regards to trading their items and organizations (Zawislak et al., 2012).

Staff Capability

As per Momeni et al. (2015) work force (staff) capability is needy upon three limits in an organization: limit with respect to discovering openings, limit with respect to producing thoughts and limit with regards to singular knowledge which depend on the inventiveness and different capacities of HR. Finding and misusing ecological openings has reliably been a noteworthy test for the relationship in an encounter with the dynamic condition (Lichtenthaler, 2007). Along these lines, affiliations and firms need to wind up noticeably new and exceptional cutoff points and breaking points concerning misuse of new ecological open passages (Momeni et al., 2015). This is in light of the way that the affiliations which demonstrate more potential for misuse of new examinations are said to have greater advancement capacity separated and contenders. In this way, the hidden stage in the improvement

framework is finding, considering and creating headway open portals for the affiliation (Lichtenthaler&Ernst, 2012).

Further, the inventive ability hints the farthest point of a firm to overhaul through within data that is it demonstrates time of learning inside the work compel and staffs. This philosophy of data examination begins with the awareness of specific open gateways by the cunning of ace staff, and after the time of the new learning, they need to keep up a relationship between this new learning and nature opportunity (Raffai, 2014). The method of learning period customarily requires time since an improvement is more than an unimportant idea and the time of new information overall happens in light of a need (Tello and Zawislak, 2013). With the true objective of affirmation of regular open entryways, singular learning should be reactivated and retained with the new information. Likewise, it should be masked again through comprehension. Learning can be traded and changed since new information after some time so they could use and impel it later yet again (Raffai, 2014).

We this draw from the Resource Based View of the firm (Penrose 1959), the dynamic capabilities view (DCV) and the learning theory and hypothesis that innovation capability comprising structural, staff and operational capabilities influence organizational performance of extension

Methods

Research Design

This study used a descriptive design in obtaining data in the range of research. The descriptive study was utilized as a part of portraying the attributes of the current situation This was connected since it gave experiences into the research issue by depicting the variables of intrigue. It was utilized for characterizing, evaluating, foreseeing and inspecting acquainted connections. It helped in giving valuable and exact data to answer the inquiries in view of who, what, when, and how (Kothari, 2008).

Target Population

According to Ghauri and Gronhaug (2010), the population is the whole gathering under study as indicated by destinations of the research; it is the universe from which the sample is to be chosen. The study target population comprised all the 42 commercial banks in Kenya whereby three respondents from every bank were selected making the total sample respondents be 126. The targeted respondents were the Human resource managers, Operations Managers and Strategy and Risk Managers of the 42 commercial banks in Kenya. These officials were chosen from the population since they are the ones who were deemed more conversant with the subject matter therefore could provide more reliable information.

Sampling and Sampling Design

Sampling is defined as the process of selecting of the required number from the population (Kothari, 2008). This study conducted a census of all the 42 commercial banks in Kenya. To reduce biases, the study selected three respondents from every bank. The target respondents were classified into three categories comprising the Human resource managers, Operations Managers as well as the Strategy and Risk Managers of the 42 commercial banks in Kenya making the total sample respondents be 126. Hence the sample was likely to be more representative thus ensuring that every important parameter was represented.

Data Sources and Collection Instruments

The researcher gathered data from primary sources. The primary data was utilized because of its proximity to reality and straightforwardness for control over mistakes (Copper &Schindler, 2011). The study utilized a questionnaire to gather data. The researcher regulated questionnaires containing basically questionnaires that are closed in view of a Likert scale to the sample respondents. The Likert instrument has been appeared to have satisfactory levels of unwavering quality and legitimacy over an assortment of settings. It depends on a scale of 1 – 5, with 5 as the most effective and 1 as the least effective. Thus, every respondent got a similar arrangement of inquiries in the very same way. The questionnaires were set up in following objectives of this study consequently guarantying that lone applicable data was assembled. Questionnaires are most applicable where the population is literate and the information needed can be easily described in writing (Cooper &Schindler, 2011)

Validity. Validity was measured utilizing construct validity. The target of validity is to guarantee that the scale (question of the questionnaire) measures what it should gauge (Kothari, 2008). In this study content validity of the construct (creating, wording) estimations (of questionnaire items) was of worry from an early phase of questionnaire improvement. To guarantee the validity of the instrument, the researcher completely reviewed the significant literature, to empower advancement of an underlying rundown of things speaking to each of the study's constructs. At that point, this rundown of things was changed in view of suggestions from the supervisor.

Reliability. The data was tested for reliability to develop issues, for instance, information sources, techniques for accumulation, time of gathering, and the proximity of any slants and the level of precision (Cooper and Schindler, 2011). According to Mugenda&Mugenda (2003), reliability implies how much the exploration instrument can yield unfaltering results and information from repeated trials. Cronbach's alpha test was used to take a gander at within consistency of the information. According to Saunders (2009) suggestions, a score more than 0.70 was viewed as fitting for the examination. Consequently, this was used as a benchmark to find the reliability of parts expelled from the Likert-sort scale in the survey. Inner consistency of information is controlled by relating the scores gotten from one time with scores obtained from various conditions in the exploration instrument. The researcher corresponded things in the instruments to choose how best they relate. Where the coefficient was low, the tool was reviewed removing some items from the instruments.

Pilot Testing. A pilot testing (pre-testing) was conducted before data was collected to test the research instrument before administering it. Such tests help clarify on the instrument and appropriateness of the language and identify possible problems during the main study (Cooper & Schindler, 2011). By so doing, the study assessed the relevance of the research objectives as it tests the reliability of the research tools. It also enables the researcher to have an idea of how long it will take to complete the data collection using this tool. The respondents in pre-test did not participate in data collection. After the research instrument was successfully tested and reviewed, the researcher entered into active data collection

Data Collection Procedures

As a requirement, the researcher first obtained a letter from Kenya Methodist University approving the collection of data and conducting the study. The study used this letter as an introduction to the respondents. Once all the documentation was available, the researcher then conducted a pilot testing on the research tool to test on reliability and validity. To make the data collection exercise more effective, the study employed the services of research assistants. During data collection, the researcher

first sought to have a forum with each bank to arrange on how data collection was to be done, which helped to effectively collect data. When collecting data, the researcher and research assistants administered the questionnaire and then assisted the respondents to fill the questionnaire.

Data Analysis and Presentation

Data for the study was analyzed quantitatively which included descriptive and inferential methods. The descriptive statistics used in the research were frequencies, mean and standard deviation. Descriptive statistics was used to summarize, describe and display quantitative data. They gave a summary of the sample data collected and the characteristics it exudes. SPSS was used to analyze the data. The descriptive statistics generated enabled the researcher to present the findings in a clear and simple format using graphs, pie charts and frequency tables. For inferential statistics, a linear regression model was used to indicate the extent to which each independent variable affects organizational performance in the bank under study.

Ethical Considerations

To begin with the researcher looked for a letter from the Kenya Methodist University to enable her to direct the study. This study guaranteed secrecy and security of data accumulated from the respondents by guaranteeing that every one of the data gathered was guarded in authority. There was no writing of names on the questionnaire to abstain from uncovering their characters and the respondents were guaranteed of their confidentiality.

Results and Discussion

Reliability Test

The questionnaires were used to collect data which were pretested for validity and reliability. To measure their reliability, the researcher used Cronbach's Alpha. Cronbach's Alpha value is widely used to check the reliability of the constructs. Table 1 illustrates the results of the reliability test.

Table 1: Reliability Test

	Cronbach's Alpha	N of Items	Mean
Performance	.783	5	3.915
Structural capability	.743	8	4.019
Operational capability	.580	7	3.996
Staff capability	.760	7	3.953

The results showed that organizational performance had a Cronbach's alpha coefficient of 0.783, structural capability had a coefficient of 0.743, operational capability had 0.580 and staff/personnel capability had a coefficient of 0.760. Though three of the constructs showed an alpha above the suggested value 0.700, operational capability had a value of 0.580 which is close to 0.6 that is acceptable for completely new instruments (Hinton, Brownlow, McMurray and Cozens, 2004). Hence, on the premise of reliability test it was accepted that the scales utilized as a part of this exploration is dependable to catch the constructs.

4.2 Response Rate

On the response rate, out of the one hundred and twenty-six (126) questionnaires distributed to all the Commercial banks head offices within Nairobi 97 questionnaires were successfully filled and returned (Figure 1).

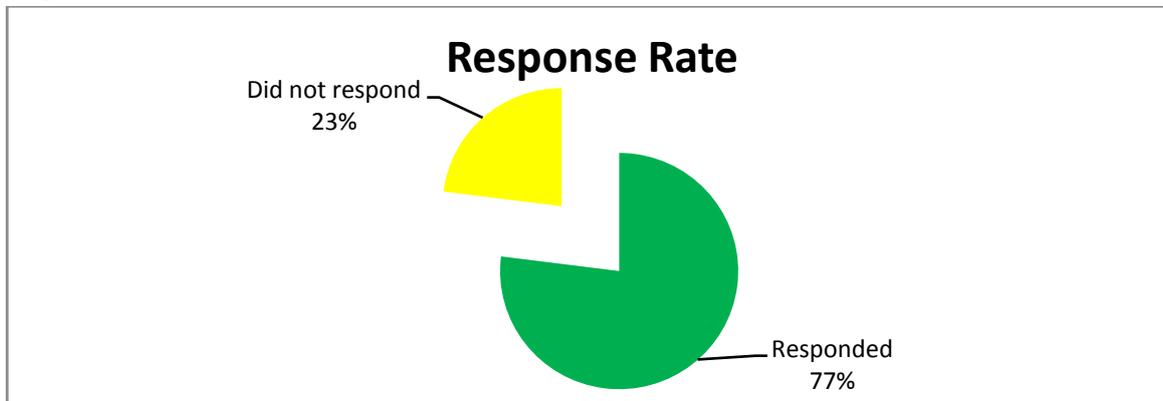


Figure 4.1: Response Rate

Source: Research Data (2017)

A response rate of 76.98% was achieved hence this rate was sufficient sample to provide reliable findings as Cooper and Schindler (2011) points that if the response rate is 60% and above then the social scientific study can proceed. As indicated by Mugenda (2003), a half response rate is satisfactory though a rate of 60% is good while a reaction rate over 70% is evaluated as being excellent. In view of this statement the response rate for this study can be said to be excellent at 76.98% since it was over 70%. As Cooper and Schindler (2011) points that if the response rate is 60% and above then the social scientific study can proceed. The high response, which was very good, can be attributed to the fact the researcher personally visited the respondents at their places of work and assisted them in filling the questionnaire.

Demographic Information

The demographic factors of the sample respondents in this study were assessed with respect to gender, age bracket, the length of time that they have worked for the bank and their level of education. The results are shown below:

Gender of Respondents

The study sought to determine the gender of the respondents as part of the demographic characteristics. Figure 2 shows their distribution.

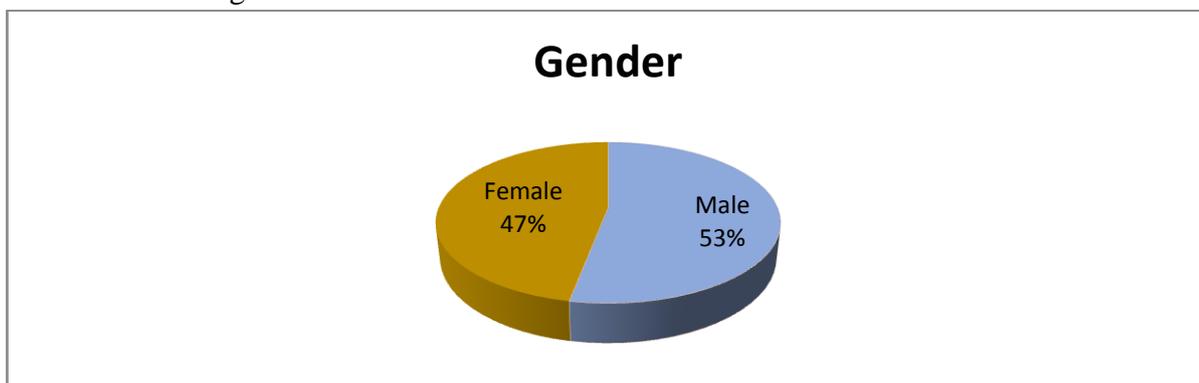


Figure 2: Gender of the Respondents

Source: Research Data (2017)

As illustrated in Figure 4.2 above, from the total sample of 97 respondents who responded 53% of the participants were male while the remaining 47% were female. These showed that majority of the managers in these banks were male.

Age of Respondents

The respondents we also asked to indicate their average age, the summary of their age distribution is shown in Figure 3.

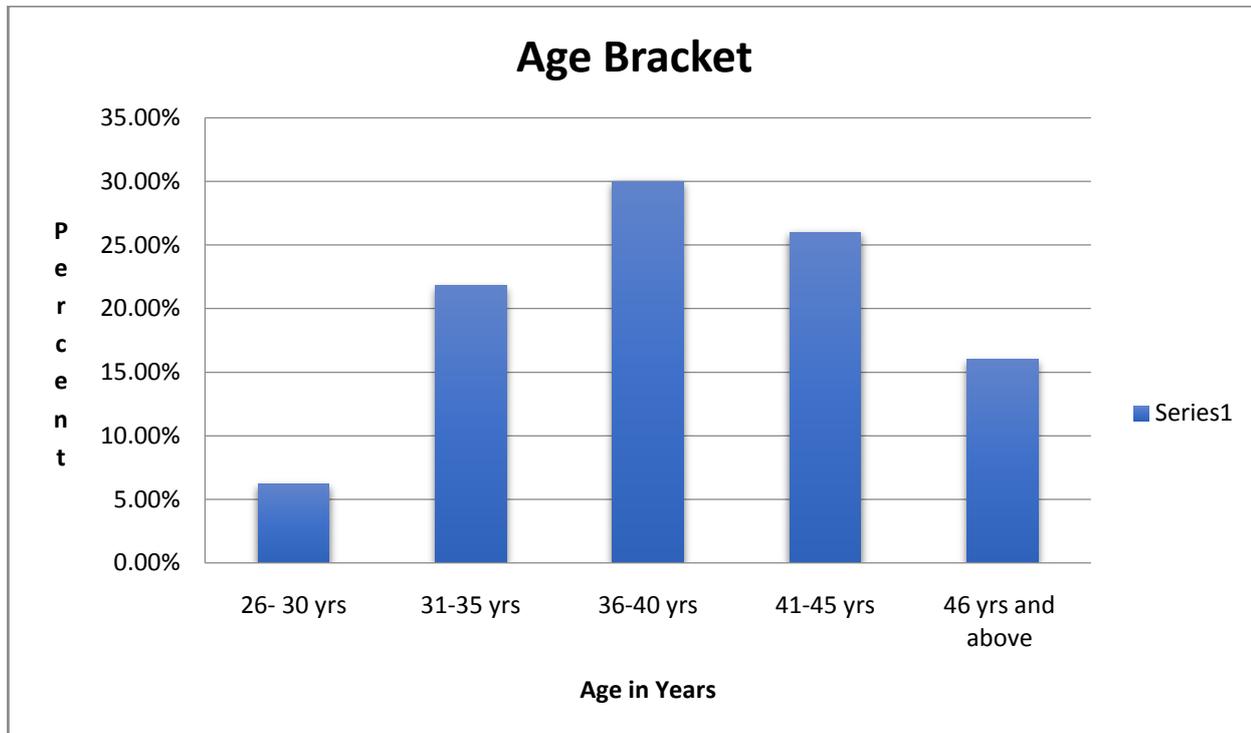


Figure 3: Age Distribution

Source: Research Data (2017)

From Figure 4.3 above, the average age of most of the respondents as at the time of study lay between 36-40 years representing 30% of the respondents, those in the age bracket of 41-45 years (26%); 31-35 years were 21.85%, in the bracket of 46 years and above were 16%; lastly the least were 26-30 years representing 6.2% of the respondents. The age brackets showed that majority of the managers are mature adults with enough experience in their areas of expertise.

Working Experience

The study sought to determine the period of time that the respondents had worked in their banks. The statistics is shown in Figure 4



Figure 4: Working Experience

Source: Research Data (2017)

From the data collected, it is established most employees have worked in their respective banks for more than three years which is average years for a competent employee as shown in Figure 4 above. The results showed that majority (37.1%) have worked for 3-5 years; 20% have worked for 6-8 years; 16.5% and 15.5% have worked for 9-11 years and 12 years respectively while the remaining 11.9% have worked in their respective banks for 1-2 years only.

Braxton (2008) underscored that respondents with a high working knowledge help with giving solid data on the issue close by since they have specialized involvement on the issue being analyzed by the study. Therefore, as illustrated in Figure 4.4 above, more than 90% had worked in their various banks for more than three years hence understood technical issues relating to innovation capability and implications on organizational performance in their institutions.

Level of Education

Educational background of the respondents was one of the other important demographic characteristic surveyed by the study. Figure 5 shows the distribution of the level of education or training attained by the respondents.

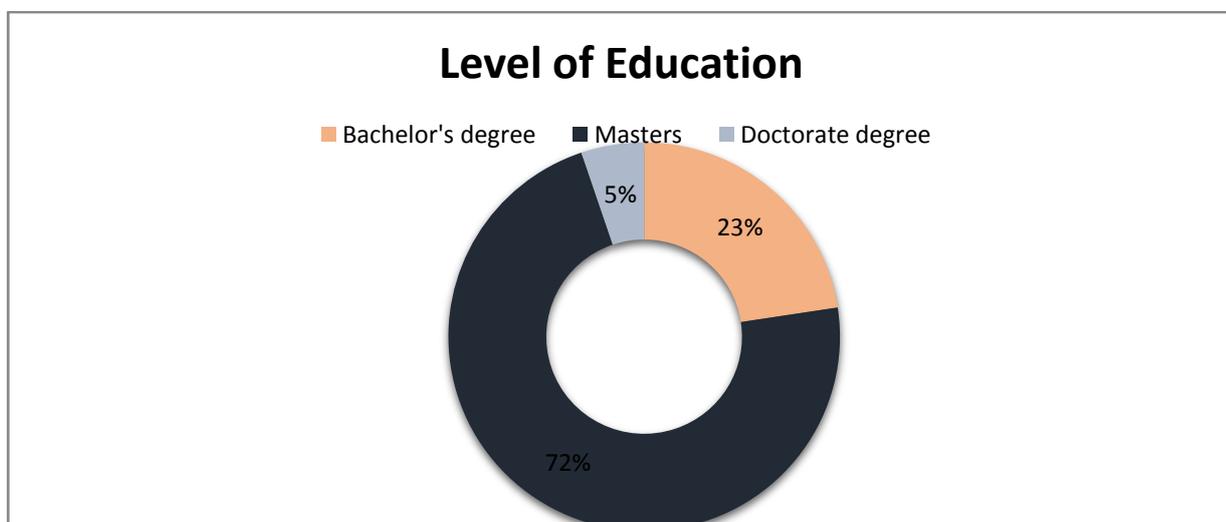


Figure 5: Education level of the Respondents

Source: Research Data (2017)

As illustrated in Figure 5 above, it was established that there was no respondent in the targeted population with only college certificate and/or diploma certificate at the time of the research. However, it was established that majority of employees (72%) had Master's degree; 23% had Bachelor's degree and 5% had Doctorate degree at the time of the study as shown in the pie chart above. Joppe (2008) accentuated that amid research, respondents with specialized knowledge on the study issue helps with social occasion solid and exact data on the issue under scrutiny. This demonstrated a large portion of these representatives were qualified experts with specialized knowledge and aptitudes on the study issue and accordingly gave the study dependable data.

Category Positions

The study had categorized the respondents into three groups based on the positions they hold within the organization. The results obtained are shown in Figure 6.

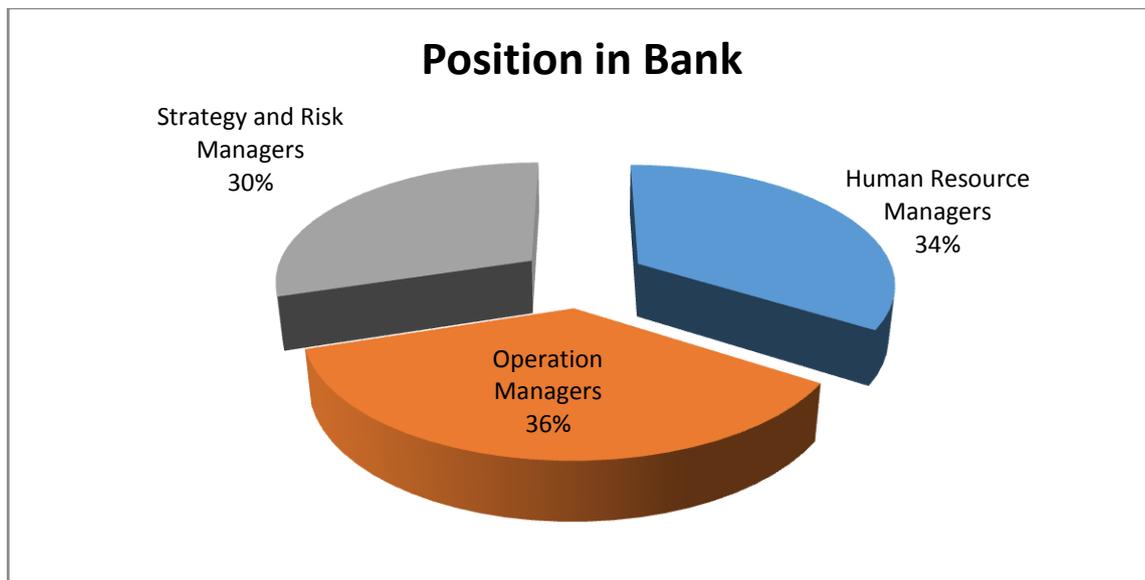


Figure 6: Respondents Category Positions

Source: Research Data (2017)

From Figure 6, the results indicate that the majority of the respondents who filled and returned the questionnaires were the operations managers representing 36%. This was followed by the Human Resource managers who were at 34% and finally the Strategy and Risk managers at 30%.

Descriptive Analysis

This section was necessary for the study for the purposes of establishing the specific indicators of innovation capability among Kenyan commercial banks. The study used a five-point Likert type scale to anchor the statements which were worded to seek the level of agreement by the respondents with the statements with proposed construct indicator items in the questionnaire. On the 5-point Likert scale 1 represented "strongly disagree" and 5 which was the maximum represented "strongly agree". The mean statistics range was interpreted as follows:

0 – 1.0	Very Low/Strongly Disagree
1 – 1.9	Disagree
2.0 – 2.9	Moderate/Neutral
3.0 – 3.9	Agree
4.0 – 5.0	Very High/Strongly Agree

The study used the mean scores to establish the average number of responses received from each item in the questionnaire and standard deviation which describes how much variation or diversity there is in dissemination. Standard deviation gives a sign of how far the individual responses to a question change from the mean; it clarifies if the respondents' responses are focused around the mean, or scattered far and wide (Kothari, 2008). On the off chance that the standard deviation and difference are each more than 1 it implies that the respondents had unique perspectives and on the off chance that they are each under 1, at that point this implies the respondents had comparable feelings on the issues concerned (Saunders, 2009).

A summary of descriptive statistics is presented in Table 1 while the discussion of results on specific indicators of variables follow in subsequent tables.

Table 1. Descriptive Statistics

	Mean	Std. Deviation	N
Performance	3.92	0.535	97
Structural capability	4.02	0.408	97
Operational capability	4.00	0.346	97
Staff capability	3.95	0.454	97

Analysis of Bank Performance

The study sought to determine the relationship between innovation capability and organizational performance of Kenyan commercial banks. The findings are shown in Table 2.

Table 2: Aspects of Bank Performance

Measures of bank performance	Mean (M)	Std. Deviation(SD)
1. Our bank has increased considerably its customer base in the last 5 years	3.814	.768
2. The bank has had improved performance due to innovative products and services in the last 5 years	4.134	.589
3. Our bank has diversified its products in the last 5 years.	3.866	.671
4. Our bank has increased its market share in Kenya in the last 5 years.	3.959	.840
5. The bank has had growth and expansion in its operations in the last 5 years.	3.804	.759
Overall Bank Performance	3.915	

Source: Research Data (2017)

The findings indicate that on the overall, the performance of majority of the commercial banks is good as shown by a mean of 3.915 and SD of 0.725. Within a period of five years, majority of these commercial banks have increased in: its customer base as shown by mean of 3.814, S. D=0.768; improved performance due to innovative products and services (Mean= 4.134, S. D=0.589); their market share (M= 3.959, S. D=0.840). The findings also indicate that these banks have diversified their products and have had growth and expansion in their operations in the last five years as indicated by mean of 3.866, S. D=.661 and Mean=3.804, S. D=0.759 respectively.

Structural Capability

The also aimed to determine the influence of structural capability on performance of Kenyan commercial banks. The findings are summarized in Table 3.

Table 3: Structural Capability

Aspects of Structural Capability	Mean (M)	Std. Deviation
1. There are bank's top management commitment and support for innovation and new idea generation	4.247	.541
2. Communication in the bank is effective and works top-down, bottom-up and across the organization	3.990	.729
3. Our structure helps us to take up decisions rapidly	3.845	.727
4. Our innovation strategy is clearly communicated so everyone knows the targets for improvement	4.041	.720
5. The bank supports organizational learning	3.876	.617
6. Our organization structure does not stifle innovation but helps it to happen	3.897	.729
7. Our bank commits significant resources to new product development and innovation so as to improve performance	4.165	.656
8. The bank encourages knowledge management, absorption and storage	4.093	.723
Overall average of structural capability	4.019	

Source: Research Data (2017)

On the basis of mean response scores, the respondents tended to agree to most of the items as shown in Table 4.3 above. The results indicate that there is bank's top management commitment and support for innovation and new idea generation (M=4.247, S. D=0.541); Communication in these banks is effective (M=3.990, S. D=0.729); their organizational structure helps us to take decisions rapidly (M=3.845, S. D=0.727).

They also agreed that innovation strategy is clearly communicated (M=4.041, S. D=0.720); that the bank supports organizational learning (M=3.876, S. D=0.617); that the bank commits significant resources to new product development and innovation so as to improve performance as well as encourages knowledge management, absorption and storage as shown by mean of 4.165, S. D=0.656 and M= 4.093, S. D=0.723 respectively. The past studies by Aragón-Correa et al. (2014) and Schroeder et al. (2012) agree with these discoveries as they demonstrated that aggregate knowledge

securing, knowledge sharing, and knowledge use emphatically influence performance of an organization.

Generally, the respondents agreed that there is a strong relationship between structural capability and performance of commercial banks in Kenya as indicated by an overall average mean of 4.019 and an average standard deviation of .680. According to the results of the study, idea generation, effective communication, enabling organizational structures and knowledge management are positively related to bank performance. These results are in accordance with the study by Jiménez-Jiménez and Sanz-Valle (2011) which demonstrated that organizational schedules, correspondence and viable organizational structures that assistance firms to direct their exercises all the more effectively acquire better performance. At the point when the structures and methods for working capacity well, representatives have sufficient energy to focus on finishing their assignments subsequently increment of their performance.

Operational Capability

The study further sought to establish the relationship between operational capability and performance of commercial banks in Kenya. The findings are summarized in Table 4.

Table 4: Operational Capability

Aspects of operational capability	Mean (M)	Std. Deviation
1. We work closely with our customers in exploring and developing new products and services in our bank	3.969	.714
2.The bank has invested in research and development	4.144	.722
3. The bank uses the latest technology in its operations	3.938	.592
4.We have mechanisms in place to ensure early involvement of all departments in developing new products/processes/services in our bank	3.928	.711
5.We have processes in place to review new technological or market developments and what they mean for our bank’s strategy	3.918	.582
6.Our bank offers a supportive climate for new ideas and creativity	4.021	.577
7. The bank’s atmosphere is supportive and diversity is encouraged	4.041	.628
Overall operational capability	3.994	

Source: Research Data (2017)

As shown in Table 4.4 above, the respondents agreed that operational capability do have a strong influence on organizational performance of the commercial banks as shown by the overall mean of 3.994, S. D= 0.647. The findings clearly indicate that the respondents strongly agreed the banks have invested in research and development (M=4.144, S. D=0.722); that bank offers a supportive climate for new ideas and creativity (M=4.021, S. D=0.577); that the bank’s atmosphere is supportive and diversity is encouraged (M=4.041, S. D=0.628); that they work closely with the customers in exploring and developing new products and services (M=3.969, S. D=0.714). Furthermore, the respondents agreed that he bank uses the latest technology in its operations (M=3.938, S. D=0.592); that there are mechanisms in place to ensure early involvement of all departments in developing new products/processes/services in the bank (M=3.928, S. D=0.711); and that they have processes in place to review new technological or market developments and what they mean for the bank’s strategy (M=3.918, S. D=0.582).

This study revealed that the commercial banks that strive to improve their performance invests in research and development, provides organizational climate that fosters innovation and creativity as well as provide an atmosphere that is supportive and diversity is encouraged. These results are in agreement with Dobni (2008) point of view who emphasized that for improved performance, an organization ought to have a successful atmosphere for innovation which endures workers who think contrastingly and inventively. Since representatives' aptitude and knowledge are expected to manufacture a company's innovation capability, it is essential to make a good culture for innovation, which requires that the workers are dealt with similarly, persuaded and feel they are individuals from the work group.

Staff Capability

The study also sought to establish the effects of staff capability on performance of commercial banks Kenya. Table 5 shows items reflecting on the aspects of staff capability and their effect on organizational performance of the banks provided in a Likert scale where the respondents were to indicate their level of agreements.

Table 5: Staff Capability

Aspects of staff capability	Mean (M)	Std. Deviation
2. Our organization encourage flexible adaptation of human resources to technological and competitive changes	4.010	.685
3. The bank is good at capturing what other employees have learned so that others in the organization can make use of it	3.794	.803
4.The bank has invested in capturing and nurturing the employees' creativity and knowledge storage	4.110	.653
5. The bank supports learning as well as training and development of its staff.	4.000	.764
6. Employees are encouraged to be creative and innovative in our bank	4.041	.676
7. The bank's reward and recognition system supports innovation	3.917	.687
8. The bank have empowered employees whereby they are involved in suggesting ideas for improvements in products or services	3.897	.684
Overall average of staff capability	3.953	

Source: Research Data (2017)

On the overall, the respondents highly agreed that personnel capability do influence organizational performance of commercial banks as shown by a mean of 3.953 and a standard deviation of 0.711. They agreed that the banks often conducts business environmental surveys hence is able to detect changes in the environment (M=3.856, S.D=0.736); the bank encourage flexible adaptation of human resources to technological and competitive changes (M=4.010, S.D=0.685); that the bank is good at capturing what other employees have learned so that others in the organization can make use of it (M=3.794, S.D=0.803); that the bank has invested in capturing and nurturing the employees' creativity and knowledge storage as well as that the bank supports learning as well as training and development of its staff (M=4.110, S.D=0.653) and (M=4.000, S.D=0.764) respectively. In addition, the respondents indicated that the commercial banks in Kenya reward and recognition system supports

innovation (M=3.917, S. D=0.687) and that the employees are empowered and involved in suggesting ideas for improvements in products or services (M=3.897, S. D=0.684).

The present study found that the aspects of personnel capability as a determinant of innovation capability that highly influenced bank performance include flexible adaptation of human resources to technological and competitive changes, capturing and nurturing the employees’ creativity, innovation and knowledge storage, organizational learning as well as reward and recognition system that supports innovation. These results correspond with the view of Momeni et al. (2015) who focuses that staff capability is needy upon the organization's ability for discovering openings, limit with respect to producing thoughts and limit with regards to singular knowledge which depend on the innovativeness and different capacities of HR.

Moreover, the discoveries of this study are in concurrence with the Study by Raffai (2014) who highlights that worker ability assumes a critical part in developing an association's innovation capability. It requires that for improved performance, firms have to be committed to capturing and nurturing of employee creativity, continuous learning and knowledge storage to create a facilitating culture to foster and sustain the firms’ innovation capability. This was also complemented by Tidd et al. (2011), who assert that to develop employee expertise in innovation, continuous and stretching individual development is crucial.

Relationship between Innovation Capability and Bank Performance

The study sought to establish the relationship between the innovation capability indicators and their effect on bank performance measures. The findings are illustrated in Table 6.

Table 1: Performance of Commercial Banks due to Innovation Capability

Performance of Commercial Banks	Frequency	Percent
The bank has had improved performance due to innovative products and services		
Strongly Agree	17	17.5
Agree	65	67.0
Neutral	15	15.5
Disagree	0	0
Strongly Disagree	0	0
Total	97	100.00
Our bank has diversified its products and enhanced its efficiency due to its structural capability		
Strongly Agree	21	21.6
Agree	59	60.8
Neutral	17	17.5
Disagree		
Strongly Disagree		
Total	97	100.00
Our banks has increased considerably in customer base after enhancing operational capability		
Strongly Agree	20	20.6
Agree	43	44.3
Neutral	35.1	
Disagree	0	0
Total	97	100.00

The personnel capability have enabled the bank to have growth and expansion in its operations

Strongly Agree	23	23.7
Agree	52	53.6
Neutral	22	22.7
Total	97	100.00

Source: Research Data (2017)

As illustrated in Table 4.6 above, there is a positive and strong relationship between innovation capability and performance of commercial banks. This is because majority of the respondents highly agreed that the performance of commercial banks is influenced by innovation capability. 67% of the respondents agreed that the bank has had improved performance due to innovative products and services; 17.5% strongly agreed to the same statement while 15.5% neither agreed nor disagreed. Regarding whether the banks have diversified their products and enhanced their efficiency due to its structural capability; majority comprising 60.8% agreed to this statement, 21.6% strongly agreed while the remaining 17.5% were indifferent.

The results also showed that majority of the respondents 44.3% strongly agreed that the bank has increased considerably in its customer base due to its operational capability, 20.6% agreed to this statement, while 35.1% neither agreed nor disagreed. In regard to the effect of personnel capability on the growth and expansion of operations in these banks; the findings indicate that majority (53.6%) of the respondents agreed, 23.7% strongly agreed and 22.7% were neutral.

On overall, the respondents showed that innovation capability very highly affected organizational performance of commercial banks in Kenya. These findings totally agree to the study by Rhee et al. (2010) who contemplated that development impacts performance. Jiménez-Jiménez and Sanz-Valle (2011) in like manner found a positive and vital effect of advancement on performance, covering the amount of developments, the proactive or open character of those advancements, and the assets the firm places assets into advancement. Cainelli et al. (2014) found that associations with an anomalous condition of advancement have more lifted measures of efficiency and budgetary improvement than firms with a low level of development. The examination by Camisón and Villar-López (2014) demonstrates that both hierarchical and mechanical innovation impact performance.

Inferential Statistics Analysis

For inferential statistics, correlation and regression analysis were used to indicate the extent to which each independent variable affects organizational performance in the bank under study.

Correlation Analysis

To analyze the relationships and the strength of the dependency between the factors of innovation capability and performance of commercial banks, the study correlated the innovation capability dimensions – structural capability, operational capability and staff capability (independent variables) and performance (the dependent variable); the results of the correlation analysis are presented in Table 7.

Table 7. Association between pairs of variables

Correlations coefficients

		PERF	STR_cap	OP_cap	STAFF_cap
Performance (PERF)	Pearson				
	Correlation	1			
Structural capability (STR_cap)	Pearson				
	Correlation	.412**	1		
Operational capability (OP_cap)	Pearson				
	Correlation	.252*	.473**	1	
Staff capability (STAFF_cap)	Pearson				
	Correlation	0.131	.396**	.605**	1
	Sig. (2-tailed)	0.202	<0.01	<0.001	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

n=97

The results obtained from the analysis of data (Table 7), indicate that structural capability had a positive and significant association with organizational performance. A strong correlation was obtained between structural capability and organizational performance ($r=0.412$, $p<0.001$). Similarly, operational capability had a strong positive association with organizational performance ($r=0.473$, $p<0.001$). However, the staff capability construct had a positive but insignificant correlation with performance ($r=0.131$, $p=0.202>0.05$). These findings imply that the more the banks develop their innovative capability along the three dimensions: structural, operation and staff capabilities the netter will be the performance. Specifically, operational capability has the strongest association with performance followed by structural capability and lastly staff innovative capability.

Further, since the overall staff innovative capability was found to be positively but not significantly associated with performance, correlational analysis of the descriptors of this capability with descriptors of performance was performed and the results are presented in Table 8.

Table 8. Association between staff capability descriptors and performance of commercial banks Kenya

		PERF	StafC_ 2	StafC_ 3	StafC_ 4	StafC_ 5	StafC_ 6	StafC_ 7	StafC_ 8
Performance (PERF)	Pearson								
	Correlation	1	-.237*	-.002	.289**	.255*	.021	.259*	.004
	Sig. (2-tailed)		.020	.983	.004	.012	.836	.011	.966
	N	97	97	97	97	97	97	97	97

While StafC-4, 5 and 7 respectively, “The bank has invested in capturing and nurturing the employees’ creativity and knowledge storage (StafC_4)”, “The bank supports learning as well as training and development of its staff. (StafC_5)”, and “Employees are encouraged to be creative and innovative in our bank (StafC_7)” are positively and significantly correlated with performance (StafC-4: $r=0.289$, $p<0.05$; StafC_5: $r=0.255$, $p<0.05$; StafC_7: $r=0.259$, $p<0.05$). StafC_2 is negatively correlated with performance. The negative correlation between StafC-2 “Our organization encourage flexible adaptation of human resources to technological and competitive changes (StafC_2)” and performance ($r=-0.237$, $p>0.05$) is surprising because it would be expected that innovative capability among staff would positively influence or at least be positively associated with performance. This result needs further empirical investigations.

On the other hand, “The bank is good at capturing what other employees have learned so that others in the organization can make use of it (StafC_3)”, “Employees are encouraged to be creative and innovative in our bank (StafC_6)”, and “The bank have empowered employees whereby they are involved in suggesting ideas for improvements in products or services (StafC_8)” had no significant correlation with performance. Correlation results for individual item measures of staff capability and performance are presented in Table 9.

Table 9. Correlation between staff capability and performance individual descriptors

		perf_1	perf_2	perf_3	perf_4	perf_5
StafC_2	Pearson Correlation	-0.115	-0.133	-0.156	-.325**	-0.116
	Sig. (2-tailed)	0.261	0.195	0.128	0.001	0.256
StafC_3	Pearson Correlation	-0.147	-0.051	0.064	0.034	0.087
	Sig. (2-tailed)	0.15	0.619	0.532	0.744	0.397
StafC_4	Pearson Correlation	.274**	0.078	0.169	.304**	0.193
	Sig. (2-tailed)	0.007	0.45	0.097	0.002	0.058
StafC_5	Pearson Correlation	0.142	.232*	.345**	0.032	.234*
	Sig. (2-tailed)	0.165	0.022	0.001	0.752	0.021
StafC_6	Pearson Correlation	-0.085	-0.066	.242*	0.04	-0.045
	Sig. (2-tailed)	0.405	0.518	0.017	0.699	0.661
StafC_7	Pearson Correlation	0.168	0.131	.382**	0.048	.248*
	Sig. (2-tailed)	0.1	0.202	<0,001	0.64	0.014
StafC_8	Pearson Correlation	0.062	0.035	0.038	-0.062	-0.039
	Sig. (2-tailed)	0.544	0.736	0.714	0.548	0.702
	N	97	97	97	97	97

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The results in Table 9 indicated that staff innovative capability (StafC_5, 6, and 7) is mostly associated with perf_3 “Our bank has diversified its products in the last 5 years (perf_3). These results imply that in implementing the staff innovative capability the order the banks may start with StafC_5, followed by StafC_7, then StafC_4 and lastly StafC_6 since this is the order in which these aspects of staff innovative capability are positively and significantly correlated with performance (from the strongest to the less strong). Perf_5 “The bank has had growth and expansion in its operations in the last 5 years (perf_5)” is also strongly correlated with StafC_5 and StafC_7,

namely, “The bank supports learning as well as training and development of its staff. (StafC_5)” and “Employees are encouraged to be creative and innovative in our bank (StafC_7)”

Conclusion and recommendations

Innovation capability is positively and significantly associated with performance among commercial banks in Kenya. The strongest positive association is between operational capability and performance, followed by structural capability and lastly staff capability. The relationship between staff capability and performance were positive but not significant however individual item measures of staff capability had a positive correlation with performance. These findings are a first step in examining the relationship between innovation capability and performance on a Kenyan sample and similar studies are recommended with more refined data collection instruments since one of the construct (operational capability) had a slightly low Cronbach alpha value. The findings can be used as a road map for developing innovation capability along the three dimensions (structural, operational and staff innovation capability)

References

- Acur, N., Kandemir, D., Weerd-Nederhof, P., and Song, M. (2010). Exploring the impact of technological competence development on speed and NPD program performance. *Journal of Production Innovation of Management*, 27 (6), 153-210
- Camisón, C. and Villar-López, A. (2014). Organizational innovation as an enabler of technological innovation capabilities and firm performance. *Journal of Business Research*, 67 (1), 2891-2902.
- Colarelli O'Connor, G., and DeMartino, R. (2010). Organizing for Radical Innovation: An Exploratory Study of the Structural Aspects of Management Systems in Large Firms. *Journal of Product Innovation Management*, 23, 475–97.
- Dobni, C.B. (2008). Measuring innovation culture in organizations: the development of a generalized innovation culture construct using exploratory factor analysis. *European Journal of Innovation Management*, 11 (4), 539-59.
- Ghuri, P. and Grønhaug, K. (2010). *Research methods in business studies, 4th edition*, Pearson Education Limited.
- Gunday, G., Ulusoy, G., Kilic, K. and Alpkan, L. (2011). Effects of innovation types on firm performance. *International Journal of Production Economics*, 133 (2), 662-676.
- Hashi, I. and Stojcic, N. (2013). The impact of innovation activities on firm performance using a multi-stage model: Evidence from the Community Innovation Survey 4. *Research Policy*, 42 (2), 353-366.

- Ho, Y.C., Fang, H.C. and Lin, J.F. (2011). Technological and design capabilities: is ambidexterity possible? *Management Decision*, 49 (2).
- Hogan, S.J., Soutar, G.N., McColl-Kennedy, J.R. and Sweeney, J.C. (2011). Re-conceptualizing professional service firm innovation capability: Scale development. *Industrial Marketing Management*, 40 (8), 1264-1273.
- Jiménez-Jiménez, D. and Sanz-Valle, R. (2011). Innovation, organizational learning and performance. *Journal of Business Research*, 64 (4), 408-417.
- Kodam, Mitsuru, Shibata and Tomoatsu. (2014). Strategy transformation through strategic Innovation capability: a case study of Fanuc. *RandD Management Journal*, 44 (1), 75-103.
- Liao, J., Kickul, J.R. and Ma, H. (2009). Organizational Dynamic Capability and Innovation: An Empirical Examination of Internet Firms. *Journal of Small Business Management*, 47 (3), 263-286.
- Lichtenthaler, Ulrich, and Ernst, H. (2012). The performance implications of dynamic capabilities: The case of product innovation. *Journal of Product Innovation Management*.
- Lichtenthaler, U and Lichtenthaler, E. (2009). A Capability Based Framework for Open Innovation: Complementing Absorptive Capacity. *Journal of Management Studies*, 46, 1315- 1338.
- Lichtenthaler, Ulrich, and Muethel, Miriam. (2012). The Impact of Family Involvement on Dynamic Innovation Capabilities: Evidence from German Manufacturing Firms. *Journal of Entrepreneurship Theory and Practice, Baylor University*, 51, 1235-1253.
- Lin, L.H. (2012). Process and product innovation in virtual organizations: An investigation of Taiwanese information firms. *Total Quality Management and Business Excellence*, 20, 1287-1301.
- Momeni, M., Nielsen, S. B., and Kafash, M. H. (2015). *Determination of Innovation Capability of Organizations: Qualitative Meta-Synthesis and Delphi Method*. In Proceedings of RESER2015 - Innovative Services in the 21st Century.
- Penrose, E.T. (1959). *The Theory of the Growth of the Firm*, New York, NY: John Wiley.
- Peng, D.X., Schroeder, R.G. and Shah, R. (2008). Linking routines to operations capabilities: A new perspective. *Journal of Operations Management*, 26 (6), 730-748.
- Perez-Freije, J. and Enkel, E. (2007). Creative Tension in the Innovation Process: How to Support the Right Capabilities. *European Management Journal*, 25 (1), 11-24.
- Raffai, C. (2014). *Investigating the Innovation Capability Maturity of Rural Accommodation Service Providers*. University of Pannonia, PhD Dissertation. 8-28.

- Rhee, J., Park, T. and Lee, D.H. (2010). Drivers of innovativeness and performance for innovative SMEs in South Korea: Mediation of learning orientation. *Technovation*, 30 (1), 65-75.
- Saunila, Minna, Ukko, Juhani, Rantanen, and Hannu. (2014). Does Innovation Capability Really Matter for the Profitability of SMEs? *Knowledge and Process Management*, 21, (2), 134 –142.
- Saunila, M and Ukko, J. (2013). Facilitating innovation capability through performance measurement: A study of Finnish SMEs. *Management Research Review*, 36 (10), 991–1010.
- Skiltere, D. and Jesilevska, S. (2013), Building the System of Innovation Capability Indicators: Case of Latvia. *Eurasian Journal of Business and Economics*, 6 (12), 113-128.
- Sok, P., O’Cass, A. and Sok, K. (2013). Achieving superior S E performance: the Overarching role of marketing, innovation, and learning capabilities. *Australasian Marketing Journal*, 21 (3), 161-167.
- Tello-Gamarra, Zawislak, J. and Antônio, P. (2013), Transactional capability: Innovation’s missing link. *Journal of Economics, Finance and Administrative Science*, 18(34), 211-238.
- Tidd, J., Bessant, J. and Pavitt, K. (2005). *Managing Innovation, Integrating Technological, Market and Organizational Change, 3rd edition*. John Wiley and Sons, New York.
- Yung, S.I. and Ming-Hong Lai. (2012). Dynamic capabilities in new product development: the case of Asus in motherboard production. *Total Quality Management and Business Excellence*, 21, (2), 184 –242.
- Zawislak, Alves, A., Tello-Gamarra, J., Barbieux, D., and Reichert, F. (2012). Innovation Capability: From Technology Development to Transaction Capability. *Journal of Technology Management and Innovation*, 7 (2), 342-376.
- Zawislak, P.A.; Alves, A.C.; Gamarra, J.T.; Barbieux, D. and Reichert, F.M. (2013). Influences of the Internal Capabilities of Firms on their Innovation Performance: A Case Study Investigation in Brazil. *International Journal of Management*, 30 (2), 329-348.