# EFFECTS OF STRATEGIC INNOVATION ON PERFORMANCE OF COMMERCIAL BANKS IN KENYA

**(A Survey of Tier I Commercial Banks in Nairobi County)**

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**A RESEARCH THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF THE AWARD OF MASTERS OF BUSINESS ADMINISTRATION OF THE KENYA METHODIST UNIVERSITY**

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## DECLARATION

This research thesis is my original work and has not been presented for a degree or any other award in any other University.

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**Declaration by the Supervisor(s)**

The research project has been submitted for examination with our approval as the Kenya Methodist University Supervisors

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## DEDICATION

This thesis is dedicated to my family who were source of inspiration towards my education and my friends. I appreciate their spiritual and material support that they accorded me as I worked on this thesis project. Thank you and May the Almighty God bless you all.

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## ABSTRACT

Banking industry in Kenya experience a very stiff completion which sees banks outdoing each other in terms of end products, employee's retention, their service delivery among other products. When it comes to new technologies like mobile banking, online banking, and mobile application use, Kenya's top-tier commercial banks have been the pioneers. There is still a scarcity of academic research into how strategic innovation affects the performance of Kenya's tier-one commercial banks. Against this backdrop, the present study on how tier one commercial banks in Kenya are affected by strategic innovation market innovation strategies; and product innovation examine the effect of innovation strategies process. Kenya's tier one commercial banks performance; on innovation strategies assess technology innovation strategies effects on theory performance. This research adopted descriptive survey research design. The intended audience included 494 junior, middle, and senior managers from the 8 largest commercial banks in the country. The sample size of 221 was obtained by a stratified random sampling procedure. Primary data was gathered by administering questionnaires to top-level managers at Nairobi's commercial banks. But for the years 2014-2019, secondary information was gathered from sources including financial reports and scholarly journals. Statistics such as percentages, frequencies, means, and standard deviations were applied. Correlation analysis **and regression determined how the two variable relate with each other. Tables were used to for data presentation.** According to the study, when market innovation strategies were increased tier one banks performance recorded was a 0.190 when all the variables remained the same. The variable was significant since 0.000<0.05. Research also showed that, while controlling for other factors, a 0.32% improvement in performance was shown among Kenya's top commercial banks when product innovation tactics were boosted. As 0.000 is less than 0.05, this variable was statistically significant. In addition, the study found that the performance scores of Kenya's top commercial banks rose by 0.264 points for every unit of process innovation methods that was implemented. The procedure for developing innovative methods yielded statistically significant results (p0.00005). To sum up, it was clear that the performance score of Kenya's top commercial banks increased by 0.076 points when the unit score for their technology innovation initiatives was raised by one point. A p-value of 0.087 or lower indicates that this variable is not statistically significant. Product innovation initiatives were found to have the biggest impact on the performance of Kenya's top commercial banks. The next was process innovation strategies, market innovation strategies followed. Performance of tier one commercial banks was minimally affected by technology innovation strategies.

This study recommended that Central Bank which is the banks regulator to ensures tier one commercial banks strongly implement innovations for productivity, increase the number of their products, change and improve their products, create awareness and position all their brands. This will enhance growth, improve on investments and more revenue will be accumulated.

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background to the Study

The current market is quite difficult. Since this is the case, businesses now have to be more proactive and creative in order to find the competitive strategies that will ensure their continued success. Competition, technological progress, and shifting consumer demands are all spurred on by new ideas in business. According to Achilla and Kemp (2018), businesses need to ensure their strategies are mirrored in their organizational framework, that strategic leadership is fostered, that a company culture is established, and that strategy implementation is closely monitored. Competition among commercial banks for retail customers has led to significant market volatility, which the banking sector must account for. By realizing new approaches to resolving consumer issues, new products are born. In any country, commercial banks are crucial to the success of the economy.

Globally, for example in Asian Nation like in china, strategic innovation builds up finances of financial banks. Strategic innovation uses a four equation model, in connecting firm's innovation decision by use of new ideas leaving out unproductive ones relying only on what is beneficial. This study results reveals that the size and the new ideas in the firm had a positive relationship. In Canada, strategic innovation are useful strategies used by commercial banks in widening their market, to increase their revenues thus being in a better position than their rivals. In Europe and Asia, major banks such as Barclays, Standard Chartered, and Mitsubishi UFG Group have resorted to strategic innovation to gain a competitive advantage over local competitors (Carneiro, et al.,2017) Although all banks operate in different economic environments, it is evident that effective strategic innovation determine their level of performance, and this can be seen in the growth of tier one banks across the globe.

In Africa, innovativeness in the commercial bank sector has created new business avenues and also made other players to join the sector because of these new developed ideas in this financial sector. These ideas have created a wide range on bank products attracting a bigger number of services offered and their sources of revenues. In South Africa commercial banks improved their services and products through technology. This has made the banks be more competitive because some of the services that have been developed for example, mobile banking attracts more clients from all over be it in towns or even in villages their clients can access the products and services offered.

Banks can also create awareness to their clients and form a wide market through online marketing, this service is cheap ad fast since few employees are involved and it reaches the desired people within a very short time thus saving cost for the banks. Banks these days have gone paperless and most of their services to their clients have been compressed, so their clients do not have to waste time waiting. All these services developed have improved the financial performance os banking institutions and more so to developed countries , more gains have been experienced, customers are more and this have increased profits to the banks and as enable the banking sector even come up with more products and services that are helpful to their clients Technology have held the banking industries in developed countries in a bigger way, more people have been able to invest greatly in the industries, more clients realized , this has been realized also because commercial banks in their recruitment processes have employed staff who are knowledgeable, and understand these new technology trends, and have the revelant skills to come up with new ideas to be able to bring out change in n all their services (Carneiro, et al.,2017).

Uganda's commercial banks provide a full spectrum of corporate financial services tailored to the demands of the country's private sector. Innovation has been being a crucial factor for commercial banks in Uganda. In Ghana technology has made banks serve their clients in a better manner, faster and reliable services which increase their productivity. This is because when customers are treated well they will continue using their services more thus enable the banks increase their profits and also be more preferred than their competitors. Electronically banks have been very effective and reliable in the world and in the country at large and this has really changes the banking sector.

Locally, the unhealthy competition in Kenya in the banking industry have resulted to some commercial banks being closed and stability of performance of Kenya's banks has been impacted by competition from other financial institutions, particularly the preference of many Kenyans for the services of internationally recognized banks like Standard Chartered and Barclays. The banking industry should invent new ideas in their services and improve their products to be able to thrive in order to remain strong in this ruthless competition, tight regulation and increased international surveillance (Jayawardhena & Foley 2016). These days, Kenyan Banking industry is changing at a high rampant speed and an industry that is growing very fast (Ngari & Muiruri, 2014). Competition is very hyper where so many technologies are coming up, complex international and learned clients and a compressed market areas being the main problems.

**Concept of Strategic Innovation**

There is increased rivalry by companies globally since they have gained the knowhow on how new ideas affect their markets. Companies are changing their products and services very rapidly because of technology and competition globally. These new ideas make the sector be more competitive making their manufacturing processes in their strategies adopt what is more vital to their customers to be able to attract more in the market and achieve a more competitive advantage. He innovates ideas are more influential in the sectors action planning since it builds good reputation to their desired clients thus increase their gains. (Bwaley, 2013). According to Anderson (2016) innovating new ideas in the business, introducing brand new ways of production, introducing, looking for new markets and diverting to new business organization ideas are some of the means companies become productive.

Product innovation is creation of brand new products or services, updating /changing value of products or services to the desired look to bring more gains to the users (Narver & Slater, 2018). This process of inventing and creating new products and services increase production and also on how the services and products reach the intended customers. For this to be achieved new items, technology and machines have to be utilized. (Menon & Varadarajan, 2017). Fagerberg et al. (2014) product innovation is useful, increase revenue and in most cases reduce production cost of a firm.

A marketing innovation is use of new strategies or ideas that have not been used before that are different from what has been used before to enable a company exploit new markets (Li & Atuagene-Gima, 2016). Inventing new markets is done to ensure customers' needs are looked into to the better and this automatically increases profits (Kotler, 2016).

Ultimately, organizational innovation means an organization introducing new ideas in its operations in business, at the places of work and even to its stakeholders and outside markets. This makes satisfaction amongst their employees, increase productivity, increase revenues and reduces costs in its daily operations (Kim & Maugborgne, 2015).

**Banking Industry in Kenya**

All local banks must comply with the requirements set forth in the Companies Act, the Banking Act, and the CBK Ac. A bank in Kenya is a financial entity that carries on banking activities, as defined by the Banking Act (2004). These three commercial banks are the largest in Kenya and have main offices in Nairobi, as well as numerous regional and international outposts. Most likely, they are small and medium-sized businesses owned by locals. However, huge banks dominate the market, and the majority of these banks are owned by foreign investors. In 1920, Kenya saw the birth of the country's first commercial banks. Ten commercial banks existed in Kenya prior to independence, with the three largest being National and Grind Lays Bank, Barclays Bank, and Standard Bank (Central Bank of Kenya [CBK], 2018).

The Central Banks of Kenya which is part of the treasury prepares plans and ideas to be followed in decision making and gives action guidance on how monetary issues are done in the banking industries in Kenya. The CBK requires all commercials banks surrender their audited reports annually giving their financial risk, foreign exchange risk and gains with transparent reports in all their monetary transactions. This is done yearly on or before 31$^{st}$ March. The Kenyan banking industry saw a 15.9% increase in total assets in 2013, bringing the total to 2.33 trillion shillings (CBK, 2018).

Central Bank reports in Kenya shows that there are 42 licensed commercial banks in Kenya out of which 3 has the biggest shares in the government and are State Corporation while the rest are owned by private institutions. The same reports that twenty-five of these banks are local while the remaining thirteen are owned by foreign institutions. In the recent past CBK reports shows that there has been a lot of financial improvement in financial performance of banks from 2016, this has been attributed to the rules and regulations put in place by the Central bank in regulating banks activities and their effort to ensure no banks close its doors. (CBK, 2018).

**Organizational Performance**

Organizational performance mean gains a firm get from its business processes (Machuki & Aosa, 2011). Nader (2015) institutions performance involves product financial returns, its market share gains and gains from external environment. Machuki and Aosa (2011) assert that how an organization id doing in the market gives a frame work in its efficiency in its processes.

A number of scholars, (Jacobson, 1988; Machuki and Aosa, 2011; Richard et al, 2009; Waring, 1996) depicts that its ambiguous and challenging in giving clear results or how organizations are performing and it cannot be got from only one operations, different factors and operations have to be considered assist in achieving conclusive results. Balance scorecards have been pushed by Thompson (2015) as the ultimate performance indicator for businesses. With the balance score card, individuals can see just how well your business is doing in terms of finances, customers, new products, and internal processes. Only the BSC's exclusive focus on individual companies prevents it from being used for comparing different businesses. In spite of this, Richard et al. (2009) notes that performance metrics shouldn't be tailored to a particular study issue, but rather should be broad enough to encompass all aspects of an organization's productivity.

Organizational performance was measured in this analysis along three dimensions: production, market, and financial results. Other studies (Bagozzi, & Yi, 2018; Gun day et al., 2010; Narver & Slater, 1990) agree that the aforementioned dimensions provide a complete picture of an organization's efficiency. Market performance preserves the customer-driven market concept, the key to unlocking exceptional marketing competence and financial success, whereas production performance refers to the sum of a company's achievements in areas like cost effectiveness, quality, adaptability, and speed. Considerations like market share and sales expansion are a part of this framework.

**Tier One Commercial Banks in Kenya**

Kenya has eight (8) top-tier commercial banks: Stanbic Bank, Cooperative Bank, Barclays Bank of Kenya, Kenya Commercial Bank, Standard Chartered Bank (K) Ltd, Diamond Trust Bank, Equity Bank, and Africa's Commercial Bank. The banking industry in Kenya is dominated by these institutions, which have close to 50% of the market share. The Central Bank of Kenya classifies banks into three tiers based on their weighted index: Tier 1 institutions have an index of 5% or higher, Tier 2 institutions have an index of 1% to 5%, and Tier 3 institutions have a weighted average of 0% or less.

## 1.2 Statement of the Problem

Kenya's commercial banks have adopted new business practices that not only give value to consumers but also pay them more to conduct business with them in order to improve performance in the current competitive landscape. Innovating strategically is done for both survival and sustenance (Ferreira, et al. 2017). As per the CBK report, commercial banks' operating costs have decreased as a result of the implementation of innovative strategies, as there are now fewer physical branches in every county. Additional statistics showed that, from Kshs. 2,49 trillion in 2015 to Kshs. 2,61 trillion in 2016, innovation tactics only resulted in a 4.80% rise in consumer deposits. Additionally, the number of banking transactions carried out by bank employees and through mobile technology climbed by 30.9 percent among MFIs, going from 79,620,211 transactions in 2011 to 104,193,459 in 2015. (CBK, 2016). These figures highlight how crucial innovative methods are to improving the efficiency of Kenyan commercial banks. While this may be the case, studies demonstrate that these strategic breakthroughs have not been without their share of societal problems. A rise in cybercrime is one consequence of technical progress within the banking industry; this has resulted in criminals gaining access to customers' bank accounts and the banks' internal workings via custom-made computer programs and apps. The banking sector loses money because clients are wary of investing with them, and because it can be costly to restore banks' good reputations through initiatives like advertising and the introduction of new services. Performance of Kenya's top commercial banks was linked to market, product, technological process, and technology innovation strategies in this research.

While some prior research has examined the effects of financial innovations on bank performance, such as that of Muthinja and Chipeta, 2018), and Muia (2018), the findings have been contradictory. In their research, Chien et al. (2021) found that financial innovations had the smallest effect on bank performance, while Ngari and Muiruri (2014) found that they made a sizable contribution to bank success. Therefore, the purpose of this research is to analyze the impact of strategic innovation on the efficiency of Kenya's top commercial banks.

## 1.3 Objectives of the Study

### General Objective of the Study

The study generally sought to establish the effects of strategic innovation on tier one commercial banks in Kenya.

### The Specific Objective

i. To establish the effect of market innovation strategies on the performance of tier one commercial banks in Kenya.

ii. To determine the effect of product innovation strategies on the performance of tier one commercial banks in Kenya.

iii. To examine the effect of technological process innovation strategies on the performance of tier one commercial banks in Kenya.

iv. To assess the effect of technology innovation strategies on the performance of tier one commercial banks in Kenya.

## 1.4 Research Hypotheses

The underlying hypotheses were tested as part of the study:

i. Market innovation strategies do not significantly influence tier one commercial banks in Kenya.

ii. Product innovation strategies in Kenya do not significantly influence the tier one commercial banks performance.

iii. Technological process innovation strategies do not influence tier one commercial banks performance in Kenya.

iv. Technology innovation strategies do not significantly influence the performance of tier one commercial banks in Kenya.

## 1.5 Justifications of the Study

There was a need to conduct this study since the tier one commercial banks are the main banks in the economy and thus conducting this study provided understanding on the effect of strategic innovation on the performance of tier one Commercial Banks in Kenya. This study added on to the growing body knowledge of strategy and especially the strategic innovation and findings were of significance as described below:

### Banking Sector

The study may help tier one Commercial Banks in Kenya management in understanding how strategic innovation have been implemented in the Bank and the outcomes that have resulted. The results outlined in The managers of Kenya's top-tier commercial banks will benefit from this research in Strategy formulation and incorporation of innovation practices in the Bank. The study can also help the leadership of the Bank assess the organization readiness to increase the adoption of innovation and increase customer involvement as they pursue their roles.

### Kenya Government

The rate and direction of economic growth in developing nations like Kenya is shaped in part by the depth of their financial markets. Kenya is committed to achieving its Vision 2030 goals, which includes expanding access to credit and bolstering financial stability in banking services and products. Strategic innovation will propel Kenya as a nation towards achieving vision 2030 economic stability.

**Policy Makers**

The study's conclusions will be very helpful in informing decision-makers on how policies touching on strategic innovation may influence the performance of tier one commercial banks in Kenya. Since the research related to a local organization, decision-makers will be in the position to to relate theoretical class work to realistic strategic choice and implementation on an organization in a local set up.

**Scholars**

This research is helpful for scholars of strategic innovation since it can be used as a template for future research into the topic in Kenya.

## 1.6 Limitations of the Study

Unfortunately, this investigation had a number of flaws. Certain workplaces exhibited a high level of skepticism and unwillingness to cooperate with the researcher, resulting in a lack of useful data. A research permission from the government body (NACOST) and a statement from the University indicating that the research was undertaken for academic purposes alone helped to calm their concerns and speed up the study. Due to Kenyan government measures intended to prevent a pandemic of Covid-19, the study had to be carried out under strict conditions. The researcher maintained an impersonal, businesslike distance from the individuals in accordance with Ministry of Health regulations.

## 1.7 Scope and Delimitation of the Study

The purpose of this research was to examine the effects of strategic innovation on the bottom lines of Kenya's commercial banks. The main topics centered on how innovative banking concepts, products, and technology affect the success of the top commercial banks. The study was limited to tier one commercial banks in Nairobi County since this was where the headquarters of the banks are. Data targeted the top, middle level and lower management because they had more knowledge on the trends of performance of their banks. The study took a period of six months.

### 1.8 Operational Definitions

Definitions of key concepts utilized throughout the research are provided here:

**Commercial Banks:** The public places its money in these institutions so that they can make withdrawals, make deposits, and take out loans. The evidence for this is presented by Mitchell (2017).

**Market Innovation:** When a business spots a gap in the market, it responds by enhancing existing products or launching innovative new lines of business. Job performance is evaluated in terms of how well it meets established criteria for speed, cost, thoroughness, and accuracy (Collis & Hussey, 2017).

**Process Innovation:** improving the existing or introducing new delivery methods inoder to increase productivity (Langfred & Moye 2014).

**Product Innovation**: Introducing new products in the market to ensure satisfactorily customers wants are fully catered for. (Bagozzi & Yi 2018).

**Strategic Innovation:** Defined as the methods of using new action plans; a new product, production procedures; a new market new supply tactics. (Achilla & Kemp, 2018).

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

With the knowledge gap in mind, this section examines the theoretical and empirical literature. Investigation that has been done in the past that is relevant to this study's goals can be found in the empirical literature, whereas theoretical literature focuses on the underlying ideas and models.

## 2.2 Theoretical Review

The theories presented provide an analysis of the effects of strategic innovation on the profitability of commercial banks. The Schumpeter Theory of Innovation, the Technology Acceptance Model, and Porter's Five Forces Model are three of the most prominent of these theories, and they all bear directly on the factors under investigation here.

### Porter's 5 Forces Model

Porter (1991) proved that, making the strategies work involves creating a relationship between the company and its surroundings. The way an industry is formed dictates how its action plans will be implemented. An industry rivalry in the market depends on, new entries in the market, and what hinders new entry, supplier's strength, customers buying strength and efforts to impose prices, new products entering the market and lastly competition. Leaders and those willing to do business with a certain firm should ensure they are knowledgeable on how its management structures are since it will be very beneficial while transacting their business activities (Tidd et al., 2015).

Porter 's 5 Forces Model defines the relationship between market and product innovation. Recent studies show that upcoming SACCO(s) and Microfinance Institutions (MFIS) coming up put the banking sector at a risk. Most of the services and products offered by SACCOS and MFI are very pleasing to their clients and this is making customers divert from banks in case of loans and other products. The evolvement and development of Saccos and MFIs had made banks to tirelessly come up with new ideas in improving their products and services and also improve their market share in order to remain relevant. The theory is very vital for tier one commercial banks in Kenya to be able to perform and survive in this generation

**Diffusion of Innovation Theory**

This Theory was created by Rogers in (1962). It is one of the earliest theories used in social science. The theory gives an overview on how products and ideas reach people in a society. This lead to upholding these actions and new ideas as part of their behavior and in this case as their products for use and services to carry on with. This theory shows how new inventions and ideas through technology reach people in a social system and become part of their living standards.

Sociologists, psychologists, and anthropologists have widely studied this theory which was developed by Sundeep (2015). Oluoch (2013) in his definition defines innovation diffusion as way new ideas reach a society through different communication medium. If people don't think an idea, product, or behavior is novel, they won't be motivated to adopt it. According to Diffusion theory human beings have different characteristics and this creates the difference on how each and every individual accepts or fails to adopt new ideas. (Sundeep, 2015). Some of news ideas adopted in some case make individuals adopt them or reject them. This theory defines different procedure on how an innovation can be adopted.

Bryman and Bell (2011), first and for most, an individual has to have an idea of what is being adopted, second an individual need to be given the knowledge of the new idea and this makes a person give it an ear of wanting to know more, in the third stage, an individual try to understand it weighing its strength and weaknesses and makes up his/her mind to uphold it and make use of it. The final stage is where an individual put the adopted action into work action. According to Thompson (2015), when the adopted plans yields fruits, an individual make a final decision to continue working with it and when the idea fails it is dropped. This study was studied in order to find out how performance is affected by innovation in tier one commercial banks in Kenya, therefore this theory assisted this study since it gave an explanation on how invented ideas are adopted and put to work successfully by all people in an organization despite their different characteristics and different skills.

**Technology Acceptance Model**

There has been a lot of research done on the topic of how new ideas are introduced in institutions, how they are received, and how they end up being implemented through the use of technology, although the theories and models used vary. The Technology Acceptance Model (TAM) is a framework advocated by Davis (2017) that looks at how people react to new technologies. This approach establishes a connection between an individual's habits and the way they employ digital tools. It is considered that a person's behavior and his or her assumptions about technology demonstrate the significance of technology and facilitate the ease with which it is adopted and used.

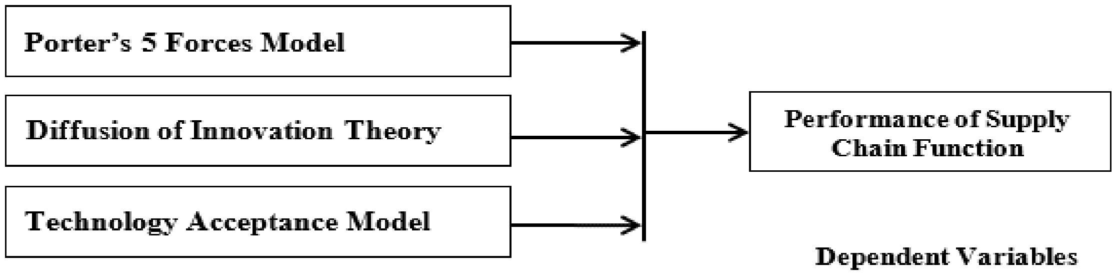
To get the most out of the TAM model, the user must be familiar with all of its components. Pedersen et al. (2015). Using this model, you can predict how people will behave in relation to your concept, service, or product based on how important it is to them and how basic its features are. (ibid.). Davis (2017) suggests that before introducing new technology, it is important to think about how users would react to it. The effectiveness of this paradigm is reduced because its creators focused solely on the technology's application and efficiency rather than considering how users would actually employ it. users will blindly adhere to instructions because they won't feel comfortable using it.

Internet banking is a topic that Wang et al. (2018) explored. The TAM posits that while deciding between different IT products, ease of use is one of the most crucial aspects. The way people act and feel about new forms of information technology, like as online banking, is not entirely explained by this. TAM is a valid theoretical model, and its features are designed with the end-user in mind, making it suitable for usage in online banking (Wang et al., 2018). TAM's relevance to online banking is demonstrated by its widespread adoption, which encourages more people to try it out. as reported by (Wang et al., 2018).

In the present study, Technology Acceptance Model underpins the technology innovation variable, whereby technology in the banking industry is very dynamic with upcoming technologies phasing out the conventional manual system. Mobile money transfer and internet banking are among the key technological innovations in the sector. However, the readiness and uptake of the same by the masses determine to a significant extent whether or not these banks capitalized on the same to enhance performance. This theory therefore sought to explain further the effect of technology innovation strategies on the performance of tier one commercial banks in Kenya. The foregoing theories can be conceptualized as presented in Figure 2.1.

**Figure 2. 1*:***

*Theoretical Framework*




*Source: Author (2022)*

## 2.3 Empirical Review

### Market Innovation

Market innovation is introduction of new ideas alongside existing ones for business growth and those that brings change in products, services and in wholesome all business activities. Market segmentation, creating different market shares of individuals according to the needs and wants, behaviors and priorities to ensure all their needs are catered for and are fully satisfied. Market segments should be designed in way no revenues losses are encountered and those that will earn the company profits. (Kimberly, 2016).

Market influencers should monitor the markets and ensure balanced market share which will enable customers' needs and wants are catered for, there is healthy competition, the markets are expanding and ensure the company is focusing on the proper direction. (Anderson, 2016).

Market innovation involves introducing new and improved marketing ways so that market stability is created. It is concerned with consistence market change and not product use change so that customer needs are satisfied. (Mitchell, 2017). Market innovation delivers information needed by the customers' inoder to make desirable decisions. It also helps customers avoid impulse buying and only gets what they want. (Narver & Slater, 2018). This implies that in a particular area customers' needs may be different from the other depending on their desires. So what they require is what delivered to them. In the markets, profit is gained when one product sells in different market shares at different prices. Market influencers look into these products since highly influence sales positively. (Hurley & Hult, 2014).

Among commercial banks, anxiety builds up between its main strengths and what already available in the market. (Grant, 2015). High performers in the banking industry weighs down these aspects and comes out with solution to bring out a good business environment. This is quite different from industries thus only looks at their strengths leaving out other internal forces. Weighing out only these internal forces limits business opportunities considering the fast technological business changing world. (Hamel & Prahalad, 2018).

Commercial banks who are high performers target their competence to their well-researched markets and awareness created to their buyers in the market thus increasing their performance. (Narver & Slater, 2018).

Customers, competitors, and cross-functional coordination orientation are the three parts of the market orientation idea in commercial banks. This means that in commercial banks customer satisfaction should be the main objective in the departs in offering the products and services, clients should be given super value according to their desires, on the other hand the management should make it a priority to address swiftly their competitors mainly by means of offering quality products and services, ensure the designed strategies in all departments focus on improvement on their competitors offer. Commercial banks should ensure that there is flow of information in all the departments that is all teams are engaged and information is shared amongst all. Human resources department also should not be left out; all resources should be distributed to all employees in all levels. (Narver & Slater, 2018).

Kohli and Jaworski (2017) as designing probable actions plans on the market from information gathered, high performance results should be the target. The response from these market results and good performance are as a result of innovate ideas,

According to Hult et al., (2014), there should be a separation between the market response and market orientation's informational components. These researchers argue that when market intelligence translates to actions which forms the decision made, the new ideas and changes that have been already affected affect market intelligence.

Similarly, inter functional coordination refers to involvement of all the departments in a firm inform of knowledge sharing, resource sharing, teams work, engaging each and every department in all key competences on decision making for good performance of firm's operations." (Narver & Slater, 2018) it is operational competency based and not marketing competency based. Previous research have advocated for detached these market orientation components because they affect management practices ''(Lukas & Ferrell, 2015). This research adopted these suggestions by separating market orientation from responsiveness and inter functional coordination, ultimately defining market competency as the transmission of idea regarding client- and competitor-oriented demands, actions, and purpose.

However, according to Narver and Slater (2018), market orientation components relate with innovation (Han et al., 2015), literature has shown that innovative culture in commercial banks equally relate with market orientation since te key issues in commercial banks is their profitability. Agboola (2016) view market orientation as an innovative culture agent while Bwaley (2013) suggest that an innovation culture promotes the way information is delivered and shared. According to Chorafas (2017), innovation orientation functions as an agent for market orientation.

**Product Innovation**

A number of different terms define product development. Bryman and Bell (2011) it is the making of a new product or changing to improve value of that already exist. Meyer (2016) separated development into two; primary and secondary innovations. Primary innovations deals with making new technically changing the behavior the customers have while secondary innovations, is the improvement of what already exists. The company embarks on improving their markets to make them better (Gaynor, 2014).

In product innovation for firms to be profitable, they change their new products to new ones and also introduce new processes. (Tufano, 2015; Lawrence, 2015). In the financial services industry, there is promotion of new markets, new technology introduction and new financial tools for use which ensure efficient delivery of information, business and even payments. (Solans, 2018). Mortgage loans in banking industry are one of the products of innovative ideas. In 1980 institutions which were able to move with speed offered mortgage loan on fixed rate. (Pasha, 2015). To get these mortgage loan, a member had to have a good history and had some resources to offer to guarantee the payment which mostly was inform of assets. With time, this has changed, Adjustable-rate Mortgages (ARMs) were developed but have been banned federal regulators. Subprime lending which was abit better inform risk assessment and technology change have replaced ARMS. It was introduced based on statistics on the fact that it was cheaper in pricing and in assessing risk. However, the subprime mortgage has some disadvantages as per statistics developed. (Rakesh, 2014). Another development as a result of innovation is Electronic Funds Transfer at Point of Sale (EFTPoS). This system enables customers to transfer funds from their banks to merchant accounts online and instantly in case of any payment. A POS utilizes debit card to activate an Electronic Fund Transfer Process (Chorafas, 2017). EFTPoS being used by banks enhances productivity on the services offered, this is because customers are able shop online instead handling cheques or withdrawing cash from banks. This system is reliable since even after banks working hours customers can continue transacting various transactions, payments hence services continue un interrupted and this increases productivity. It also saves time for the customers because they do not have to travel to nearest towns looking for ATMs. Airtel and Safaricom mobile phone money transfer services M-pesa and Zap are other examples of product innovation which caters for small scale holders at cheaper cost. Equity Bank in partnership with Safaricom introduced M-kesho which caters for Excel, Priority, Premier and Executive Banking Services. There are also other products for example junior eagle account a product of Absa bank. Storey and Easingwood (2016) depicts product innovation as way of revenue generation while process innovation, on the other hand, reduces expense, protects and maintains products values. For business to realize long term growth, product innovation is very important, it brings change, improved quality products and this helps companies remain relevant and competitive in the market thus improving their performance. If a company want their products to successfully defeat and remain competitive in the markets, they should improve them often to retain their relevance. Simpson (2014) suggests that e-banking is mainly used because it is cost effective and it increases revenue and this makes emerging markets adopt and use it.

Sullivan (2016) in his research concluded that internet banking in US click and mortar banks are of no importance, on the other hand, Furst et al. (2014) said that the same banks had immense revenue on Return on Equity (ROE) after using the click and mortar business model. Furst et al. (2014) further asserts that some other banks have also introduced internet banking since 2016 and not only US and Mortar. Aitikiya (2015) show that in UK there are very few customers who use online bank services and the few banks using it have registered good revenue. Nader (2015) in his analysis on Saudi Arabia Commercial banks during the period 2006- 2007 concluded that provision of phone banking, ATMs in different branches increase revenue. He further said that provided point of sale terminals (POSs), PC and mobile banking reduced profits. Agboola (2016) in his study on Information and Communication Technology (ICT) in Banking operations in Nigeria in assessment of innovated technologies being used concluded that ICT affects positively competition in the banking sector. Also in this study use of ICT, ATMs, EFT, electronic homes, office banking, telephone banking and smart cards improved banks brand which lead to a bigger, swift and effective business. He asserts that banks should invest more in ICT products for speedy, efficient, convenient services to remain viable and productive thus surpass their competitors.

Malhotra and Singh (2015) studied internet banking on bank performance concluded that it is very efficient and cost effective for banks to utilize the use of internet banking. Internet banking also increase banks sales and profits since they can easily be managed with little funds and few equipment and also human resources employed. He also concluded that it is not wise for small banks to use internet banking since it is not cost effective.

Kagan et al. (2015) in their study examined internet banking on community banks performance concluded that making use of internet banking increases performance. Community banks increase their earnings through the use internet banking. Hernando and Nieto (2016) while studying on changes made by internet delivery channels in banks performance, asserted that internet banking enable banks reduce overhead cost thus increase their productivity. The study also showed that intendent banking is used in branches as a key component. It results to cost reduction on overhead

Since its establishment, 18 months down the line, it has shown increasing growth and cost reduction expected to reach its peak after two and half years. Their study demonstrated efficiency gains due to low expenses. Reduction in expense enables banks increase profits since internet banking is used instead of previous traditional distribution channels. This analysis change with time according to respective performance drivers.

### 2.3.3 Process Innovation

According to Cumming (2016), this is improvement or change of delivery procedures to adopt new ones. A good supplier continuously alters delivery methods often at a reduced cost. These low cost sometimes do not reach the customers since they do not affect prices. (Gaynor, 2014). The importance of process innovation is provision of key products which are of good quality and those that satisfy customer needs. (Johne & Storey, 2016). The process alignment embraces quality to outshine competitors so the process precedes the procedures used and equipment to produce products of super value.

Process innovation performers look at connection between work, procedures, and workers and come up with the best that can be done, success and risks  and solutions for any obstacles to retain a sustainable development (Rose, 2017). Success factors realized from best performers include good support from top, new ideas adoption, team, work, knowledge sharing, credible organization and measurable result. If the management take charge of the organization operations, there will be  superb performance in operation processes (Longstaff & Rajan, 2018). Firms who take it as a responsibility to adopt innovative ideas improve administrative processes, embrace changes, learn new skills and encourage knowledge sharing at all levels.

The topic of embracing new ideas in firms have been discussed by different  scholars insist of firms maintaining good products and ensuring consistence process in adoption of new ideas to increase product gains (Damanpour, 2015). Process innovation is very informative and it was designed for identification of quality in products and services in various institutions  especially those with haste to adopt modern technology and ICT approaches.

Process innovation is not easy as it seems, if suppliers supply  goods efficiently, with time he gets profit since he is able to supply the same product at a cheaper production cost. At first customers may not realize this cost reduction since it does affect prices immediately but with time they enjoy. In process innovation good standard on products should be maintained inorder to achieve better results, friendly interactions to the customer is also very vital. (Johne & Storey, 2014). Creation of a good interaction environment attributes to achievement of innovated and adopted strategies and it promotes friendly personal interaction which  translates to good management of organization. Recruitment process can be a challenge since it is not easy for managers to identify talents and the genius one are not easy to manage as well. The organization should not be rigid during this process, Managers to manage genius employees is very challenging, there are those who never adhere to instructions want to take their way and sometimes may not be willing to take up task entrusted to them, so an organization should always be flexible so as to accommodate different types of employee so that the organization achieve its objectives (Djellal & Gallouj, 2014)._Top leaders should ensure plans made are strategically in place and are being followed in a systematic way in managing new products.

Customers wants should be the driving force in innovation (Fifield, 2014; Foxall, 2017). The main objective of any business entity it to satisfy the needs of their customers. Organization structure in an organization should be derived from customer desires, quality of products offered and a structure that keeps an eye on their competitors.

Market-oriented firms when introducing new products in the market always conduct a research first inoder to put into consideration their needs. (Djellal & Gallouj, 2014). These firms never force goods to customers, they provide their needs. For twenty-five years, banks have immensely changed production processes. The adoption of electronic transmission in retail payments from one bank to another which started in 1970s has been embraced and adopted in commercial banks. In terms of intermediation, banks highly rely on statistical models.

Credit facilities has increased where no tangible securities are provided, there has been introduction of small business loans which were not there before since credit score in banks had increased, meanwhile in some cases credit risk models are being used in case of structured products that may require tangible security to be attached. Statistical modeling is very key in risk assessment management in banks which is done through portfolio stress testing and value-at-risk models, this is done for value addition and to ensure financial asset returns.

Real Time Gross Settlement (RTGS) system is used to transfer money from a bank to another instead of withdrawing, carrying to deposit in another bank. Real time means as transactions come in they are processed. Gross settlement means the transactions are not mixed with others, they are worked on one one. RTGS system is mostly used when handling huge transactions. Receiver bank credits the transaction immediately they are received. Mortgages, credit card debt, and vehicle loans are all examples of consumer loans that have been securitized through the asset securitization process. As of 2007, $9.0 trillion in U.S. dollars has been invested in federally sponsored mortgage pools and privately structured ABS offerings (including private-label mortgage-backed securities). In contrast, by the end of 2017, each had reached $1.3 trillion.

Most recently, securitized agreements have been introduced as an innovation in the structured finance/securitization sector (CDOs). Such securities, that were originally introduced in the middle of the 2017s, are valued at $1.5 trillion now, according to Longstaff & Rajan (2018).

The banking sector is constantly looking to improve their processes, and one area of focus is risk management. Over the past two decades, there have been significant shifts in the way banks manage their risks due to developments in both hardware and software as well as in the theory underlying finance. Stress tests and value-at-risk models are being used to evaluate financial risks (VaR). Banks do this to ensure their financial stability in the event a loan defaulter fails to repay their debt.

### 2.3.4 Technological Innovation

This is where use of improved technologies is is applied by commercial banks in offering products and services. (Goh, 2015). The innovation process involves various procedures which enable creating new or improving already available products and services to acquire better one. Therefore, technological innovation concept deals with, creating new software, using them, disbursing them for use in the organization. Innovation orientation involves the adoption of technology too be used in an organization, assessing it strengths and weakness and modelling it to enable the organization achieve its performance set goals. Utterback and Abernathy (2018) and Galbraith and Schendel (2015) both argue that companies should take a wide range of technologies into account when deciding on viable strategies.

As per other studies, digitally enabled businesses choose and employ their resources for expansion as well as for acquiring fresh R&D and technologies that alter their business model and how they operate (Han et al., 2015). Empirical studies previously studied demonstrate that innovations in firms succeed due to technology choices made. Gatignon and Xuereb (2017), technology may not be the only factor to growth and productivity of a firm, innovation-oriented firms may use it to improve innovation. Similarly, innovation-oriented firms are very aggressive in doing research on the technology equipment to use, how they can acquire and use these new technologies for affective innovation (Grupp, 2014).

Several technological innovations have been realized in the banking industry over the years, including There are many different ways to conduct financial transactions these days, including ATMs, mobile banking apps, PC banking, Online banking, and branch networking. According to Rose (2017), which is cited by Abor, an ATM is "a pairing computer terminal, record-keeping system, and cash vault that allows clients to access the bank's accounting software with a smartcard comprising a Personal Identification Number (PIN) either through punching a special key code into the computer terminal connected to the bank's computer systems 24/7.".

ATMs are found outside banks, in airport, malls and in other various places away from homes. Originally used only for making withdrawals, ATMs now provide many different financial services, including account deposits, inter-account transfers, and bill payment. Banks leverage them to gain an edge in the market. By utilizing both automated and human tellers, banks are demonstrating their efficiency and allowing their customers to receive services more quickly and with less hassle.

When compared to human tellers, ATMs are much more cost-effective and productive. As opposed to human tellers, ATMs can process an estimated 6,400 transactions per month (Rose, 2017). And they keep things running smoothly long after the bank has closed for the day. Telebanking, sometimes known as "telephone banking," refers to a type of remote or "virtual" banking in which a bank's customers can access banking services by dialing a toll-free number or by using a mobile phone to access their account information. AVR (Automated Voice Response) technology links this component to the bank's automated system (Balachandher et al., 2015).

Both clients and banks can gain greatly from using telebanking as stated by (Leow , 2017). Customers will appreciate the time and effort savings and expanded availability brought forth by this service. Banks save money since no customers need to travel between locations. In the same way that automated teller machines (ATMs) boost productivity, this one does the same for cash. Customers can access ATMs whenever they choose from the convenience of their own homes or workplaces, increasing efficiency.

As a service, Electronic Banking connects consumers to their bank's data via a secure, encrypted, and password-protected network and custom-built software on their own computers. After logging in, patrons can conduct a wide range of in-store transactions using their pcs; this is a huge boon for Computer banks given that they are accessible around the clock, every day of the week. The convenience of ATMs and Telephone Banking are further bonuses (Grupp, 2014).

Per the Essinger (2017), web-based banking enables users to log into their bank accounts online and undertake a variety of operations with relatively few security precautions.

Naturally, Internet banking is very convenient and flexible to customers and they have no control in using their accounts. It is informative and answers all their queries in all bank transaction can be answered electronically. Banks are networked and connected geographically into one unified system in the form of a Wide Area Network (WAN) or Enterprise Network (EN) to ensure customer records are shared and consolidated (Gallouj, 2015). This enables quick and faster service delivery since the there is no aspect of time and distance. With the several networked branches serving the big population, there are a small number of employees and this reduces cost and increases productivity. Also customers can utilize time saved in other profitable activities. (Essinger, 2017).

### 2.3.5 Performance of Commercial Banks

An increasing number of developed and developing countries are establishing evaluation and reporting of company effectiveness as standard practice (Williams, 2017). Key

Performance Indicator (KPI) is a metric used to evaluate the success of a business or government program (Williams, 2017). Performance measurement systems are a leading indicator for adoption, according to scholars such as (Moynihan 2015); (Vakkuri & Meklin 2016).

KPIs have senses and are manufactured in way they easily interact by users. Its quantitative quality improves its rationale and image  and this makes many sectors in different countries recommend it for use in measuring their performance. (Gallouj, 2015). According to Ingraham (2015), these KPIs features enables citizen to easily understand and use it in the many organizational department and programs it has been adopted.

Cicea and Hincu (2015) states that, one of the main duties of commercial banks is credit lending to its citizens and government. Without credit, there is no economy growth since in a way its acts as an engine for a growing economy. Commercial banks create financial flow to a country and they have great impact on its economy. The management of every commercial bank should from time to time, keep track on their investment performance so that they remain productive, make a roadmap to take and also be able to predict their future. Banks must also keep evaluating customers' needs at different intervals to ensure sufficient flow thus increase their revenues which is their main objective.

When a bank start making profits, it can embark on expansion and engage in other risks projected for growth. Dardac and Barbu (2015) claim that banks utilize the ratios of return on equity (ROE) and return on assets (ROA as well as the indicator of financial leverage (Equity / Total Assets) to gauge the success of their business strategies. Banks profits shows that that  bank is performing well. Observers receive these indicators from banks for assessment for a certain period of time. The keep checks on changes which have been made on the action plans of the bank, their policies and its external and internal business environment. (Balachandher et al., 2015).

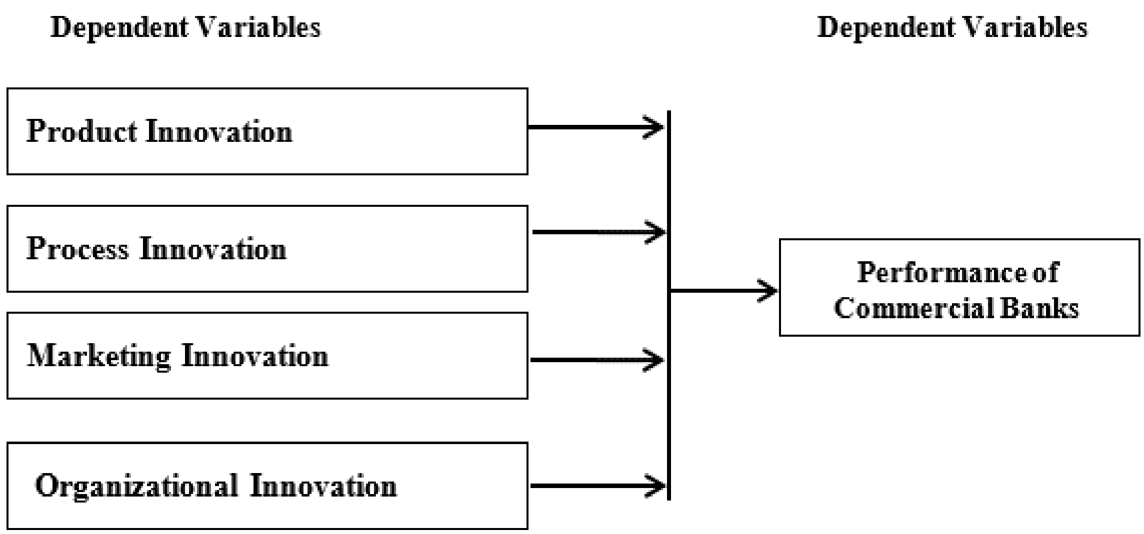
Banks assets (ROA) can also be used to measure its gains. This means banks' profits to the ration of its total assets will give what the bank has accumulated as profits. After taxes, the commercial banks income statements give profit the banks have earned. Banks ratio on pre-tax profits on equity (RAO) measures to its profit. IF a bank records high equity ratio this translates to high return on its assets (Troy et al., 2015).

## 2.4 Conceptual Framework

As displayed in Figure 2.2 below, a conceptual model for the current research will illustrate the link between product innovation, process innovation, marketing innovation as the independents while banks performance as the dependent factor. A conceptual framework is a technique that organizes empirical observations into a logical structure (Ovaskainen, Tikhonov, & Abrego, 2017).

**Figure 2. 2*:***

***Conceptual Framework***

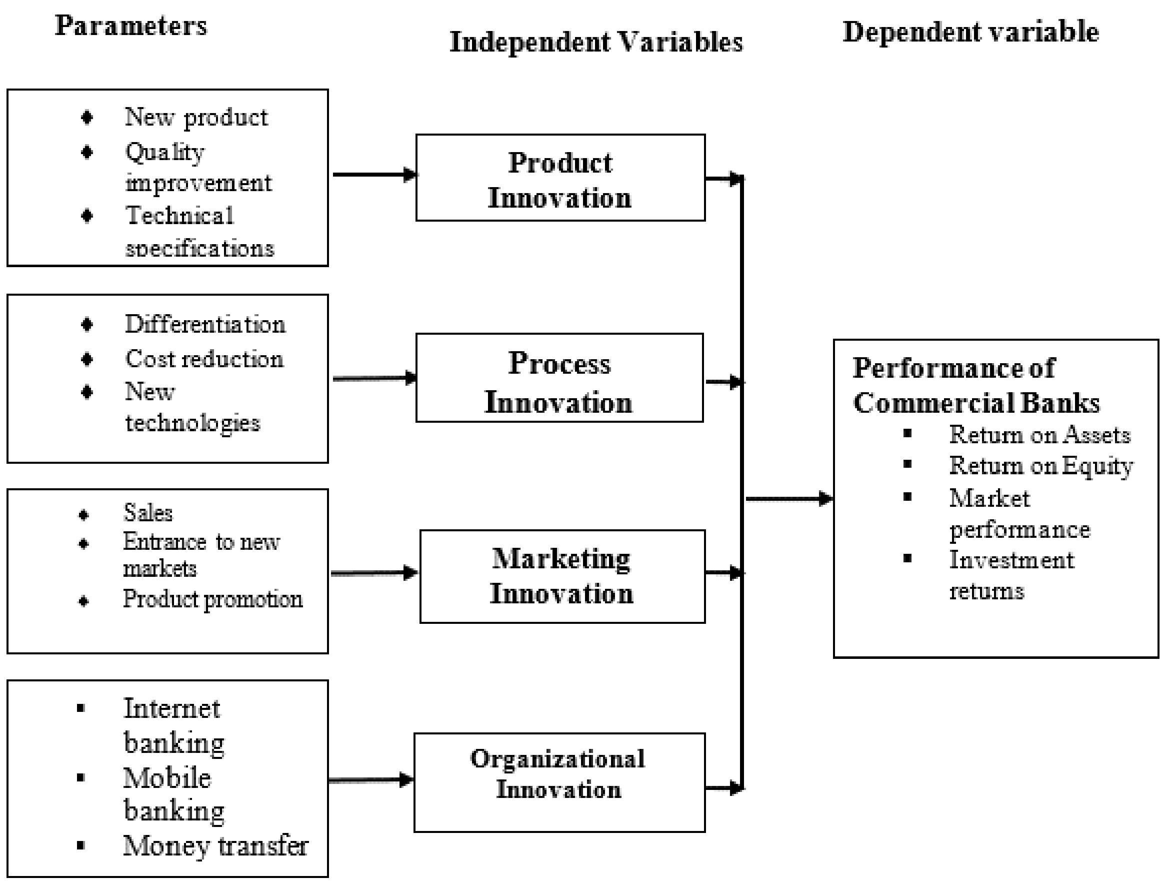



***Source: Author (2022)***

## 2.5 Operationalization of the variables

**Figure 2. 3*:***

***Operational Framework***




***Source: Author (2021)***

## 2.6 Summary of the Research gap

Prior studies on the effects of financial innovation on bank performance have not only yielded contradictory findings. but have also neglected the importance of strategic innovations. Pooja and Singh (2017) and Galbraith, & Schendel, 2015), made a conclusion that banks performance is least influenced by its financial innovations. while Kago et al., 2018) and Misati et al. 2017) in their study made conclusion that performance in banks is highly influenced by financial innovation adopted.

For instance, Muia, (2018) study in Nairobi City County Kenya on innovation practices effect in public sector gave a conclusion that product innovation, process innovation, technological innovation, market innovation and organizational innovation affects performance in public sector. Bwaley (2013) in his study on how innovation strategies and competitive advantage relationship among banks listed in the Nairobi Stock exchange affect their performance made a conclusion that new ideas adopted affect competitive advantage among banks in a good way

Mugo (2015) performed a study on innovations and performance of Kenya ‘s wine industry and established that market innovation gave the companies an opportunity to market their products through various media channels, deal with customer complaints urgently, deliver products according to customer orders while at the same time entering new markets and this enables the companies to be competitive in the market. Asikhia (2015) investigated the relationship between micro and small business process innovation and performance in Kiambu. The study indicated that there was a favorable correlation between the performance of certain MSEs in Kiambu Town and the adoption of process, product, positioning, and paradigm innovations.

In addition, Ongonga and Ochieng (2013) conducted a study on effects of process innovations on performance of tea firms in Kericho County. The study concluded that innovative strategies a firm has adopt enable increase in profits, it become more productive and low expenses Muthoni (2018) investigated strategy innovation in telecommunication firms’ performance in Kenya and did a case study of Safaricom Limited, Airtel limited and Telkom Kenya Limited in Nairobi. The study established that product innovations dictate how work is done in telecommunication firms. This study therefore seeks to determine the performance of commercial banks in Kenya is affected by action plans adopted with reference to tier one commercial banks.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

This section describes the strategies employed to gather information for this study. Information about the study's methodology, including its design, sampling strategy, data collection methods, validity and reliability tests, research protocols, and data processing techniques, are described here.

## 3.2 Research Design

A research project's research design is the overarching plan that lays out how an investigation will be conducted. Both Kumar (2019) and Saunders et al. (2016) characterize it as a path to achieving research aims and providing an explanation of the selection of data sources, data gathering procedures, and analytic approaches.

Herein are laid out the broad strokes of the data-gathering operation, including the procedures to be followed when information is gathered for research purposes and the analysis to be performed on those data. The research method used in this study was a descriptive survey. Respondents to a descriptive study's questionnaires provide valuable insight into the research's nature and scope. According to Saunders et al. (2016), the population of interest is best described by this research methodology, and the results are presented accurately as a result. Through the use of this study design, researchers were able to more accurately depict the situation based on the data obtained, which facilitated more informed decision making.

The researcher favored the present study's methodology because it not only limited itself to data collection and description, but also sought to establish causal linkages between the variables of interest.

### 3.3 Population of Study

All of the people who live in a certain area from whom a study draws conclusions are collectively called its "population" (Ledford & Gast, 2018). According to Saunders et al. (2016), the study's population is comprised of 33 predetermined cases drawn from a larger sample. Nevertheless, according to Ledford and Gast, the thing that is actually measured is called a "population element" (2018). The Kenya Bankers Association report for 2021 states that there are eight commercial banks in Kenya that are considered to be "tier one." In particular, this research aimed to examine the 8 premier commercial banks in Nairobi County (see Appendix IV). There was an emphasis on the banks' upper-level management teams. With the goal of gaining a well-rounded understanding of the issues at hand, it was determined that this was necessary representation from commercial banks was required. Table 3.1 lists the demographics of the study's intended sample.

**Table 3. 1:**

***Target Population***

| Category | Population | Percentage |
|---|---|---|
| Senior management | 47 | 9.5 |
| Middle management | 133 | 26.9 |
| Lower management | 314 | 63.6 |
| **Total** | **494** | **100** |

***Source: Kenya Bankers Association report 2021***

### 3.4 Sampling Technique and Sample Size

**Sampling Technique**

A sampling technique is a scheme used to select from a general population a specific area a researcher wants to get information about. As described by Saunders et al. (2016), there are two distinct types of sampling methods: probability sampling and non-probability sampling. This type of sampling, known as probability sampling, combines the benefits of both random sampling and cluster sampling strategies. This study suggests doing so because it ensures that every member of a population has an equal shot at getting chosen.

Probability sampling is uncomplicated and unbiased, as opposed to non-probability sampling's purposeful and convenience designs. Using a stratified random sampling method, the researcher determined the necessary sample size by selecting three levels of management (top, middle, and lower) as strata, and then randomly selecting one employee from each of the commercial banks' headquarters, since those employees would have the most up-to-date information on the variables under investigation. Taking into account the varied viewpoints provided by the three commercial banking employment levels, three groups were deemed sufficient for this analysis.

**Sample Size**

A sample is a unit that forms the population to be used in the study as the target population that a researcher identifies to get population facts to be used in a study. (Kumar, 2019). If a large population is used, the percentages will be small and smaller population may not give the research the collect information about a population. However, Bresler and Stake (2017) if a big precision is required the sample identified should be also big. The Yamane (1967) formula was used to estimate the required sample size as provided below.

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

N = total number in population; e = acceptable error; for 95% certainty, use a value of 0.05 for n. The relevant formula is presented in detail below:

$$n = \frac{494}{1 + 494(0.05)2}$$

$$\boldsymbol{n = 221}$$

**Table 3. 2:**
***Sampling Size***

| Category | Population | Sample Ratio | Sample |
|---|---|---|---|
| Senior management | 47 | 0.447 | 21 |
| Middle management | 133 | 0.447 | 60 |
| Lower management | 314 | 0.447 | 140 |
| **Total** | **494** | **0.447** | **221** |

***Source: Kenya Bankers Association report 2021***

### 3.5 Research Instrument

Both primary and secondary sources were utilized. The primary information gathering tool was questionnaires. In order to get at the heart of the study questions, the questionnaires were made to elicit a wide variety of responses from participants. Most of the questions on the surveys were multiple-choice in nature, with the goal of eliciting definitive responses about the relevant factors. Managers at the leading commercial banks in Nairobi were requested to fill out questionnaires to serve as the study's primary data source. To contrast this primary data, we gathered secondary sources such as academic journals and publicly available financial accounts covering the five years from 2017 to 2021. This time frame was chosen because it allowed for a comprehensive analysis of how various innovations across time have influenced the success of tier one commercial banks. This research relied on yearly data. It was utilized to collect secondary data using the secondary data collection form (Appendix III).

### 3.6 Data Collection Methods

We combined data from both original interviews and published literature for our analysis. Primary information was gathered using questionnaires, and researcher visited internet sites of the CBK were combed for secondary data. The secondary data utilized to back up the results focused on the return on equity (ROE) of commercial banks during a five-year time frame.

### 3.7 Pilot Study

First, the investigator ran a test run using a small sample of the questionnaire. The research instruments' validity and trustworthiness were put to the test via pilot studies. Respondents were given adequate time to complete the research instruments. Issues including data sources, data techniques, collecting time, existence of any bias, and level of accuracy were determined by reliability and validity testing of the data. The investigator made changes to the instrument by reviewing and maybe removing data.

#### Validity of the Research Instrument

A study is valid if it measures what it intends to measure (Dempsey, 2017). Equally important is the researcher's ability to demonstrate that no adequate alternatives were used in the research. Furthermore, validity predicts how well facts generalize to a population. The validity analyses examine the form, the content, and the structure of the questionnaire. The questionnaire's face validity was established through discussions with experts and academics in the subject of strategic management. The researcher conducted a literature search to collect theoretically sound information about the independent and dependent variables.

### Reliability of the Research Instrument

Fletcher (2017) defines reliability as the ability of research instruments to produce consistent measures. The level of internal consistency was calculated using Cronbach's alpha. Cronbach’s alpha is a reliability coefficient that point out correlation of the items which should be between 0 and 1 (Dempsey, 2017). When the coefficient values are high reliability is high and less meant less reliability. Fletcher (2017) recommends that acceptable alpha should be at reliability 0.70 or above.

### 3.8 Data Analysis

The data collected in this research were analyzed using both descriptive and inferential statistics. Descriptive statistics are a method of presenting data in a user-friendly format that can aid in the development of meaningful observations. Graphs and tables were created to help coordinate and share data more quickly.

Inferential statistics were run with the help of correlation and multivariate regression. The degree of connection between the four hypotheses was evaluated using a correlation analysis. In order to analyze the interdependencies between the independent and dependent variables, multiple regression was employed. For the statistical analysis, we used SPSS 25. This is the model that was used in the regression analysis:

$$Y= \alpha +\beta1x1 +\beta2x2+\beta3x3+ \beta4x4+\varepsilon$$

Y = Performance of commercial banks

$\alpha$ =Constant term

$\beta$= Beta Coefficients

$X_1$ = Market innovation strategies

$X_2$= Product innovation strategies

$X_3$= Process innovation strategies

$X_4$= Technology innovation strategies

$\varepsilon$ = Standard Error

Diagnostic tests of normality, Multicollinearity and heteroscedasticity Tests of normality establishes how the data flows, whether an asymmetrical or normal distribution. Shapiro-Wilk and Kolmogorov-Smirnov Tests tested normality in this study. For data to be significant probability should be greater than 0.05or else it diverges form normal distribution.

Kumar (2019) states that multicollinearity tests assess how highly correlated the factors are. Examining the Variance Inflation Factor (VIF) Problems with multicollinearity when comparing independent variables. Multicollinearity is strong when the VIF is 10, and it is low when the VIF is 5. The VIF Calculation Formula

$$\text{VIF} = \frac{1}{1 - R^2}$$

Homoscedasticity indicates that some errors can be found in a constant variance. Heteroscedasticity a diversion of homoscedasticity makes it difficult to deliver accurate forecast errors ‘standard deviation. This study used Levene test in looking for presence or absence of Homoscedasticity.

### 3.9 Ethical Consideration

The researcher used a research permit before proceeding to collect data which was acquired from National Commission for Science Technology and Innovation (NACOSTI). The researched shunned away from anything that could alter research subjects and gave report only on what was observed from respondents after data collection and analysis.

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# CHAPTER FOUR

# DATA ANALYSIS AND RESULT PRESENTATION

## 4.1 Introduction

This report covers tables containing the results of the analyzed data gathered on the effects of strategic innovation on performance at Kenya's top commercial banks and an explanation of what those results mean. Diagnostic procedures, descriptive statistics, inferential statistics, and an analysis and interpretation of the results all make up parts of this report.

## 4.2 Response

Even though the researcher sent out 221 questionnaires, only 170 were filled out and returned. At 77.1%, this was a very respectable response rate. As per the requirement of Ledford and Gast (2018), a response rate of over 50% is sufficient for analysis, hence this was a satisfactory response rate. Results are displayed in Table 4.1.

**Table 4. 1:**

***Response Rate***

| | Number of Informants | Percent |
|---|---|---|
| Response | 170 | 77.1 |
| Non- Response | 21 | 22.9 |
| **Total** | **221** | **100** |

***Source: Field data 2022***

## 4.3 Reliability and Validity of the Research instrument

### Reliability Analysis

It is common practice to conduct a small-scale pilot study to determine if the final study will accurately reflect the original objectives. It helped in establishing the dependability of the questionnaire. Following this, Cronbach's Alpha was used to do a reliability analysis, which checks to see if different items on a scale consistently measure the same thing. The cutoff Alpha value was established by Hair et al. (2016). Data are shown in Table 4.2.

**Table 4. 2:**

***Reliability Analysis***

| Variable | Cronbach's Alpha |
|---|---|
| Market innovation | 0.837 |
| Product innovation | 0.852 |
| Process innovation | 0.85 |
| Technology innovation | 0.87 |
| Performance of tier one commercial banks | 0.841 |

***Source: Field Data (2021)***

From the results, Cronbach Alpha analyzed all objective which formed a scale and conclusion made that there was reliability of all the variables because their Cronbach Alpha values were greater than 0.7. Technology innovation had the highest Cronbach Alpha value of 0. 870, then product innovation with 0.852, followed by process innovation with 0.850, then performance of tier one commercial banks with 0.841 and market innovation had the lowest Cronbach Alpha value of 0.837. These findings were in line with Zikmund (2017) relevant research instruments produce reliable variable are there viable results with no further recommendations are produced.

**Validity Analysis**

Construct validity of the survey was determined using exploratory factor analysis. It was hypothesized that the underlying constructs would be reflected by the factors accounting for the largest amount of variance in the variables._Analyses of validity are displayed in Table 4.3.

**Table 4. 3:**
***Validity Analysis***

| Component Matrix[a] | | | | | |
|---|---|---|---|---|---|
| | Component | | | | |
| | **1** | **2** | **3** | **4** | **5** |
| Women banking | 0.617 | 0.62 | 0.097 | 0.251 | 0.234 |
| Youth banking | 0.861 | 0.472 | 0.049 | 0.044 | 0.014 |
| Club and kids banking | 0.42 | 0.592 | 0.201 | 0.387 | 0.08 |
| Customer surveys | 0.222 | 0.363 | 0.122 | 0.73 | 0.067 |
| Research and development | 0.012 | 0.045 | 0.157 | 0.964 | 0.028 |
| Mobile loans | 0.932 | 0.170 | 0.268 | 0.021 | 0.007 |
| Personal unsecured loans | 0.501 | 0.757 | 0.088 | 0.144 | 0.181 |
| Debit cards | 0.452 | 0.177 | 0.803 | 0.108 | 0.059 |
| Agent banking | 0.158 | 0.635 | 0.065 | 0.170 | 0.671 |
| Credit cards | .004 | .406 | .069 | .861 | .033 |
| Digitalization of all retail products | .804 | .299 | .085 | .098 | .059 |
| Electronic Funds Transfer | .282 | .053 | .324 | .105 | .543 |
| Cheque processing | .164 | .340 | .881 | .015 | .045 |
| Automation | .021 | .032 | .263 | .236 | .655 |
| Improved queuing | .827 | .464 | .079 | .048 | .020 |
| Number and distribution of ATMs | .371 | .901 | .093 | .018 | .030 |
| My bank uses electronic funds transfer innovations | .612 | .591 | .141 | .007 | .036 |
| Adoption of ATM innovation has reduced operational costs for the bank | .076 | .283 | .113 | .404 | .403 |
| Point of Sale innovations have enhanced operational efficiency | .105 | .036 | .963 | .033 | .011 |
| Debit cards adoption has reduced number of clients visiting banking halls for financial transaction | .176 | .421 | .271 | .315 | .293 |
| Branchless banking has enhanced operational effectiveness of the bank | .961 | .005 | .094 | .045 | .007 |
| Return on Assets | .918 | .282 | .019 | .065 | .038 |
| Return on Equity | .258 | .239 | .003 | .485 . | .161 |
| Market performance | .027 | .286 | .011 | .058 | .929 |
| Investment returns | .978 | .183 | .057 | .022 . | .007 |

*Extraction Method: Principal Component Analysis. A. 5 components extracted.*

The results identified 5 major factors extracted from the variables. The 25 parameter were investigated and put under one of the 5 factors as per their variability percentage. This showed the variability of the factors. Factors analysis showed high construct validity of the variables since they were all above 0.40. (Saunders et al., 2016).

### 4.4 Diagnostic Tests

Normality, heteroscedasticity, and Multicollinearity were tested and the findings presented in various sub sections.

**Normality Test**

The Shapiro-Wilk test was used to confirm this. If the Shapiro-Wilk P-value is larger than 0.05, then the data are normally distributed. Data deviated from a normal distribution at the 0.05 level. The findings are as illustrated in Table 4.4.

**Table 4. 4:**

***Normality Test***

| | Kolmogorov-Smirnova | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | **Statistic** | **df** | **Sig.** | **Statistic** | **df** | **Sig.** |
| Market innovation | 0.071 | 169 | 0.000 | 0.989 | 169 | 0.07 |
| Product innovation | 0.117 | 169 | 0.000 | 0.941 | 169 | 0.376 |
| Process innovation | 0.11 | 169 | 0.001 | 0.945 | 169 | 0.211 |
| Technology Innovation | 0.116 | 169 | 0.000 | 0.944 | 169 | 0.092 |
| Performance of tier one commercial banks | 0.11 | 169 | 0.001 | 0.817 | 169 | 0.105 |

**. This is a lower bound of the true significance.*
*a. Lilliefors Significance Correction*

Data on both the dependent and independent factors are normally distributed, that helps in the forecast of the dependent variables, as shown by the p-values in Table 4.4 for the

Kolmogorov Smirnov test and the Shapiro-Wilk test, respectively. This means that Ho is rejected. The data can be assumed to be normally distributed if the Sig. value of the Shapiro-Wilk Test is more than 0.05, as stated by Uttley (2019). For p to be less than 0.05, the data must be significantly out of line with a normal distribution.

### Heteroscedasticity

Levene test was used in testing Heteroscedasticity where P-value was less than 0.05 and this showed non-uniform variance was present The findings are as illustrated in Table 4.5.

**Table 4. 5:**
***Levene Test Results***

| | Levene Statistic | Df1 | Df2 | Sig. |
|---|---|---|---|---|
| Market innovation | 0.183 | 1 | 169 | 0.021 |
| Product innovation | 2.171 | 1 | 169 | 0.014 |
| Process innovation | 3.172 | 1 | 169 | 0.031 |
| Technology Innovation | 4.238 | 1 | 169 | 0.003 |
| Performance of tier one commercial banks | 1.211 | 1 | 169 | 0.047 |

This analysis revealed that there was a lack of heteroscedasticity in the dataset, which is crucial for the modeling of regression equations, and that all of the variables (market innovation strategies, product innovation strategies, process innovation strategies, technology innovation strategies, and performance of tier one commercial banks) had p-values less than 0.05.

### Multicollinearity

Collinearity statistics tested correlation of the variables and their substantial causal correlation. Table 4.6 shows the results

**Table 4. 6:**

***Collinearity Statistics***

| | Collinearity Statistics | |
|---|---|---|
| | **Tolerance** | **VIF** |
| Market innovation | 0.927 | 1.079 |
| Product innovation | 0.466 | 2.146 |
| Process innovation | 0.603 | 1.658 |
| Technology Innovation | 0.638 | 1.567 |
| Performance of tier one commercial banks | 0.776 | 1.289 |

Using the outcome of the coefficients, Table 4.6 reveals that the VIF for market innovation was 1.079, that for product innovation was indeed 2.146, that for process innovation that is 1.658, that for technology innovation was also 1.567, and that for the performance of tier one commercial banks that was 1.289. Values for the intercorrelation function (VIF) of the variables were less than 10, and the tolerance was larger than 0.1, indicating that there was no evidence of multicollinearity (Kumar, 2019).

## 4.5 Background Information

It is necessary to examine the connections between the study's variables; it was considered important to first establish the respondent's information background. Therefore, this section characterizes the respondents by their gender, number of years in service and highest level education.

### Gender of the Respondent

The respondents were supposed to indicate their gender. This was illustrated in Table 4.7 below.

**Table 4. 7:**
***Distribution of Respondents by Gender***

| | Frequency | Percent |
|---|---|---|
| Male | 101 | 59.4 |
| Female | 69 | 40.6 |
| **Total** | **170** | **100** |

From the findings, 59.4%of the respondents were male while 40.6% were female. This demonstrates that despite the bigger number of respondents being male and further there was a balance of gender in the management staff of the tier one commercial banks in Kenya.

**Number of Years in Service**

The respondents were asked to indicate the number of years in service. Table 4.8 describes the respondents ‘response.

**Table 4. 8:**

***Distribution of Respondents by Number of Years in Service***

| | Frequency | Percent |
|---|---|---|
| 0– 5 years | 31 | 18.2 |
| 5 – 10 years | 39 | 22.9 |
| 10 – 15 years | 36 | 21.2 |
| 15 – 20 years | 42 | 24.7 |
| Over 20 years | 22 | 12.9 |
| **Total** | **170** | **100** |

***Source; Field Data 2022***

The responses revealed that 24.7% of the respondents had worked for 15 – 20 years, 22.9% had worked for 5 – 10 years, 21.2% had worked for 10 – 15 years, 18.2% had worked for 0– 5 years while 12.9% had worked for over 20 years. This indicated that most respondents had sufficient banking industry expertise to provide the necessary information for the study.

**Highest Education Level Attained**

The respondents' highest level of education was also inquired about in the study. Table 4.9 displays the responses received.

**Table 4. 9:**
***Distribution of Respondents by Highest Education Level***

| | Frequency | Percent |
|---|---|---|
| Primary Certificate | 3 | 1.8 |
| Diploma | 69 | 40.6 |
| Undergraduate | 62 | 36.5 |
| Postgraduate | 36 | 21.2 |
| **Total** | **170** | **100** |

***Source; Field Data 2022***

The findings reveal that 40.6% of the respondents had attained a diploma, 36.5% had reached the undergraduate level, 21.2% had reached the postgraduate level while 1.8% had attained a primary certificate. This is very possible as a result of skills, knowledge as well as competencies that the management level is required to have. Even so, the respondents with high level of education were well informed and hence provided reliable information.

### 4.6 Descriptive Findings

The study's objective was to examine the impact of strategic innovation on the performance of Kenya's top commercial banks. The key variables that guided this research were the rate of market and product innovation. Commercial banks in Kenya are studied to determine the relationship between process innovation, technological innovation, and the banks' bottom lines. It is on the basis of these factors that we report our findings.

#### Market Innovation

The This research aimed to determine the impact of market innovation strategies on Kenya’s tier one commercial banks in Kenya the performance.  The outcomes were as presented on Table 4.10. below.

**Table 4. 10:**

***Effect of Market Innovation Strategy Practices on Bank Performance***

| Opinion | SD | D | N | A | SA |
|---|---|---|---|---|---|
| One of the primary goals of our market innovation strategy is to improve the quality of our products and services. | 16(9.4%) | 3(1.8) | 4(2.4%) | 31(18.2%) | 116(68.2%) |
| Our market innovation strategy includes a focus on customer happiness. | 0.0% | 24(14.1%) | 2(1.2%) | 96(56.5%) | 48(28.2%) |
| Our market innovation strategy includes improving administrative processes. | 0.0% | 7(4.1%) | 31(18.2%) | 34(20.0%) | 98(57.6%) |
| An essential component of a market innovation strategy is internal cooperation. | 15(8.8%) | 17(10.0%) | 16(9.4%) | 10(5.9%) | 112(65.9%) |
| Our business model and market innovation are best suited for pleasing our customers. | 5(2.9%) | 0.0% | 20(11.8%) | 84(49.4%) | 61(35.9%) |
| Market innovation significantly improved organizational performance. | 0.0% | 14(8.2%) | 1(0.6%) | 52(30.6%) | 103(60.6%) |
| Since the introduction of market innovation, the bank's competitiveness has significantly grown. | | 3(1.8%) | 3(1.8%) | 84(49.4%) | 80(47.1%) |

***Source; Field Data 2022***

As the findings in Table 4.10 illustrated, most of the respondents (86.4%) generally agreed with the opinion that one of the primary goals of their market innovation strategy is to improve the quality of their products and services, 11.2% disagreed with the opinion while only 4.2 were neutral to the statement. The outcome of the study (84.7%) also revealed in general that their market innovation strategy includes a focus on customer happiness, 14.1% disagreed with the statement while 1.2% were neutral with statement. Additionally, most of the respondents 77.6%) generally agreed that their market innovation strategy includes improving administrative processes, 18.2% were neutral while 4.1 1% disagreed with the opinion. The findings also revealed that most of the respondents (71.8%) generally agreed that an essential component of a market innovation strategy is internal cooperation, 18.8% never agreed while only 9.4% were neutral. Most of the respondents (85.3%) agreed that their business model and market innovation are best suited for pleasing their customers, 11.8% were neutral while 2.9% disagreed with the opinion. Further, most of the respondents (91.2%) agreed that market innovation significantly improved organizational performance, 8.2% of them were in disagreement while 0.6% were neutral. At the end, highest number of respondents, that is, 96.5% were in agreement that since the introduction of market innovation, the bank's competitiveness has significantly grown, However, 1.8% of the respondents were neutral and disagreed with the opinion. These findings are in line with Kimberly (2016) who stated that for a business to fulfill its set goals and objectives, it is very vital to deal with the market while divided into segments which is called markets segmentation so as to reach every customer and fully satisfy their wants. Approaching the whole market may lead to losses since some products may be directed to customers who do not need them and vice versa. It may also lead to loss of finances.

### Product Innovation

The research sought to determine product innovation strategies which are important for tier one commercial banks in Kenya performance. The results are as shown in Table 4.11.

**Table 4. 11:**

***Effect of Product Innovation Practices on Bank Performance***

| Opinion | SD | D | N | A | SA |
|---|---|---|---|---|---|
| Both the supply of the primary product and the support component of any offer depend on product development. | 0.0% | 3(1.8%) | 1(0.6%) | 80(47.1%) | 86(50.6%) |
| Bold, imaginative, and early product development offer more incentives and performance improvement | 0.0% | 6(3.5%) | 1(0.6%) | 32(18.8%) | 131(77.1%) |
| Innovation in products boosts employee morale inside a firm. | 0.0% | 12(7.1%) | 34(20.0%) | 63(37.1%) | 61(35.9%) |
| Employee productivity in a firm rises thanks to product innovation | 0.0% | 3(1.8%) | 5(2.9%) | 83(48.8%) | 79(46.5%) |
| Product innovation boosts rewards and recognition in the workplace. | 0.0% | 3(1.8%) | 0.0% | 78(45.9%) | 89(52.4%) |
| Product innovation improves employees' performance across the board for the company. | 1(0.6%) | 2(1.2%) | | 84(49.4%) | 83(48.8%) |
| Product innovation boosts the annual sales revenue growth rate. | 2(1.2%) | 3(1.8%) | 3(1.8%) | 103(60.6%) | 59(34.7%) |

***Source; Field Data 2022***

As the findings in Table 4.11 illustrated, most of the respondents (97.1%) generally agreed with the opinion that providing primary product and assistance of any offer depend on product development, 1.8% disagreed with the opinion while only 0.6% were neutral to the statement. The outcome of the study (95.9%) also revealed in general that bold, imaginative, and early product development offer more incentives and performance improvement, 3.5% disagreed with the statement while 0.6% were neutral with statement. Additionally, most of the respondents (73.0%) generally agreed that Innovation in products boosts employee morale inside a firm, 20.0% were neutral while 7.1% disagreed with the opinion. The findings also revealed that most of the respondents 95.3% generally agreed that employee productivity in a firm rise thanks to product innovation, 2.9% were neutral with the opinion while only 1.8% were in disagreement. Most of the respondents (98.3%) agreed that product innovation boosts rewards and recognition in the workplace while 1.8% disagreed with the opinion. Further, most of the respondents (98.2%) agreed that product innovation improves employees' performance across the board for the company, while 1.8% were in disagreement. Lastly, there was general agreement by most of the respondents 96.5% that product innovation boosts the annual sales revenue growth rate, 3.0% were in disagreement while 1.8 were neutral to the same opinion. The results are in consonance with Solans (2018) who note that in the financial sector, product innovation is the process of developing and distributing novel financial instruments, technologies, institutions, and marketplaces that improve consumers' ability to acquire and use financial services, such as banking, investing, trading, and making payments. The respondents ‘opinions on other product innovation strategy practices that improve the financial performance of their banks were also sought. The respondents indicated that financial performance is boosted when businesses implement product innovation techniques include creating new items, refining old ones, and providing a broader selection of products than rivals. Further quality improvement and technical specifications were also indicated to improve the financial performance of their banks

**Process Innovation**

The research investigated process innovation strategies effects on tier one commercial banks in Kenya performance. Table 4.12 displays the results.

**Table 4. 12:**

***Effect of Process Innovation Practices on Bank Performance***

| **Opinion** | **SD** | **D** | **N** | **A** | **SA** |
|---|---|---|---|---|---|
| Due to bank improvements, the service point requires less time. | 0.0% | 3(1.8%) | 35(20.6%) | 20(11.8%) | 112(65.9%) |
| The use of innovative technologies encourages a helpful and courteous personnel, which results in client happiness. | 0.0% | 3(1.8%) | 5(2.9%) | 100(58.8%) | 62(36.5%) |
| The bank is open throughout the day to effectively service its customers. | 0.0% | 0.0% | 2(1.2%) | 74(43.5%) | 94(55.3%) |
| The organizational structure of the business promotes operational process freedom, which boosts profitability. | 0.0% | 4(2.4%) | 0.0% | 80(47.1%) | 86(50.6%) |
| The innovations guarantee the excellent quality of the services provided to consumers. | 0.0% | 2(1.2% | 1(0.6%) | 72(42.4%) | 95(55.9%) |
| Innovation raises the organization's overall profitability and accelerates the rise of annual sales revenue. | 0.0% | 0.0% | 19(11.2%) | 84(49.4%) | 67(39.4%) |

***Source; Field Data 2022***

As the findings in Table 4.12 illustrated, most of the respondents (77.7%) generally agreed with the opinion that due to bank improvements, the service point requires less time, 20.6% neutral with the opinion while only 1.8% were in disagreement to the statement. The outcome of the study (95.3%) also revealed in general that the use of innovative technologies encourages a helpful and courteous personnel, which results in client happiness, 2.9% were neutral while 1.8% were in disagreement with statement. Additionally, most of the respondents (98.8%) generally agreed that innovation in products boosts employee morale inside a firm while 1.2% were neutral to the opinion. Further, most of the respondents (98.2%) agreed that the innovations guarantee the excellent quality of the services provided to consumers, while 12% were in disagreement while 0.6% was neutral. Lastly, there was general agreement by most of the respondents 88.8% that innovation raises the organization's overall profitability and accelerates the rise of annual sales revenue while 11.2 were neutral to the same opinion. This is in accordance to Cumming (2016) when new processes are introduced there is assured quality on the products. This is implicated by suppliers who are consistent in supply new products using new improved procedures at the long run earns more thus reduces their expenses. This may not be realized by customers at first but suppliers incur low expenses when supplying their products.

Respondents also shared their thoughts on other process innovation strategy techniques that help boost their bank's bottom line. Respondents believed that their banks' financial results would improve if they focused on differentiating themselves, cutting costs, and adopting new technologies.

### Technology Innovation

The study examined how performance in tier one commercial banks is affected by technology innovation strategies in Kenya. The responses were as shown in Table 4.13.

**Table 4. 13:**

***Effect of Technology Innovation Practices on Bank Performance***

| Opinion | SD | D | N | A | SA |
|---|---|---|---|---|---|
| My bank uses electronic funds transfer innovations | 0.0% | 4(2.4%) | 34(20.0%) | 62(36.5%) | 70(41.2%) |
| Adoption of ATM innovation has reduced operational costs for the bank | 1(0.6%) | 0.0% | 5(2.9%) | 97(57.1%) | 67(39.4%) |
| Point of Sale innovations have enhanced operational efficiency | 0.0% | 0.0% | 0.0% | 50(29.4%) | 120(70.6%) |
| Debit cards adoption has reduced number of clients visiting banking halls for financial transaction | 0.0% | 2(1.2%) | 20(11.8%) | 81(47.6%) | 67(39.4%) |
| Branchless banking has enhanced operational effectiveness of the bank | 0.0% | 0.0% | 22(12.9%) | 86(50.6%) | 62(36.5%) |

***Source; Field Data 2022***

As the findings in Table 4.13 illustrated, most of the respondents (77.7%) generally agreed with the opinion that their bank uses electronic funds transfer innovations, 20.0 % were neutral with the opinion while only 2.4% were in disagreement to the statement. The outcome of the study (96.5%) also revealed in general that adoption of ATM innovation has reduced operational costs for the bank, 2.9% were neutral while 0.6% were in disagreement with the statement. Additionally, most of the respondents (100.0%) generally agreed that point of sale innovations have enhanced operational efficiency neither of the respondents were neutral or in disagreement to the opinion. Further, most of the respondents (87.0%) agreed that debit cards adoption has reduced number of clients visiting banking halls for financial transaction, while 11.8% were neutral while 1.2% disagreed with the statement. Lastly, there was general agreement by most of the respondents 87.1% that branchless banking has enhanced operational effectiveness of the bank while 12.9% were neutral to the same opinion. The results corroborate the claims of Han et al. (2015), who contend that organizations which extensively invest in innovative technological ideas undergo transformations which lead to improved business operations. Participants also shared their thoughts on other digital innovation strategy approaches that could boost their banks' bottom lines. Respondents believed that using new technologies like application programming interfaces (APIs), cloud computing, video collaboration, and P2P payments will boost their banks' bottom lines.

### Performance of Commercial Banks

The study sought to assess how tier one commercial banks in Kenya perform. The Results shown in Table 4.14.

**Table 4. 14:**

***Effect of Technology Innovation Practices on Bank Performance***

| Opinion | SD | D | N | A | SA |
|---|---|---|---|---|---|
| The financial performance of Kenya's commercial banks has greatly improved because to the implementation of innovation methods. | 0.0% | 6(3.5) | 4(2.4%) | 70(41.2%) | 90(52.9%) |
| The financial performance of commercial banks in K has greatly benefited by the adoption of human resource initiatives. | 0.0% | 0.0% | 2(1.2%) | 57(33.5%) | 111(65.3%) |
| The use of pricing techniques has made a substantial positive impact on Kenya's commercial banks' financial performance. | 0.0% | 17(10.0%) | 5(2.9%) | 49(28.8%) | 99(58.2%) |
| Comparing the bank to its competitors in the same industry, it has a larger market share. | 0.0% | 5(2.9%) | 54(31.8%) | 59(34.7%) | 52(30.6%) |
| Our revenue performance has improved over the course of the most recent financial year, reaching a total of more than 1 billion marks. | 6(3.5%) | 0.0% | 19(11.2%) | 85(50.0%) | 60(35.5%) |
| In the most recent fiscal year, our sales performance climbed to a record of more than 1 billion marks. | 0.0% | 0.0% | 3(1.8%) | 63(37.1%) | 104(61.2%) |
| In the most recent fiscal year, our market share increased by more than 20%. | 4(2.4%) | 13(7.6%) | 4(2.4%) | 109(64.1%) | 40(23.5%) |

***Source; Field Data 2021***

In light of the results displayed in Table 4.14, most of the respondents 94.1% agreed generally that the financial performance of Kenya's commercial banks has greatly improved because to the implementation of innovation methods, 3.5% were in disagreement with the statement while only 2.4% were neutral to the statement. The study also found that, most of the respondents 98.8% were in agreement that the financial performance of commercial banks in has greatly benefited by the adoption of human resource initiatives while only 1.2% were neutral with the statement. In addition, most of the respondents 87.0% agreed that the use of pricing techniques has made a substantial positive impact on Kenya's commercial banks' financial performance, only 9.9% were neutral to the opinion. It was further revealed that most of the respondents 65.3% agreed that comparing the bank to its competitors in the same industry, it has a larger market share, only 31.8% of the respondents were neutral to the opinion while only 2.9% were in disagreement. Most of the respondents, 85.5% of the agreed that their revenue performance has improved over the course of the most recent financial year, reaching a total of more than 1 billion marks, 11.2% of the respondents were neutral while only 3.5% of the respondents disagreed with the opinion. Additionally, most respondents 98.3% agreed that in the most recent fiscal year, their sales performance climbed to a record of more than 1 billion marks while only 1.8 of the respondents disagreed with the statement. Lastly, the most of the respondents (87.6%) agreed with the opinion that in the most recent fiscal year, our market share increased by more than 20%, 10.0% of the respondents disagreed with the opinion while 2.4 were neutral with the opinion.

## 4.7 Inferential Statistics

Both the Pearson correlation analysis and the regression analysis were conducted in order to get information on how dependent and dependent variables relate and also to acquire their association.

### Pearson Moment Correlation

The purpose of this was to test the connection between the different variables. Two variables' degree of relationship is quantified by a Pearson moment correlation, which takes on a value between -1 and +1. If the correlation coefficient is positive, then there is a positive relationship, and if it is negative, then there is a negative relationship. an inverse or negative relationship. Results shown in Table 4.15

**Table 4. 15:**

***Correlation Coefficients***

| | | MI | PI | PIn | TI | PCB |
|---|---|---|---|---|---|---|
| **MI** | Pearson Correlation | 1 | | | | |
| | Sig. (2-tailed) | . | | | | |
| **PI** | Pearson Correlation | .710** | 1 | | | |
| | Sig. (2-tailed) | .000 | . | | | |
| **PIn** | Pearson Correlation | .774** | .736** | 1 | | |
| | Sig. (2-tailed) | .000 | .000 | . | | |
| **TI** | Pearson Correlation | .796** | .639** | .740** | 1 | |
| | Sig. (2-tailed) | .000 | .000 | .000 | | |
| **PCB** | Pearson Correlation | -.331** | -.462** | -.329** | -.441** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | . |

***Correlation is significant at the 0.01 level (2-tailed).*
*Key: MI = Market innovation; PI= Product innovation; PIn = Process innovation, TI= Technology Innovation; PCB = Performance of tier one commercial banks*

The correlation analysis results between the performance of tier one commercial banks in Kenya and market innovation strategies shows a positive coefficient 0.710, with p-value of

0.000. It indicates that the result is significant at $\alpha$ =5% and that if the market innovation strategies increase it will have a positive impact on the performance of tier one commercial banks. The findings conform to Narver and Slater (2018) who stated that skillful market champions are happen with customers buying habits and are comfortable with their different tastes. The correlation results between product innovation strategies and performance of tier one commercial banks in Kenya also indicates the same type of result where the correlation coefficient is 0.774 and a p-value of 0.000 which is significant at $\alpha$ = 5%. The findings correlate to Meyer (2016) who asserts that primary innovate involves improving and creating of new markets

Tier one commercial banks in Kenya's performance is positively correlated with the use of process innovation methods (r=0.796, p=0.000). These results are in agreement with those of Johne and Storey (2016), who stressed the significance of process innovation in the supply of the core product and in the support. Quality should have maintained in both the product and offers provided. Services provided also should be offered with a lot of care since they involve personal interactions which can kill the market or make it thrive. Further, the result shows that there is a negative association between technology innovation strategies and performance of tier one commercial banks in Kenya where the correlation coefficient is 0.331, with a p-value of 0.000. However, these findings contradict those of Essinger (2017), who argued that a simulated division of labor among bank branches would have a positive effect on production. In addition, it saves clients time because they don't have to go so far to their local bank, giving them more of that precious commodity to put toward other fruitful endeavors. Nevertheless, the positive correlations show that the performance of Kenya's top commercial banks improves with the implementation of the aforementioned measures.

Overall, the success of Kenya's top commercial banks was most impacted by process innovation strategies, next those focused on product or market innovation, and finally those focused on technology innovation. As p-values for all variable were under 0.05, it was determined that they were all statistically significant.

**Multiple Regression Analysis**

The purpose of the regression study was to determine if there was a connection between strategic innovation and the performance of Kenya's top commercial banks. The data are as presented in Tables 4.16, 4.16, and 4.17.

**Table 4. 16:**
***Model Summary***

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .856[a] | .733 | .727 | 1.35307 |

*a. Predictors: (Constant), Market innovation; Product innovation; Process innovation, Technology Innovation.*

Using an adjusted R squared = 0.727, the findings demonstrate that the 4 specific ffactors significantly predicted the performance of Kenya's top commercial banks. Consequently, the model accounts for 72.7% of the observed variation in the efficiency ratios of Kenya's top commercial banks. Other factors that were not investigated in this research account for the remaining 27.3%.

**Table 4. 17:**

***ANOVA Results***

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 831.315 | 4 | 207.829 | 113.518 | 2.59E-46 |
| | Residual | 302.083 | 165 | 1.831 | | |
| | Total | 1133.398 | 169 | | | |

*a. Dependent Variable: Performance of Commercial Banks*
*b. Predictors: (Constant), Market innovation; Product innovation; Process innovation, Technology Innovation.*

The computed F-value was 113.518, and the p-value was 2.59E-46, according to the ANOVA Table. Regression analysis indicated that market, product, process, and technological innovation strategies all had a substantial effect on the success of Kenya's top commercial banks, with an associated p-value less than 0.05 and an F-calculated more than F-critical (2.4264).

**Table 4. 18:**
***Regression Coefficients***

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -.104 | 1.329 | | -.078 | .938 |
| | Market innovation | .190 | .049 | .247 | 3.880 | .002 |
| | Product innovation | .320 | .085 | .266 | 3.784 | .000 |
| | Process innovation | .264 | .035 | .477 | 7.545 | .000 |
| | Technology innovation | .076 | .044 | .081 | 1.722 | .087 |

***a. Dependent Variable: Performance of Tier one Commercial Banks in Kenya***

The regression model is shown in Table 4.18; when all four variables (market, product, process, and technology) are set to zero, the expected rate of performance for Kenya's top commercial banks is -0.104. This is not statistically significant (p=0.9380.05). If all other factors are kept the same, the Performance of Tier One Commercial Banks in Kenya increases by 0.190 points when there is an increase in market innovation tactics. Considering that 0.0000.05, it's clear that the variable is significant. This agrees with the findings of Huley and Hult (2018), who posited that the key to making a profit in many industries is the capacity to sell the same fundamental commodity to different clients for varying prices, such as airline or train seats. Product differentiation is valued by savvy market leaders since it essentially represents a new product to them.

In addition, it was discovered that the performance score of Kenya's top commercial banks would rise by 0.320 points if product innovation methods were to increase, assuming no other changes were made. Since 0.000 is less than 0.05, we can conclude that this variable is statistically significant. This is consistent with the findings of Storey and Easingwood (2016), who argue that developing and evaluating new products allows businesses to expand their customer base and, in turn, their bottom line.

Another key finding is that top Kenyan commercial banks' performance improves by 0.264 points for every unit of process innovation methods implemented. Because the p-value for process innovation techniques is so low (0.000<.05), they are very significant. This outcome is consistent with what Rose (2017) said: that creating and maintaining a method is preferable to using the industry's existing tools and processes. The process innovators care about the way customers use the system to do their regular tasks since they know this will lead to improvements and increased output.

It was determined that an increase of one point in the scores of technology innovation initiatives would to a 0.076 increase in the scores of performance of tier one commercial banks in Kenya. The variable was insignificant as the p-value=0.087>0.05. These results do not conform to Essinger (2017) who stated customers value internet banking because it is convenient and not rigid and each and every customer is in control of his/her account.

Top Kenyan banks benefited the most from product innovation strategies, followed by process innovation, then market innovation, and finally technological innovation strategies. Because their p-values were under 0.05, all of the variables except those related to technological innovation techniques were considered to be statistically significant.

### 4.4 Hypotheses Testing Results

The researcher acquired statistical significance through testing the hypothesis of the variables. Test-of-significance was performed to avoid vagueness and strictly confirm the null hypothesis using the sample results from the targeted population. Two-tailed t-test statistic was used, the corresponding *p*-values at 1%, 5% and 10% levels were recorded.

The main reason to adopt two-tailed test was because this study's hypothesis was composite. When the test results indicated that the probability of the alternative hypothesis was less than the predetermined alpha (significance value), the alternative hypothesis was rejected.

**(a) $H_{01}$: Market innovation strategies do not significantly influence the performance of tier one commercial banks in Kenya.**

Table 4.15 indicates correction results that shows importance levels of new market ideas in performance of tier one commercial banks in Kenya which had a 5% level of importance. This was according to the p-value similar to 0.000 coefficient equivalent. This investigation made the researcher dismiss the null hypothesis which had 95% confidence level. This was evident that performance in tier one commercial banks in Kenya is very much influenced by market innovation strategies.

**(b) $H_{02}$: Product innovation strategies do not significantly influence the performance of tier one commercial banks in Kenya.**

According to p-values, coefficient equivalent was 0.000, which translated to 5% growth This led to the dismissal of null hypothesis which had a 95% confidence level this showed that tier one commercial banks performance is highly effected by product innovation. These results are shown in table 4.15.

**(c) $H_{03}$: Process Innovation strategies do not significantly influence the performance of tier one commercial banks in Kenya.**

Process innovation in tier one commercial banks is influential in their performance. This is according to the correction results portrayed in Table 4.15 which was according to p-values which resulted to coefficient that totaled to 0.000. This enabled the researched make conclusions of doing away the null hypothesis which had 95% confidence level. Doing away with the null hypothesis made the researcher conclude that process innovation is highly influential in performance of tier one commercial banks in Kenya.

**(d) $H_{04}$: Technology Innovation strategies do not significantly influence the performance of tier one commercial banks in Kenya.**

Finding in Table 4.15 portray correlation analysis results which indicate how technology innovation relate positively in tier one banks performance in Kenya which is at 5%. This was because the P-values resulted to 0.27. From these results, null hypotheses could not be assumed which was at 95% thus a conclusion that performance in tier commercial banks in Kenya is not affected or is less affected by introduction of new technology

# CHAPTER FIVE

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Introduction

This chapter highlights summary of the findings conclusions and recommendations.

## 5.2 Summary of Findings

The study sought to establish the effect of market innovation strategies on the performance of tier one commercial banks in Kenya. It was evident that tier one commercial banks performance was boosted a lot by women. The study also established that youth banking; and customer surveys improved the financial performance tier one commercial banks to a great extent. Further, club and kids banking; and research and development improved the financial performance tier one commercial banks to a moderate extent. The correlation analysis results between the performance of tier one commercial banks and market innovation strategies shows a positive coefficient 0.710, with p-value of 0.000. In addition, results from the regression test proves that, when the variables remain the same, performance in tier one banks increase by 0.109 due to new market ideas implemented. The variable was found to be significant since $0.000<0.05$.

The research found that agent banking; and personal unsecured loans improve the financial performance of the banks to a great extent. Further, mobile loans; and debit cards were found to improve the financial performance of their banks to a moderate extent. In addition, the commercial banks performance of the banks is improved in a lower degree by credit cards. The correlation results show that there was a positive connection between strategies of innovation and achievement of tier one commercial banks in Kenya as the correlation coefficient was 0.774 and a p- value of 0.000 significant at $\alpha = 5\%$.

Furthermore, the study found out that there was a 0.320 increase in the performance of tier one commercial banks in Kenya as a result of increased of strategies used in product innovation if all other variables remained unchanged. The variable was notable given that 0.000 is less than 0.05.

In addition, credit cards brought gains in banks performance which resulted to 0.774 correlation coefficient and 0.000 p-value and this was a significant at $\alpha = 5\%$. This is an implication that product innovation and performance of tier one commercial banks in Kenya have a positive significance. Laos it was evident that when new products are introduced, performance score of tier one banks rose up to 0.320. This occurred when all the variable used in the study remained the same. The variable was significant since 0.000 is less than 0.05.

The research aimed at examining performance in tier one commercial banks in Kenya is affected by introduction of new strategies in process innovation. The research discovered that the banks' financial performance had been greatly enhanced by the introduction of electronic funds transfer, enhanced queuing systems, and a greater number and more evenly distributed network of automated teller machines. The research also found that digitalization of all retail products; automation; and cheque processing had improved the financial performance of the banks to a moderate extent. From the results implemented new ideas in processing positively affected tier one banks performance which added up to a correlation coefficient of 0.796, with a p-value of 0.000. From the regression results, it was found that when a unit of process innovation strategies increase, score of performance also increased to 0.264 resulting to, $p\text{-value}=0.000<0.05$.

The study sought to assess the effect of technology innovation strategies on the performance of tier one commercial banks in Kenya. The research found that debit cards adoption has reduced number of clients visiting banking halls for financial transaction; the bank uses electronic funds transfer innovations; and adoption of ATM innovation has reduced operational costs for the bank to a great extent. Further, the study found that branchless banking has enhanced operational effectiveness of the bank; and point of sale innovations has enhanced operational efficiency to a moderate extent. The investigation found that new technology introduced in tier one category of commercial banks in Kenya rendered them have 0.331 correlation performance with a p-value of 0.000. and this showed there was a negative significance. Value increase in technology innovation made the tier one commercial banks in Kenya increase their performance score to 0.076. The variable was although insignificant as the p-value=0.087>0.05.

### 5.3 Conclusions

According to the study's findings, market innovation methods significantly and favorably affect the performance of Kenya's tier one commercial banks. The study concluded that there is improved service delivery when banks change their structures on how they conduct their operations and their makes them competitive bring more gains and also increases the number of their customers. Good customer relationship yields more profits to a bank and improves its brand in the market. When the banks maintain a good public image, employees will be motivated and this reduce massive recruitment due to resignation and banks stability is assured thus attracting more clients. From the study results, it was clear that new procedures in product improved affect tier one commercial banks performance in a positive way and also when there is continuity in introducing new improved products, services and technology performance also improves.

The research also found that top Kenyan commercial banks benefited significantly from adopting process innovation initiatives. Commercial banks were shown to be able to reinvent their product and service offerings thanks to their management of the innovation process. In addition, they were able to anticipate and gratify their customers' changing financial requirements, resulting in increased business success. By coordinating their approaches to innovation, the banks were better able to adapt to the shifting dynamics of the financial markets and the needs of their customers.

The research concluded that technology innovation strategies had an insignificant effect on the performance of tier one commercial banks in Kenya. Despite the negative results, the study concluded that technology innovation strategies are advantageous because of the 24-hour banking services, the company receives a competitive edge and is more likely to retain customers.

Additionally, it was determined that time is saved by using technology innovation tactics effectively. Technology tactics used strongly improves technology innovation and saves time used in banks activities.

## 5.4 Recommendations

In order for a bank to remain competitive in today's world of intense competition and fast change, the commercial banks should develop new market ideas methods which improve their competition.  Among these tactics to be considered when introducing or changing policies in the banking sector. Other strategies should include use of agency banking to enhance outreach to those in areas that does not have physical branches. There is also need for tier one commercial banks to ensure that online banking platforms in addition to mobile money platforms should be enhanced. This will ensure a wider reach of clients, and thus enlarge their market share. In situations where the bank does not have mobile banking platforms, there is need for banks to partner with mobile telephony companies that offer the facility. This will ensure that customers access to deposits and withdrawals are made simpler and easier to access, and thus, enhance customer royalty that is essential for competitive advantage.

This research found a strong correlation between process innovation and the success of Kenya's top commercial banks, therefore the authors recommend that these institutions employ innovation strategies that boost their competitive position. To achieve this, businesses must make sure their procedures are developed to support their long-term aims. Employees and consumers must be included in the design and implementation of any new processes. A failure to incorporate workers in the innovation process might reduce the likelihood of its success and reduce the company's ability to compete. Organizational vision for the future competitiveness of banks should also inform process innovation.

For electronic banking to be successful in the banking industry, they should enlighten customers with relevant skills to make them aware of the electronic services that exist.

The findings also supported the view that the banks competitiveness has largely come from differentiation of products, the internal resources and qualified personnel. The leaders at the top should set aside budget allocation to enable employees attend trainings which equip them with skills and knowledge on strategy implementation and on how they can make better their brand. The researcher also in his recommendations, recommended that

Central Banks should ensure tier one banks are able to expand and grow thus reap benefits of new improvement made on the operations.

When tier one banks follow effectively rules and procedures by their regulators, they achieve profits from the new procedures devised, new commonalities introduced and the improved technology being used. Banks cannot perform well without set rules and policies, they should be put in place to enhance profitability.

Banks should also have a wide range of commodities, ensure the targeting market has enough knowledge of their products, keep improving the quality of their products and also introduce new and better services to remain relevant in the market and earn profits.

Improved systems in tier one banks brings about good products, better communication, issues are dealt with specifically as they arise, inclusive management support on all the new strategies

A commercial bank's market research department needs to be efficient in order to learn about the new goods introduced by competitors, as well as the pros and cons of these developments. With this, financial institutions will be able to innovate and keep pace with rivals.

### 5.5 Suggestions for Further Research

For the sake of comparison and generalizability, further research should be undertaken among all types of financial institutions, not just tier one commercial banks. Microfinance institutions, SACCOs, and microfinance institutions that accept deposits should all be among the financial institutions considered. This is due to variations in history, policy, and practice between commercial banks and other types of financial organizations. A study on the effects of technological innovation on Kenya's leading commercial banks is recommended. Research should also be conducted on the study of further strategic innovations.

## REFERENCES


Achilla, J. & Kemp, M. (2018). Service quality in the banking sector: the impact of technology on service delivery. *International Journal of Bank Marketing*, *17*(4), 182-91. https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.472.4144&rep=rep1&type=pdf

Muthinja, M. M., & Chipeta, C. (2018). What drives financial innovations in Kenya's commercial banks? An empirical study on firm and macro-level drivers of branchless banking. *Journal of African Business*, *19*(3), 385-408. https://doi.org/10.1080/15228916.2017.1405705.

Agboola, K. V. (2016). Bankruptcy codes and innovation. *Review of Financial Studies*, 22(1), 4949-4988. https://doi.org/10.1093/rfs/hhp019.

Aitikiya, K.A. (2015). An Empirical investigation of the level of users, acceptance of e-banking in Nigeria. *Journal of Internet Banking and Commerce, 15*(1), 8-20. http://eprints.covenantuniversity.edu.ng/id/eprint/83.

Anderson, V. (2016). *Beyond ontological blackness: An essay on African American religious and cultural criticism*. Bloomsbury Publishing.

Asikhia, O. U. (2015). SMEs' Wealth Creation Model of an Emerging Economy. *Eurasian Journal of Business and Economics*, *9* (17), 125-151. DOI: https://doi.org/10.17015/ejbe.2016.017.08

Bagozzi, R. P., & Yi, Y. (2018). On the use of structural equation models in experimental designs. *Journal of marketing Research*, *26*(3), 271-284. https://doi.org/10.1177/002224378902600302.

Balachandher, C. K., Adebiyi, A. A., Fatudimu, I.T. & Ekong, O.U. (2015). Framework for e-commerce implementation: Nigeria a case study. *Journal of Internet Banking and Commerce,* *13*(2), 8 -17. http://eprints.covenantuniversity.edu.ng/860/#.YRoJwGUza1s.

Batiz-Lazo, B. & Woldesenbet, K. (2016). The dynamics of product and process innovation in UK banking. *International Journal of Financial Services Management*, *1*(4), 400-421. DOI:10.1504/IJFSM.2006.010120.

Bresler, L. & Stake, R. E. (2017). *Qualitative research methodology in music education. In Critical Essays in Music Education* (pp. 113-128). Routledge.

Bryman, A. & Bell, E. (2011). *Business Research Methods.* (3rd ed). Oxford University Press

Bwaley, K. K. (2013). *The Relationship between Innovation strategies and Competitive Advantage among Banks Listed in the Nairobi Stock Exchange.* (Unpublished MBA Thesis. University of Nairobi).

Carneiro, L. M., Almeida, R., Azevedo, A. L., Kankaanpaa, T. & Shamsuzzoha, A. H. M. (2017). *An innovative framework supporting SME networks for complex product manufacturing. In Working Conference on Virtual Enterprises* (pp. 204-211). Berlin, Heidelberg: Springer. https://link.springer.com/chapter/10.1007/978-3-642-15961-9_24

Central Bank of Kenya (CBK). (2016). *Quarterly report on Development in the Kenyan Banking Sector* for the period ended 30th June 2016. www.centrabank.go.ke/downloads

Central Bank of Kenya (CBK). (2018). *Directory of Commercial Banks Finance*. *http://www.centralbank.go.ke/downloads/bsd/Commercial%20Banks%20Directrory%20-%2031%20December%202018.pd*f.

Chorafas, D. (2017). *Household Finance: Adrift in a Sea of Red Ink*. Palgrave Macmillan

Cicea, C. & Hincu, D. (2015). Performance evaluation methods in commercial banks and associated risks for managing assets and liabilities. *Communications of the IBIMA*, 7(1), 97-101. https://icbmem.org/wp-content/uploads/2018/12/ICBMEM-2017-FULL-PROCEEDINGS.pdf.

Collis, J. & Hussey, R. (2017). *Cost and management accounting*. Macmillan International Higher Education.

Cumming, J. S. (2016). *U.S. Patent No. 9,295,546*. Patent and Trademark Office United States.

Damanpour, F. (2015). Innovation type, radicalness, and the adoption process. *Communication research*, 15(5), 545-567. https://scholar.google.com/citations?user=D24hgHkAAAAJ&hl=en.

Dardac, N. & Barbu, T. (2015). *Money, banking and monetary policy*. Times Press.

Davis, F. D. (2017). *A technology acceptance model for empirically testing new end-user information systems: Theory and results.* [Doctoral dissertation, Massachusetts Institute of Technology]. http://dspace.mit.edu/bitstream/1721.1/15192/2/14927137-MIT.pdf.

Dempsey, L. F. (2017). *The validity of the joint story retell as a measure of young children's comprehension of familiar stories.* [Master’s Thesis, Faculty of Graduate Studies, University of Western Ontario]. https://www.collectionscanada.gc.ca/obj/s4/f2/dsk1/tape9/PQDD_0001/MQ42138.pdf.

Djellal, F. & Gallouj, F. (2014). Services, innovation and performance: general presentation. *Journal of Innovation Economics Management*, *51*, 5-15. https://halshs.archives-ouvertes.fr/halshs-01133785.

Essinger, D.J. (2017). Bankruptcy law and entrepreneurship. *American Law and Economics Review 10*(2), 303-350. https://doi.org/10.1093/aler/ahn008.

Fagerberg, J., Mowery, D.C. & Nelson, R.R. (2014). *The Oxford Handbook of Innovation*. Oxford University Press.

Ferreira, D., Manso, G. & Silva, A. C. (2017). *Incentives to innovate and the decision to go public or private*. *Review of Financial Studies* 27(7750), 1-72. DOI:10.1093/rfs/hhs070

Fifield, P. (2014). *What is marketing strategy? in Marketing Strategy Masterclass*. Routledge.

Fletcher, A. J. (2017). Applying critical realism in qualitative research: methodology meets method. *International journal of social research methodology*, 20(2), 181-194. https://doi.org/10.1080/13645579.2016.1144401.

Foxall, G. (2017). *Advanced introduction to consumer behavior analysis*. Edward Elgar Publishing.

Francesca, A. & Claeys, P. (2017). *Innovation and performance of European banks adopting Internet. (Working Paper Series, WP)*, https://www.cass.city.ac.uk/__data/assets/pdf_file/0011/77816/CBR-WP04-10.pdf.

Furst, K., Lang, W. W. & Nolle, D. E. (2014). Internet banking. *Journal of Financial Services Research*, 22(2), 95-117. DOI: 10.1023/a: 1016012703620.

Galbraith, C. & Schendel, D. (2015). An empirical analysis of strategy types. *Strategic management journal*, 4(2), 153-173. https://onlinelibrary.wiley.com/abs/10.10doi/02/smj.4250040206.

Gallouj, F. (2015). *Interactional innovation: a neo-Schumpeterian model.* Routledge.

Gatignon, H. & Xuereb, J. M. (2017). Strategic orientation of the firm and new product performance. *Journal of marketing research*, 34(1), 77-90. http://dx.doi.org/10.2307/3152066.

Gaynor, M. (2014). Competition and quality in health care markets. *Foundations and Trends® in Microeconomics*, *2*(6), 441-508. DOI: 10.1561/0700000024.

Ge, M. & Helfert, M. A. K. U. S. (2016, April 5-14). *Big data quality-towards an explanation model in a smart city context.* In *proceedings of 21st International*

*Conference on Information Quality, Ciudad Real, Spain*. Ciudad Real: ICIQ. https://is.muni.cz/repo/1377089/ICIQ2016_Helfert_Ge.pdf.

Goh, S. C. (2015). Managing effective knowledge transfer: an integrative framework and some practice implications. *Journal of knowledge management*, 2(1), 31-45. DOI: 10.1108/13673270210417664.

Grant, J. L. (Ed.). (2015). seeking talent for creative cities: The social dynamics of innovation. *Economic geography*. *91*(2) 227-228. https://www.tandfonline.com/doi/full/10.1111/ecge.12084.

Grupp, H. (Ed.). (2014). *Dynamics of science-based innovation.* Springer Science & Business Media.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. & Tatham, R. L. (2016). *Multivariate data analysis*. Prentice hall.

Hamel, G. & Prahalad, C. K. (2018, July - August). Strategy intent. *Harvard Business Review*, https://hbr.org/2005/07/strategic-intent.

Han, J. K., Kim, N., & Srivastava, R. K. (2015). Market orientation and organizational performance: is innovation a missing link. *Journal of marketing*, 62(4), 30-45. https://ink.library.smu.edu.sg/lkcsb_research.

Hernando, I., & Nieto, M. J. (2016). Is the Internet delivery channel changing banks' performance? The case of Spanish banks. *Journal of Banking & Finance*, 31(4), 1083-1099. https://doi.org/10.1016/j.jbankfin.2006.10.011.

Hicks, D. & Niehans J. (2016). Financial Innovations, Multinational banking and monetary policy. J*ournal of Banking and Finance*, 2(20), 537- 551. https://ideas.repec.org/a/eee/jbfina/v7y2016i4p537-551.html.

Hitt, M.A., Ireland, R.D., Camp, S.M. & Sexton, D.L. (2016). Guest editors' introduction to the special issue strategic entrepreneurship: entrepreneurial strategies for wealth creation. *Strategic Management Journal*, 22(1), 479–491. https://doi.org/10.1002/smj.196.

Hult, G. T. M., Hurley, R. F. & Knight, G. A. (2014). Innovativeness: Its antecedents and impact on business performance. *Industrial marketing management*, 33(5), 429-438. http://dx.doi.org/10.1016/j.indmarman.2003.08.015.

Hurley, R. F. & Hult, G. T. M. (2014). Innovation, market orientation, and organizational learning: an integration and empirical examination. *Journal of marketing*, 62(3), 42-54. https://doi.org/10.2307/1251742.

Ingraham, P. (2015). Revisiting the concept of sustainable competitive advantage: Perceptions of managers in Malaysian MNC. *International Journal of Business and Accountancy*, 1(1), 63-75. https://www.researchgate.net/publication/285860531.

Jaworski, B. J. & Kohli, A. K. (2018). Market orientation: antecedents and consequences. *Journal of marketing*, 57(3), 53-70. https://doi.org/10.2307/1251854.

Jayawardhena, C. & Foley, P. (2016). Changes in the banking sector–the case of Internet banking in the UK. *Internet research*, 10(1), 19-31. DOI: 10.1108/10662240010312048.

Johne, A. & Storey, C. (2016). New service development: a review of the literature and annotated bibliography. *European journal of Marketing*, 2(1), 29-56. http://dx.doi.org/10.1108/03090569810204526.

Johnson, G., Scholes, K. & Whittington, R. (2015). *Exploring Corporate Strategy*, (7th ed). Prentice Hall.

Kagan, A., Acharya, R. N., Rao, L. S. & Kodepaka, V. (2015, July 24-27). *Does Internet banking affect the performance of community banks?* (No. 378-2016-21492). [Selected Paper], Arizona State University. https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.528.8859&rep=rep1&type=pdf.

Kago, J., Cadilhon, J. J., Maina, M. & Omore, A. O. (2018, August 9-14). *Influence of innovation platforms on information sharing and nurturing of smaller innovation platforms: A case study of the Tanzania Dairy Development Forum*. [Conference session] International Conference of Agricultural Economists (ICAE), Milan, Italy, Egerton, Kenya: Egerton University https://hdl.handle.net/10568/76539.

Kenya Bankers Association report (2021) *Micro, Small & Medium Enterprises (MSMEs) Survey Report.* https://www.kba.co.ke/wp-content/uploads/2022/05/MSMEs-Survey-Report.pdf.

Kim, W. C. & Maugborgne, R. (2015). *Strategic innovation, how to Create Uncontested Market Space and Make the Competition Irrelevant*. Harvard Business School Press.

Kimberly, J. R. (2016). Issues in the creation of organizations: Initiation, innovation, and institutionalization. *Academy of management Journal*, 22(3), 437-457. https://doi.org/10.5465/255737.

Kohli, A. K. & Jaworski, B. J. (2017). Market orientation: the construct, research propositions, and managerial implications. *Journal of marketing*, 54(2), 1-18. doi:10.2307/1251866.

Kotler, P. (2016). *Principles of Marketing*. Prentice Hall.

Kumar, R. (2019). *Research methodology: A step-by-step guide for beginners*. Sage Publications Limited.

Langfred, C. W. & Moye, N. (2014). Does conflict help or hinder creativity in teams? An examination of conflict's effects on creative processes and creative outcomes. *International Journal of business and Management*, 9(6), 30-52. DOI:10.5539/IJBM.V9N6P30.

Lawrence, Z.B. (2015). A Study of Challenges Facing the Implementation of Differentiation Strategy in the Operations of the Mumias Sugar Company Limited. (Unpublished MBA thesis), University of Nairobi.

Ledford, J. R. & Gast, D. L. (2018). *Single case research methodology: Applications in special education and behavioral sciences*. Routledge.

Leow, J.B. (2017). *Gaining and sustaining competitive advantage* (2nd ed). Prentice hall.

Li, H. & Atuagene-Gima, K. (2016). Product innovation strategy and the performance of new technology ventures in China. *Academy of Management Journal*, 44(6), 1123-

Longstaff, F. A. & Rajan, A. (2018). An empirical analysis of the pricing of collateralized debt obligations. *The Journal of Finance*, 63(2), 529-563. https://doi.org/10.1111/j.1540-6261.2008.01330.x.

Lukas, B. A. & Ferrell, O. C. (2015). The effect of market orientation on product innovation. *Journal of the academy of marketing science*, 28(2), 239-247. https://books.google.co.ke/books?id=XYMIEAAAQBAJ&pg=PA35&lpg=PA35&dq.

Malhotra, P. & Singh, B. (2015). An analysis of Internet banking offerings and its determinants in India. *Internet Research: Electronic Networking Applications and Policy*, 20(1), 87-106. DOI:10.1108/10662241011020851.

Menon, A. H. & Varadarajan, W. O. (2017). Market orientation: A meta-analytic review and assessment of its antecedents and impact on performance. *Journal of Marketing*, 69(1), 24-41. http://www.jstor.org/stable/30162043.

Mertens, H. (2015). Professionalisation and innovation. *European journal of teacher education*, 17(1-2), 31-33. https://doi.org/10.1080/0261976940170106.

Meyer, C. (2016). *Relentless growth: how Silicon Valley innovation strategies can work in your business*. Simon and Schuster.

Chien, F., Pantamee, A. A., Hussain, M. S., Chupradit, S., Nawaz, M. A., & Mohsin, M. (2021). Nexus between financial innovation and bankruptcy: evidence from information, communication and technology (ICT) sector. *The Singapore*

*Economic Review*,28(46) 1-22. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8324445/

Misati, R. N., Njoroge, L., Kamau, A., & Ouma, S. (2017). Financial innovation and monetary policy transmission in Kenya. *International Research Journal of Finance and Economics*, *50*(1), 123-136. https://strategicjournals.com/index.php/journal/article/view/838.

Mitchell, F. (2017). *Relationship between financial innovations and performance of commercial banks*. [Unpublished MBA Thesis], University of Nairobi.

Moynihan, M. H. (2015). Financial innovation: The last twenty years and the next. *Journal of Financial and Quantitative Analysis*, 21(1), 459-471. DOI: https://doi.org/10.2307/2330693.

Mugo, S. N. (2015). *Innovations and performance of Kenya's wine industry*. [Doctoral dissertation, University of Nairobi]. http://erepository.uonbi.ac.ke/bitstream/handle/11295/93838/.

Muia, G. R. (2018). *The Relationship between Financial Innovation and Financial Performance of Commercial Banks in Kenya*. [Unpublished MBA Thesis], University of Nairobi.

Muthoni, M. G. (2018). *The effect of financial innovation of financial performance of insurance companies in Kenya*. [Unpublished MBA Thesis]. University of Nairobi.

Mwangi, S.A. (2017). *Strategic Management in Global Industries*. [Unpublished MBA Thesis], University of Nairobi.

Mwania, M. & Muganda, N. (2017). *An investigation on the relationship between information technology (IT) conceptualization and bank performance*. https://scholar.google.com/citations?user=Ez2XXaoAAAAJ&hl=en.

Nader, H. (2015). Entrepreneurship, Technology & Innovation. *Academy of Management Journal*, 39(2), 255-291. https://books.google.co.ke/books?id=_zj8DwAAQBAJ&pg=PA6&lpg=PA6&dq.

Narver, J.C. & Slater, S.F. (2018). The effect of a market orientation on business profitability. *Journal of Marketing*, 54(4), 20-34. https://doi.org/10.2307/1251757.

Ngari, J. M. & Muiruri, J. K. (2014). Effects of financial innovation on the financial performance of commercial banks in Kenya, *International Journal of Humanities & Social Sciences,* 4(7), 10- 13 *http://www.ijhssnet.com/journals/Vol_4_No_7_May_2014/7.pdf.*

Oluoch. K. (2013). *The Impact of Mobile and Internet Banking on Performance of Financial Institutions in Kenya*. [Unpublished MBA Thesis], University of Nairobi.

Ongonga, K. & Ochieng, B. (2013). Effect of Innovation Strategy on performance of Commercial Banks in Kenya. *International Journal of Social Sciences and Entrepreneurship*, *1*(3), 158-170. https://stratfordjournals.org/journals/index.php/journal-of-entrepreneurship-proj/article/view/247.

Pasha, D, (2015). *Relationship between financial innovation and financial performance of commercial in Kenya*. [Unpublished MBA Thesis], Kenyatta University

Pedersen, K., Leif, S., Methlie & Thorbjornsen, B. (2015). Analyzing the factors that influence the adoption of internet banking in Mauritius. *World Journal of Science Technology and Sustainable Development* *9*(3).204-234. DOI: 10.1108/20425941211250552

Pooja, M. & Balwinder, S. (2017). The impact of internet banking on bank performance and risk: The Indian experience. *Eurasian Journal of Business and Economics, 2*(4), 43-62. https://ejbe.org/EJBE2009Vol02No04p43MALHOTRA-SINGH.pdf.

Porter, M. E. (1991). Towards a dynamic theory of strategy. *Strategic management journal*, 12(2), 95-117. DOI: 10.12691/jbms-3-4-2.

Rakesh, K. J. (2014). *The Relationship between the Level of Technological Innovations and Financial Performance of Commercial Banks in Kenya*. [Unpublished MBA Thesis], University of Nairobi.

Roberts, P. W. & Amit, R. (2018). The Dynamics of Innovative Activity and Competitive Advantage: The case of Australian retail banking, 2016 to 1995. *Organization Science*, 14(2), 107-122. https://ideas.repec.org/a/inm/ororsc/v14y2003i2p107-122.html.

Rogers, E. M. (1962). *Diffusion of Innovations.* Simon and Schuster.

Rose, M. A. (2017). *The determinants of performance of pension funds in Kenya*. [ Doctoral dissertation, University of Nairobi]. http://erepository.uonbi.ac.ke/.

Saunders, M., Lewis, P. & Thornhill, A. (2016). *Research methods for business students* (7th ed). Pearson Education.

Simpson, V. (2014). Local government investment outreach and sustainability of microfinance institutions: A case study of BURO, Bangladesh. *The Journal of Social, Political, and Economic Studies,* 34(2), 318-346. https://www.researchgate.net/journal/The-Journal-of-social-political-and-economic-studies-0278-839X.

Soi, C. C. (2016). *Effect of Innovation Strategies on the performance of firms in the Telecommunication industry in Kenya* [Doctoral dissertation, United States International University-Africa]. http://erepo.usiu.ac.ke/bitstream/handle/11732/2802/.

Solans, L. A. (2018). *The role of innovation in building competitive advantage in horticultural processing and export companies in Nairobi Kenya*. [Doctoral dissertation, University of Nairobi]. http://erepository.uonbi.ac.ke/.

Storey, J.O. & Easingwood, A. (2016). Innovation in the Tea Industry: The case of Kericho tea, Kenya. *Global Journal of Management and Business Research*, 13(1), 52-68. https://www.semanticscholar.org/paper/.

Sullivan, K. (2016, August 28). *Corporate governance and innovation: Theory and evidence*. [Working Paper], University of Chicago. https://www.ineteconomics.org/uploads/papers/WP_62-Lazonick-IESAP.pdf.

Sundeep, A. (2015). Customer experience management: a critical review of an emerging idea. *Journal of Services marketing*, 24(3), 196-208. DOI:10.1108/08876041011040604.

Therkildsen, W. (2015). *Product, process and organizational innovation: drivers, complementarity and productivity effects.* [Working Paper] Series No. 2010–035, United Nations University. https://ideas.repec.org/p/unm/unumer/2010035.html

Thompson, M. E. (2015). *On Competition, Updated and Expanded Version*. Harvard Business School Press.

Tidd, L., Gunday, G. & Kilic, K. (2015). *Effects of Innovation Types on Firm Performance*. http://research.sabanciuniv.edu/13660/Gunday_et_al_Effectsof_Innovation_on_Firm_Performance.pdf

Troy, L. C., Szymanski, D. M. & Varadarajan, P. R. (2015). Generating new product ideas: An initial investigation of the role of market information and organizational characteristics. *Journal of the academy of Marketing Science*, 29(1), 89-96. https://link.springer.com/article/10.1177/0092070301291006

Tufano, K. R (2015). The state of global pension fund governance today: Board competency still a problem. *Pensions Management Institute Journal*, 76(3), 501 - 503. https://www.oecd-ilibrary.org/finance-and-investment/pension-fund-governance_241402256531.

Utterback, R., & Abernathy, L. (2018). *How commercial banks implement financial innovations- A case from retail operation of the Bank of China*. http://www.myacme.org/ACMEProceedings09/p22.pdf.

Uttley, J. (2019) Power Analysis, Sample Size, and Assessment of Statistical Assumptions—Improving the Evidential Value of Lighting Research, *LEUKOS*, *15*(2-3), 143-162, DOI: 10.1080/15502724.2018.1533851

Vakkuri, H.S. & Meklin, G.C. (2016). Competition and contestability in central and eastern European banking markets. *Manage. Finance,* 33(2), 195-209 https://ideas.repec.org/a/eme/mfipps/v33y2007i3p195-209.html.

Williams, H. (2017). Strategy Implementation: a role for the balanced scorecard? *Management Decision*, 44(10), 1441-1460. https://doi.org/10.1108/00251740610715740.

Zikmund, A. (2017). Technological innovations and banking in Ghana: an evaluation of customers' perceptions. *Academic leadership online journal*, 8*(*4), 205-211. https://hdl.handle.net/10520/EJC38611.

# APPENDICES

## Appendix 1: Introduction Letter

**Dear Respondent,**

**<u>RE: RESEARCH QUESTIONNAIRE.</u>**

I am a graduate student at Kenya Methodist University pursuing a Master's degree in Business Administration (MBA, Strategic Management Option) with a concentration in Strategic Management. In partial fulfillment of the requirements for the degree, I am conducting a research entitled **"*Effect of Strategic Innovation on Performance of Commercial Banks in Kenya with Reference to tier one Commercial Banks*".** This research forms part of the requirement for my degree qualification. I would appreciate if you would kindly take a little of your time to complete a questionnaire that I will provide. Any information provided from you is purely for academic purposes and all responses will be treated with utmost confidentiality. Your cooperation is most valued and appreciated.

I take this opportunity to thank you in advance for your quick return of your completed questionnaire.

Yours faithfully,

……………………………

Mburu Ng'ang'a Peter

## APPENDIX II: RESEARCH QUESTIONNAIRE

Please answer all questions as honestly as you can. The information you provide will be treated with a lot of confidentiality. It will only be used for academic purposes only.

## SECTION A: BACKGROUND INFORMATION

**1. Name of the organization (Optional)** …………………………………………………..

**2. Gender**

Male [ ] Female [ ]

**3.** Number of Years in Service**?**

0 – 5 [ ] 5 – 10 [ ]

10 – 15 [ ] 15 – 20 [ ] Over 20 years [ ]

**4.** Highest Education Level Attained

Primary Certificate [ ] Diploma [ ]

Undergraduate [ ] Postgraduate [ ]

**5. Number of years worked at the organization?**

Less than 5 year [ ] 5-10 year [ ]

10-15 year [ ] 15-20 year [ ]

More than 20 year [ ]

## SECTION B: STRATEGIC INNOVATION

### Part A: Market Innovation

5. Please use the point scale below to indicate your level of agreement by ticking each one of the given statements.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly disagree | Disagree | Neutral | Agree | Strongly Agree |

| | **Opinion** | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | One of the primary goals of our market innovation strategy is to improve the quality of our products and services. | | | | | |
| 2 | Our market innovation strategy includes a focus on customer happiness. | | | | | |
| 3 | Our market innovation strategy includes improving administrative processes. | | | | | |
| 4 | An essential component of a market innovation strategy is internal cooperation. | | | | | |
| 5 | Our business model and market innovation are best suited for pleasing our customers. | | | | | |

| | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 6 | Market innovation significantly improved organizational performance. | | | | | |
| 7 | Since the introduction of market innovation, the bank's competitiveness has significantly grown. | | | | | |

**Part B: Product Innovation**

6. Please use the point scale below to indicate your level of agreement by ticking each one of the given statements.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly disagree | Disagree | Neutral | Agree | Strongly agree |

| | **Opinion** | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | Both the supply of the primary product and the support component of any offer depend on product development. | | | | | |
| 2 | bold, imaginative, and early product development offer more incentives and performance improvement | | | | | |
| 3 | Innovation in products boosts employee morale inside a firm. | | | | | |
| 4 | Employee productivity in a firm rises thanks to product innovation | | | | | |
| 5 | Product innovation boosts rewards and recognition in the workplace. | | | | | |
| 6 | Product innovation improves employees' performance across the board for the company. | | | | | |
| 7 | Product innovation boosts the annual sales revenue growth rate. | | | | | |

**Part C: Process Innovation**

6. Please use the point scale below to indicate your level of agreement by ticking each one of the given statements.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly disagree | Disagree | Neutral | Agree | Strongly agree |

| | **Opinion** | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | Due to bank improvements, the service point requires less time. | | | | | |
| 2 | The use of innovative technologies encourages a helpful and courteous personnel, which results in client happiness. | | | | | |
| 3 | The bank is open throughout the day to effectively service its customers. | | | | | |
| 4 | The organizational structure of the business promotes operational process freedom, which boosts profitability. | | | | | |

| | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 5 | The innovations guarantee the excellent quality of the services provided to consumers. | | | | | |
| 6 | Innovation raises the organization's overall profitability and accelerates the rise of annual sales revenue. | | | | | |

**Part D: Technological Innovation**

7. Please use the point scale below to indicate your level of agreement by ticking each one of the given statements.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly disagree | Disagree | Neutral | Agree | Strongly agree |

| | **Opinion** | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | My bank uses electronic funds transfer innovations | | | | | |
| 2 | Adoption of ATM innovation has reduced operational costs for the bank | | | | | |
| 3 | Point of Sale innovations have enhanced operational efficiency | | | | | |
| 4 | Debit cards adoption has reduced number of clients visiting banking halls for financial transaction | | | | | |
| 5 | Branchless banking has enhanced operational effectiveness of the bank | | | | | |

**Part E: Performance of Commercial Bank**

7. Please use the point scale below to indicate your level of agreement by ticking each one of the given statements.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly disagree | Disagree | Neutral | Agree | Strongly agree |

| | **Opinion** | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | The financial performance of Kenya's commercial banks has greatly improved because to the implementation of innovation methods. | | | | | |
| 2 | The financial performance of commercial banks in K has greatly benefited by the adoption of human resource initiatives. | | | | | |
| 3 | The use of pricing techniques has made a substantial positive impact on Kenya's commercial banks' financial performance. | | | | | |
| 4 | Comparing the bank to its competitors in the same industry, it has a larger market share. | | | | | |
| 5 | Our revenue performance has improved over the course of the most recent financial year, reaching a total of more than 1 billion marks. | | | | | |
| 6 | In the most recent fiscal year, our sales performance climbed to a record of more than 1 billion marks. | | | | | |
| 7 | In the most recent fiscal year, our market share increased by more than 20%. | | | | | |

***Thank you for your assistance***

## APPENDIX II: KEMU AUTHORIZATION LETTER

**Kenya Methodist University**

P O Box 267 - 60200, Meru, Kenya, Tel: (+254-020) 2118423-7, 064-30301/31229 Email: info@kemu.ac.ke , Website: www.kemu.ac.ke

August 3, 2020

### TO WHOM IT MAY CONCERN

RE: MBURU NG`ANG`A PETER BUS-3-6435-2/2010

This is to confirm that the above named is a student in the Department of Business Administration, in this university, pursuing a Master of Business Administration.

As a requirement, the student is expected to undertake an independent primary research in their area of specialization.

The purpose of this letter is therefore; to introduce the student to you and request you to allow him undertake the research in your organization.

The student has been advised to ensure that all data and information from the organization is treated with utmost confidentiality and only used for academic purposes unless otherwise stated.

Any assistance accorded to him will be highly appreciated.

Yours faithfully,

03 AUG 2020

Prof. Peter Kihara, PhD.
Registrar -Academic Affairs

Nairobi Campus: Koinange Street, P.O. Box 45240-00100 Nairobi - Tel: +254-20-2118443/2248172/2247987/0725-751878 - Email: nairobicampus@kemu.ac.ke
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Mombasa Campus: Former Oshwal Academy, P.O. Box 09983, Mombasa. Tel: +254 - 041-2496845/8 - Email: mombasacampus@kemu.ac.ke

## APPENDIX III: NACOSTI RESEARCH PERMIT

REPUBLIC OF KENYA

**NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION**

Ref No: **108146**

Date of Issue: **25/August/2020**

**RESEARCH LICENSE**

**This is to Certify that Mr.. Peter Mburu of Kenya Methodist University, has been licensed to conduct research in Nairobi on the topic: EFFECTS OF STRATEGIC INNOVATION ON PERFORMANCE OF COMMERCIAL BANKS IN KENYA (A Survey of Tier I Commercial Banks in Nairobi County) for the period ending : 25/August/2021.**

License No: **NACOSTI/P/20/6274**

**108146**

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