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PRODUCT INNOVATION AND PERFORMANCE OF COMMERCIAL BANKS IN KENYA: A CASE OF EQUITY BANK LIMITED

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ABSTRACT

Kenya's financial industry has been developing in terms of innovation over the years, with world-class banking norms and the emergence of new technology that served as the foundation for this study. The purpose of this study was to investigate the association between product innovation and commercial bank performance in Kenya. The outcomes of this research are expected to assist commercial banks implement study recommendations to improve on their performance, the Central Bank of Kenya and the Kenyan government to formulate appropriate policies to enhance commercial banks performances and to inform future researchers when furthering their researches. The descriptive research approach was utilized in the study, with a target population of all 186 Equity Bank branches in Kenya as of December 31, 2020. The sample for this study was 55 branches drawn from all eight regions of Equity Bank using stratified random sampling. Secondary data was obtained from 2015 to 2020 to generate a panel data set that was analysed to derive conclusions regarding the influence of product innovation on Equity Bank Limited's performance. Primary data collection was done remotely as much as possible; however, in cases where on-site research was required, the study was done within government provisions in containing COVID-19. To guarantee consistency, the survey used closed ended questions which were in form of Likert scale. The information gathered was evaluated in terms of standard deviation, percentages and mean. Inferential statistics was utilized in the study, and a multiple regression was used to analyze the influence of organizational innovation on commercial banks' performance. The data presentation is in form of pie charts, tables, figures, and percentages, which aided the researcher in drawing conclusions and making recommendations to improve commercial banks performance. The study's findings demonstrate that commercial bank performance has been gradually increasing

over the years as a result of product innovation, and it is critical that banks continue to innovate. In order to enhance Kenyan commercial banks performance, the research recommends that commercial banks increase their product innovation; and for further researches, the study recommends a need to conduct similar study in Kenya's banking industry, but with a different model and method in order to evaluate additional drivers of commercial bank performance.

Key words

Mobile banking, Product innovation, commercial banks

BACKGROUND OF THE STUDY

Organizations require innovation because it helps them to deal with environmental changes (Kumar, 2011). In terms of products and service delivery methods, innovation takes several shapes. Forces from both the internal and external surroundings promote innovation. Turbulence is common in the environment, prompting the creation of new processes. Based on a thorough review of existing definitions, Herregodts (2014) presented a multidisciplinary understanding of invention: The multi-stage process by which organizations translate ideas into improved goods, services, or procedures in order to effectively develop, flourish, and differentiate themselves in their marketplace is known as innovation. As a result, it is critical to recognize that innovation guarantee that companies have a competitive edge in the market.

On a worldwide scale, in 2019, Bank Dhofar in Oman debuted a cardless banking service for ATMs for the first time in the world, allowing users to carry out ATM transactions conveniently using just their cellphone phones. Customers had to activate their cellphone number for this service via the Bank Dhofar contact center or their mobile banking application. Customers who had been verified may go to the nearest Bank Dhofar ATM and enter their mobile number, one-time PIN (OTP), and card PIN to complete their transaction. Other banks provided the same service or even went a step further by including more innovations into the service.

Ecobank was selected the most innovative bank in Africa by Global Finance during the eighth edition of the Global Finance annual awards, the Innovators 2020, which honors entities that consistently explore new avenues and build new instruments in

finance. Ecobank is the only bank having banking operations in 33 African countries, operates an integrated African network, and has a larger African footprint than any other bank in West, Central, East, and Southern Africa. Ecobank offers a single Mobile Banking Application that works seamlessly across all of its 33 African subsidiaries; Multinationals and SMEs in Africa are served by One Ecobank Omni and Omni Lite. One Rapid transfer application that crosses borders and enables the diaspora community to send money straight to loved ones throughout Africa, promptly and inexpensively; and One Ecobank Online Banking platform that is easily accessible across 33 African nations.

Kenya's financial innovation has made the country a case study in financial sector growth, thanks to private sector innovation and supporting regulation. Much of Kenya's progress has happened in the last ten years, thanks to supply-side innovations such as M-PESA, M-Shwari, agency banking, and the introduction of online banking applications. With 68,000 bank and mobile money agents spread around the country, almost three-quarters of Kenya's population now resides within three kilometers of a financial sector access point, indicating that the country has passed the access frontier. New developments in mobile banking, including MShwari, KCB M-PESA, and Equitel, have provided bank accounts to nearly 10 million Kenyans, who may now access savings and loans via the mobile payments network M-PESA.

In Equity bank, Equitel, a mobile virtual network provider competing with Safaricom's M-Pesa, is pushing the frontiers of financial inclusion even further by providing a full suite of banking services on mobile devices through Equity Bank. Equitel is a unique form of Hybrid Corporation, conceived equally by inventiveness and necessity: a telecommunications company born of a bank. Equity Bank, the parent firm, teamed with worldwide telecom Airtel to provide people with a product from two long-standing companies. It deployed representatives all throughout the country to demonstrate usage, even to distant locations where other banks and telecoms had not gone. Through this regionally targeted strategy, Equitel developed to grab 22 percent of the mobile money market in just five years.

Product innovation

Various terminologies have been used to define product innovation. According to Un et al. (2010), product innovation is defined as the continuous introduction of new and valued goods or the dramatic transformation of existing ones. As a result, it causes changes in the consistency, design, and customization of existing goods, requiring businesses to innovate in response to changing customer demands and habits, as well as capitalize on possibilities given by technology and changing markets, systems, and dynamics.

Performance of Commercial banks

Commercial banks' performance, according to Pandey (2010), is a measure of how a firm utilizes its capital in its common line of business to generate income. Financial performance is a subjective indication of a company's capacity to generate money by utilizing assets from its principal method of service. Analysts and investors use financial performance to evaluate rival firms in the same industry or to compare businesses or sectors in aggregate. Financial performance assessment is essential not just for providing insight into how the firm is functioning, but also for improving it. Data collection on the quality and efficacy of the business's operations is essential.

Statement of the problem

We have had a number of banks and financial institutions closing in Kenya and the world over in the last decade, and many customers transferring their savings and deposits from one bank to another due to poor performance in the banking sector (Mosongo, 2013). Understanding the elements influencing commercial bank performance is critical not only for commercial bank management, but also for other stakeholders and interest groups such as the Central Bank, the government as a whole, the bankers' association, and other financial authorities in the country (Ayele, 2012). Several studies on the determinants of commercial banks' financial performance have shown a number of variables, including internal bank-specific factors, industry-specific factors, and external macroeconomic factors. It is crucial to highlight,

however, that nations differ in terms of macroeconomic situations, financial systems, and the operational environment of these institutions (Ongore and Kusa, 2013).

Most research on bank performance focused on sector-specific issues that influenced the overall performance of the banking industry. Despite their importance in influencing the success of any industry in the economy, macroeconomic factors that impact the performance of commercial banks have not been deeply studied in the Kenyan context. As a result, it is evident that no research has been conducted in Kenya on the drivers of bank performance utilizing industry-specific variables, bank-specific factors, and macroeconomic factors.

Despite the fact that academics such as Mosongo (2013) and Nyathira (2012) have conducted studies on the influence of innovation on the performance of financial institutions, there is a significant vacuum in scholarly understanding. Several researches have been contacted, though restricted in scope. They isolate elements of innovation for research and, as a result, do not cover the key components of innovation, namely product, process, market, and firm innovation. As a result, it was important that various forms of organizational innovation were compared and contrasted, and their influence on financial performance in a commercial bank environment critically examined in this study, in which the researcher utilized a Likert Response Format to measure financial performance. Respondents were rated using a Likert scale and their responses on numerous topics on organizational innovation in a structured questionnaire.

Objective

This study seeks to find the effect of product innovation on performance of Kenyan commercial banks with a special focus on Equity Bank limited.

Significance of the Study

These findings are expected to assist commercial banks implement study recommendations to improve on their performance, the Central Bank of Kenya and the Kenyan government to formulate appropriate policies to enhance commercial banks performances and to inform future researchers when furthering their researches

Scope of the Study

This study analyzed effect of product innovation on performance of Equity Bank using secondary data from 2015 to 2020 gathered from Central Bank of Kenya statistics, Equity Bank's financial reports, and primary data gathered from Equity Bank's staff members. The target population was the 186 Equity Bank branches dispersed across the whole country as of December 2020. The sample size was 55 staff members drawn at random from 55 branches. The bank's financial performance was measured in terms of profitability and customer satisfaction. The study was carried out between the months of September 2020 and the month of November 2021

THEORETICAL BACKGROUND AND LITERATURE REVIEW

This research work takes into account three theories: Innovation diffusion theory, Resource based theory and the Silber constraints theory as used in product innovation and proceeds to review empirical literature done by various scholars on the study variables.

Innovation Diffusion Theory

Rogers created this hypothesis in 1962 with the goal of explaining what minor variables contribute to the diffusion of ideas across sectors. The theory describes how new technology is developed and how ideas circulate throughout companies. According to Rogers, new technological adoption is a time-based process that involves decision-making circumstances among members of a social setup.

The decision-making process for innovation is primarily driven to minimize ambiguity regarding the benefits and drawbacks of the innovation. It takes time for an invention to propagate in a social system and it does not happen overnight. Whether a person accepts or rejects a specific innovation is a judgment reached

following a sequence of thought and decision making. The stages of innovation diffusion are as follows: awareness, interest, assessment, trial, and adoption. The awareness stage is the point at which a person becomes aware of the existence of an innovation. The stage of interest is when the individual begins gathering particular facts and information about the invention. The evaluation stage is where an individual determines the value or worth of an innovation and base decision on it. Then the trial stage involves putting the innovation to the test or implementing it on a lesser scale, whereas the adoption stage involves putting the idea into continuous full-scale usage and receiving favorable acceptance from society members.

According to this idea, once new abilities and concepts are acknowledged, they spread across the external environment and society as a whole (Rogers, 2003). The adoption phase of innovation begins with information acquisition and ends with the formation of attitudes toward innovation. Adoption of innovation is governed by the complexity of the technology, the compatibility of the technology, and the eventual advantages of the accepted innovation.

The study of how, why, and at what pace creative ideas and technology spread in a social system is the subject of innovation diffusion theory. In terms of change theories, the Innovation Diffusion hypothesis offers a different method to studying changes. Rather than concentrating on convincing individuals to change, it sees change as largely about the development or reinvention of goods and behaviors to better meet the requirements of individuals and communities. It is not people who change in the dissemination of innovation, but the innovation themselves (Robinson, 2009).

Diffusion, according to Fichman (2000), is the process through which a technology spreads over a population of organizations. The movement of ideas from one center or institution within a society to other areas of that society, is sometimes referred to as the diffusion of innovation. Rogers (2003) categorized people in society into five groups based on their innovativeness when examining social systems. The degree to which an individual adopts new ideas comparatively early than other members of a system is referred to as innovativeness (Rogers, 2003).

The Innovation Diffusion Theory helps us understand how various ideas are adopted by target groups. There are five categories of adopters who use technology or innovation as it spreads across the social system. The temporal dimension distinguishes these five sorts of people from one another.

Innovators are those who are eager to adopt new ideas and goods, whereas laggards are suspicious of new ideas and products. Innovators are daring risk-takers who act as gatekeepers for those who come after them (Kaasinen, 2005). Adoption as a choice process necessitates the potential adopter gathering information about the technology, examining it, and determining if it delivers sufficient improvement to warrant the investment of energy and time required to add it to his/her skill set (Rogers, 2003). Innovators are fast to respond to and accept change. They not only provide their time and effort, but they also provide timely information for others to adopt. Innovators are risk takers who are eager to put innovative technology to the test. As a result, they should be prepared to deal with unprofitable and failed inventions, as well as a degree of ambiguity regarding the innovation.

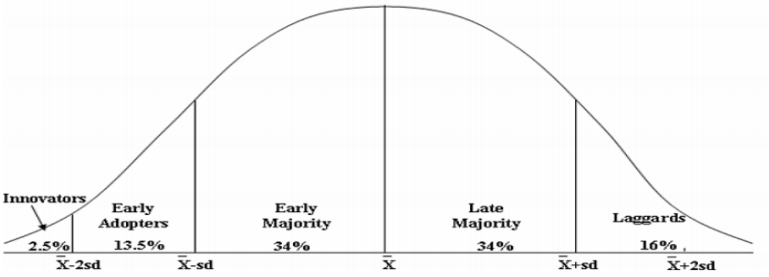
Early adopters are opinion leaders who are the first in their group to accept new technologies and are ready to preserve their position by reviewing innovation for the rest of the group (Kaasinen 2005). Early adopters, as opposed to innovators, are more constrained by the social system's constraints and play a leading role in the dissemination of a new technology or invention. The judgement of this group has a direct impact on the group's success or failure, as well as the pace of future dissemination. Leaders play a critical role in deploying the resources that propel innovation forward; thus, this category of adopters, though small in number, is critical in reducing the levels of uncertainty surrounding the adoption of an innovation. Early adopters serve as an independent test bed, ironing out flaws and recreating the invention to meet the demands of the general public (Les Robinson, 2009). This category are the advisers of a social group on an invention; thus, their judgment is important not only in determining the destiny of an innovation, but also in determining the pace of adoption by other users.

The early majority consists of consumers who are more cautious and are more likely to accept an innovation. To employ a new technology or innovation, they generally rely on the knowledge supplied by early adopters. While they take their time deciding whether or not, early majority are pragmatists who are satisfied with moderately progressive ideas but will not act unless there is substantial evidence of advantages. They are trend followers who are mindful of fads and are affected by current styles. They want to hear phrases like "industry standard" and "supported by regular, respectable people" (Robinson, 2009).

The Late Majority group adopts after the majority average of the population has done so, and their key features are that they are suspicious and cautious. These include skeptics who wish to wait until the majority of consumers have accepted the innovation (Kaasinen, 2005). The Late Majority always have reservations about adopting the new products.

The group which makes judgments based on the past rather than the future, and they would be blamed for being late to adopt (Kaasinen, 2005) are the last adopters. The laggards are referred to as change resistors, but they may have their own reasons for resisting change, such as financial concerns connected with the adoption of a new technology, which may compel them to choose an invention in its latter phases. They are merely cautious when it comes to adopting a new invention. Some of them are so concerned that they remain up all night, tossing and turning, concocting counter-arguments (Robinson, 2009). Because of limited resources and a lack of innovation awareness, they want to ensure that an invention works before adopting it (Sahin, 2006). Despite their opposition to inventions, they may occasionally motivate the inventor to improve the innovation itself.

Figure 1: Adopter Categorization



The Innovation Diffusion Theory focuses on the features of new items that must have advantages in order for them to be effectively accepted by the target users. This hypothesis gives useful information on how customers disseminate and embrace innovation in the banking sector. Due to strong rivalry among financial sector companies, all players will attempt to develop new goods, ideas, and services in order to get a competitive edge.

This theory was very relevant to this study because it demonstrated the process by which new technical advances are accepted in a social setting designed to broaden the market base of financial institutions. Adoption of innovation has the potential to improve financial performance owing to increasing market demand. Such innovation as product innovation, process innovation, market innovation and firm innovation were found to be making financial transactions more convenient and less expensive than visiting traditional banking halls.

Resource Based Theory

Barney first proposed the resource-based theory of a business in 1991. According to Barley, a corporation has distinctive resources that must be competitive in the realm of competition. These strategic resources have the qualities of being valuable, scarce, imperfectly imitable, and strategically irreplaceable. Resources may be thought of as inputs that enable businesses to carry out their operations. Companies' strategic decisions while competing in their external business environment are determined by their internal resources and skills. Capability also enables businesses to enter new markets (Collis and Montgomery, 2008).

According to resource-based theory, innovation acquire long-term competitive advantage through amassing and deploying resources to satisfy consumer interests in ways that are difficult to substitute for or replicate. It asserts that successful innovation are defined not only by the invention itself, but also by the people involved, the organization behind the innovation, contextual variables around its execution, distribution, and the benefits of the innovation to stakeholders and the company. According to resource-based theory, businesses are a collection of resources and capabilities (Barney et al., 2011).

Different resources and firm's ability will give the company with a competitive edge. The assumptions of this theory are centered on how firms may compete with other organizations to achieve a competitive edge by managing the resources they have. Resources in the form of assets, organizational processes, corporate characteristics, information, networks, or expertise that organizations control and control may be utilized to assemble and implement their plans (Vrande et al., 2009). Based on this fact, social capital meets the criteria for a valued and differentiated resource capable of creating a competitive advantage and, ultimately, better performance.

Business entities' resources should be safeguarded and arranged to meet the demands of their consumers in order for the organization to stay competitive. As a result, the success of any corporate organization will be determined by its ability to constantly create new items targeted at meeting the demands of clients in the market by providing high-quality commodities.

This theory focuses on managerial-based processes, which necessitate that it implements mechanisms aimed at guaranteeing optimum resource exploitation in order to accomplish institutional goals. The resource-based paradigm attempts to place a greater focus on a firm's internally endowed resources rather than the external environment.

According to this theory, innovation acquire long-term competitive advantage by amassing and deploying resources to satisfy customer interests in ways that are difficult to substitute for or replicate. It asserts that successful inventions are

determined by factors other than the innovation itself. The individuals engaged, the organization behind the invention, the contextual circumstances around its execution and distribution, and the benefits of the innovation to stakeholders and the company all contribute to success. The idea has been well researched, and it will enable the researcher to understand and explain what works, where it works, and why it works.

It provides a theoretical framework for evaluating innovation that may be applied in the banking environment. Because banking occurs in competitive contexts, any theory should be compatible with a broad theory of competition. This theory, as the name suggests, meets this criterion. The idea serves as a foundation for conventional banking practice research theories such as implementation science and operations research, among others. It allows for the integration of several research streams into a single cohesive framework. In reality, the resource-based theory of competitive advantage may be applied to social and administrative sciences in the financial sector as a comprehensive theory.

The theory will be beneficial in this study since it regards inventing as an evolutionary process based on the following premises: Demand varies constantly across market sectors, and consumers and businesses lack complete knowledge. The idea considers the fact that humans are motivated by self-interest, but businesses want greater financial success.

The Resource Based Theory was very important to this study because it emphasizes on the firm's heterogeneous resources, which include physical, human, and organizational capital, and provided a deep understanding of competition as the source of innovation, which stems on a general rule that financial performance between firms varies.

EMPIRICAL LITERATURE REVIEW

Many organizations across the world are concerned about the importance of innovation. Many commercial banks employ this strategy to build worldwide financial networks, and as a result, many commercial banks have adopted technology

to stay competitive. A search for literature in this subject reveals that numerous research have been conducted both on the worldwide stage, in the African setting, and locally. Various scholarly literatures on the influence of financial technology on financial efficiency have been investigated and yielded varying results. Some researchers have found that innovation result in good outcomes.

Product Innovation and Performance of Commercial Banks

Chemitei (2012) analyzes the role of product innovation in establishing a competitive advantage in Kenyan commercial banks. Commodity innovation in Kenyan MFIs, according to the research, does not contribute to firm profitability. Despite the fact that product advancements do not result in profits, it is widely acknowledged that product development, management methods, customer service quality, and training all contribute to benefit, increased market share, and sales. The study's findings have a clear disadvantage in that they fail to examine the influence of product development on commercial banks performance.

Atieno (2001) studied the impact of microfinance technologies on the access to credit of small and medium-sized companies. The study's goal was to categorize the innovative goods accessible to Kenyan SME's (SMEs). The study discovered that microfinance innovative products were positively connected to SMEs' access to financing. It was highlighted that new loan and savings products enhanced SMEs' access to funding. Furthermore, it was discovered that deposit-taking microfinance organizations have recently implemented a variety of innovation, including savings and lending programs. Despite the fact that the subject of product innovation has been covered, the study has neglected to investigate the impact of the same innovation on the performance of MFIs.

Kojo and Yazidu (2015) reported findings from their study of financial features and trends in Ghanaian microfinance organizations. The study attempted to establish a link between MFIs' financial frameworks and their innovativeness. It was discovered that interest rates and loan payback rates have a significant impact on product innovation or new savings products in institutions. Furthermore, it was discovered that the sources of finance, namely owner equity and bank capital, boosted product

innovation. It was suggested that the country's MFIs diversify their funding sources in order to improve product innovation and overall innovation. However, the study failed to establish a relationship between product innovation and performance.

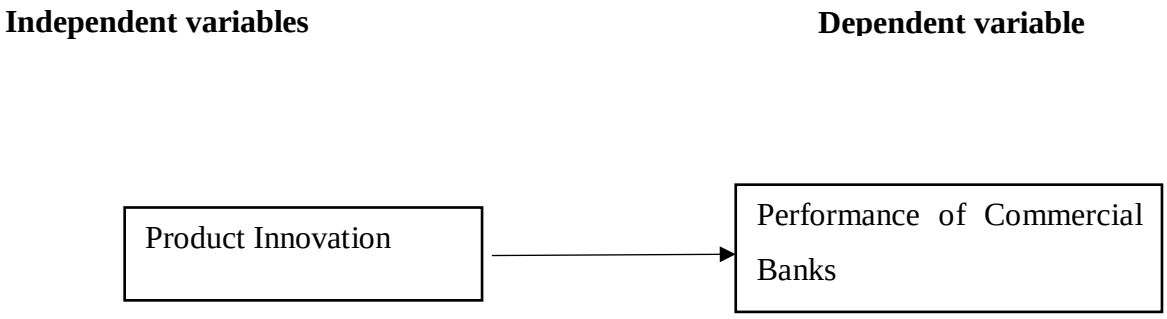
Research gaps

This study recognizes the scholarly efforts made in earlier studies concerning organizational innovation and commercial bank performance. None of the studies looked at organizational innovation and its impact on commercial bank performance in depth. These studies, as well as those reviewed in the review of literature, have left information gaps in the field of organizational innovation, particularly in the competition of Kenya's banking market, which the current study intended to fill.

Conceptual framework

Profitability is the yardstick used in the banking sector to assess the performance of commercial banks. The independent variable consist of product innovation, while the dependent variable were the performance of commercial banks, which is determined by how well the independent variable is managed. Performance of commercial banks is expected to be good if the independent variable is well managed, and vice versa. In this regard, this study will seek to identify the effect of product innovation on performance of commercial banks in Kenya, as indicated in the figure 2.

Figure 2: Conceptual Framework



Operationalization of Variables

Product innovation, process innovation, market innovation and firm innovation are the four types of independent variables for this study. All of these factors were aimed

at enhancing the performance of the commercial bank, which served as the study's dependent variable.

Table 2: Operationalization of Variables

Concept	Indicators	Measure
Product Innovation	• Product offerings	The products available for customers in different sectors
	• Product approval	The approval procedure for new products and services
	• Product design team	Existence of product design centers where new products were developed.
	• Product and technology	Whether the innovation of products is affected by technology
	• Introduction of new products	How the bank introduces new products to the customers
Bank's performance	• Bank's profitability	Whether organizational innovation has direct effect on commercial bank's profitability
	• Return on Assets	If there is any relationship between organizational innovation and return on asset
	• Return on Investment	Whether Return on Investment is affected by organizational innovation in Equity bank
	• Customer service	Effects of organizational innovation on commercial bank's customer service.
	• Growth in loans	If innovation in commercial bank's leads to growth in the bank's loans to customers

RESEARCH METHODOLOGY

This chapter addresses the research design, study population, data collection methods, their validity and reliability, data processing and presentation procedures used, and test of importance.

A research design is a method that encourages data gathering and interpretation in order to achieve the study's objectives. According to Sekaran & Bougie (2013), a research design is a strategy that establishes the guidelines for data collecting while guaranteeing that research objectives are met. The type of data and type of data analysis used in a specific study influence the research design (Cooper, Schindler, Pamela 2001). A descriptive research design, which is a form of research methodology that tries to gather data in order to understand the nature of a connection between variables, was used in this study. This type of analysis sought to explain traits, beliefs, prospective behaviors, and attitudes, and included data gathering without interfering with natural situations.

Target Population

A target population is the collection of all items that form the foundation of a particular study. Cooper & Schindler (2013) define a target population as a full set of components and units on which particular research intends to make conclusions on. The target population for this study was the 186 branches of Equity bank spread across the 8 regions in Kenya which the bank was operating in as at December 2020.

Sample and Sampling Procedure

A sample consists of few items selected from the target population that is used to collect data in order to make generalizations about the complete target population. According to Mugenda & Mugenda (2012), a reasonable sample size that is appropriate for giving conclusions about the whole target population is approximately between 10% and 30%.

This study's sample included 55 branches drawn from Equity Bank's eight regions. To determine the sample size, stratified random sampling was utilized to divide the employees into three categories: managers, supervisors, and officers. Simple random sampling was employed to get an unbiased and representative sample that reliably and properly represented the research population.

Research Instruments

To acquire the necessary data, this study employed questionnaire as the research instrument. The objectives of this study, the population sample, the geographical dispersion, and the needed consistency of the responses all influenced the design and selection of research instrument.

Questionnaires

These are research tools that were used to collect data from the whole sample, which includes respondents from various branches throughout Kenya. Questionnaires were utilized because they maintain anonymity throughout data collection and were easier to administer than interviews. Despite these benefits, they presented certain challenges, such as poor response rates, a lack of direct interaction with respondents, and the inability to explore further.

Pilot Study

This was achieved by administering questionnaires to two branches of Equity bank before the study and targeted 6 staff members which was 11% of the sample size of the actual study as recommended by Kothari (2005). The results confirmed that the phrasing was clear and that there were no research biases as well as ensuring that all questions were understood in the same way by all respondents. It is also noted that, the responses were not included in the final study.

Reliability of instruments

According to Kothari (2005), dependability refers to the degree to which research equipment can provide dependable study results. The Cronbach coefficient alpha model was utilized to assess the reliability of the study equipment, yielding a dependable number of 0.79.

Validity of instruments

The degree to which research tools measure what they are supposed to assess is referred to as validity (Kothari, 2005). For this particular investigation, content validity was most important since it addresses how well the instrument's content samples the nature of the items about which deductions are to be made. The research supervisor

rated the content of these instruments and counseled the researcher on content validity to determine the content validity of these research instruments for this survey, and the feedback was utilized to examine the research instruments.

Data Collection procedure

Secondary data was gathered from 2015 to 2020 in order to create a panel data set that was used to examine and to draw conclusions about the impact of organizational innovation on the performance of Equity Bank Limited. This time period was appropriate since Kenya had seen great progress in terms of organizational innovation. Central Bank of Kenya's regulatory reports, the Equity Bank website, and the annual financial statements acted as secondary sources of data.

The questionnaire was brief and easy to read, yet it provided enough information for the participants to make an informed conclusion. The phrasing was carefully chosen so that it did not unfairly inflate participants' expectations or add to stigma, while still providing complete details about any risk or benefits of participation.

The researcher used ENKETO online data collection application which is a reputable platform and software for remote data collection to avoid data loss or other unforeseeable legal issues, and the study documents were designed in such a way that they could be shared electronically during virtual meetings.

Data Analysis and Presentation

The study involved both quantitative and qualitative evidence to analyze the collected data and make conclusions; editing to eliminate restatements; and sorting. The data was coded and checked for completeness. To explain the detailed quantitative findings, descriptive figures comprising of mean, percentages and standard deviations.

The study used inferential statistics as well as a multiple regression model to assess the influence of technical organizational innovation on the bank's financial performance. SPSS was used to analyze the data obtained using closed ended questions while STRATA 17 was used to analyze open ended questions in this study.

Analytical Model

In order to address the suggested model for the link between commercial bank outcomes and the independent variables, the regression coefficients were computed and reported. Both, together with their significant values, calculate the impacts of each independent variable on bank performance as well as the impact of changing these factors on performance. As a result, these coefficients used the following regression model, which connected the independent and dependent variables.

$Y=\beta_1 \mathbf{X_1}+\varepsilon$

Where: **Y** = financial performance

β_1= is the constant to be estimated by the model

X_1= Coefficients of independent variable on the dependent variable.

ε = error term in the model

The study was carried out with a 95% confidence level, meaning a 5% margin of error. The F-test was used to explain the overall impact of organizational innovation on the performance of Equity Bank. In the study, the P-Value was used to assess the statistical significance of variables. Variables are deemed significant if the P-Value is less than 0.05 and the alpha value at the 95 percent confidence level is greater than 0.

Because the independent variables' significance was established using a 95 percent confidence threshold. The chi-square test was used to establish the relevance of creative characteristics as predictors of financial success, and a correlation analysis was performed to examine how the model's variables interacted with one another.

Ethical Considerations

Study ethics included standards for everyday duties, the protection of respondents' dignity, and the disclosure of research findings.

Respondents' participation in this survey was entirely voluntary, with no compulsion or deceit. The researcher did not compel respondents to participate. Instead, participants were encouraged to participate with the clear knowledge that they were

under no duty to do so and that there were no negative repercussions if they do not engage in this study.

RESEARCH FINDINGS

The study aims at assessing the influence of product innovation on the financial performance of Kenyan commercial banks, with a specific focus on Equity Bank Kenya Limited. The study focused on the influence of product, process, market, and firm innovation on financial performance as evaluated by income, profit, return on assets, and customer satisfaction. The moderating elements in the study were internet services and digitalization. This section discusses the response rate, sample characteristics, data analysis presentation, interpretation, and discussion of findings, while data presentation is organized based on the study's specific objectives.

Sample Demographics

This part addressed the respondents' fundamental characteristics of the sample used, such as their age, gender, region of operation, and years of banking experience.

Response Rate

Between the 1st and 20th of October 2021, primary data was collected using a digital questionnaire powered by Enketo online application, while secondary data was collected using a self-created data collecting form. 87 surveys were sent at random to Equity bank employees in 55 pre-selected branches. 55 surveys were successfully completed and returned, thus a response rate of 63%. Given the suggestion of Mugenda and Mugenda (2003), who advise on response rates surpassing 50%, it is plausible to infer that the response rate for this study was acceptable.

Respondents Distribution by Region

According to statistics in Table 4.1, the majority of respondents (24%) were from Nairobi West and North Eastern districts, while Diaspora and Head Office had the fewest (2%) and the remaining six regions ranged from 7% to 20%, as indicated in the table below. This sort of distribution was influenced by the number of branches in each location. The nature of the inquiry, on the other hand, attracted the curiosity of Nairobi and its neighboring branches.

Respondents Distribution by Gender

According to Table 4.1, men made up 62 percent of the respondents, while women made up the remaining 38 percent. This was a clear sign that Equity Bank adheres to the two-thirds gender rule by the government of Kenya.

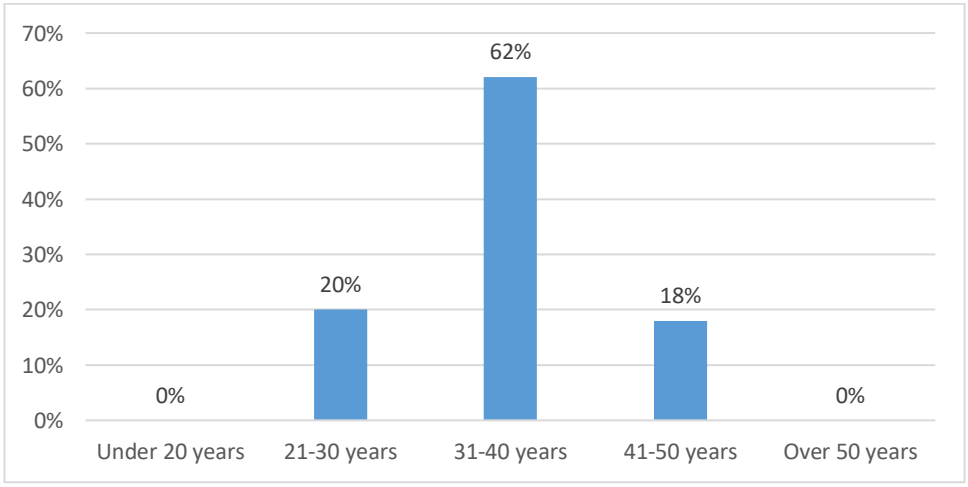
Table 6: Respondents by Gender

Gender	Male	Female	Total
Frequency	34	21	**55**
Percent	62%	38%	**100%**

Respondents Distribution by Age

According to Table 4.3, the majority of respondents were over 30, with the majority (62 percent) lying between the age bracket of forty one to fifty years. The remaining respondents (28%) ranged in age from 31 to 40. This indicates that the majority of responses were not in the youthful group, which is primarily comprised of those aged 18 to 35. This contradicts the widely held belief that Kenyan commercial banks employ a young workforce. Only a few respondents were over the age of 40, which is similar with many banks' workforces, which are predominantly under the age of fifty owing to periodic staff realignments.

Figure 5: Respondents by Age



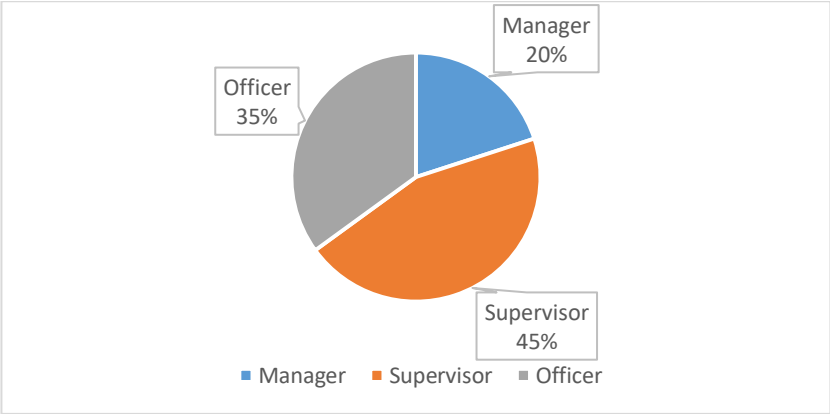
Respondents by Age (x)

Respondents Distribution by Current Position in the Bank

According to the data in Table 4.4, the majority of respondents (45%) worked as supervisors, managers (20%), and officers (35%). This type of distribution might have been impacted by entry point behavior during data collection, since in most institutions, bank personnel were the major point of contact for clients, leaving little time for the research.

Managers and supervisors are the jobs that promote innovation in the branch structure. These are also the roles that may be interested in innovation-related research since they understand organizational innovation in a bank setting.

Figure 6: Respondents by Current Position in the Bank



Respondents Distribution by Number of Years Worked in the Bank

Table 4.4 shows that 48 percent of respondents had worked in the banking business for 5-10 years, while 33 percent had worked for less than 11-15 years. According to the statistics, the majority of respondents entered the business after 2010, which is consistent with the development of the financial sector over the previous decade. This also indicates that Equity Bank has employed more employees to oversee the recent massive expansion, transformed itself as a job provider, and attracted a diverse range of skills during the last ten years. The results also show a stable and sticky job environment, indicating that Equity Bank has transformed itself into a preferred employer in the country by implementing various employee retention strategies, as

evidenced by the large number of respondents who have worked for the bank for more than five years.

Table 9: Respondents Distribution by Number of Years Worked in the Bank

Years	**Under 5 years**	**6-10 years**	**11-15 years**	**16-20 years**	**Over 20 years**	**Total**
Frequency	7	27	18	3	0	**55**
Percent	13%	48%	33%	1%	0%	**100%**

Study variables

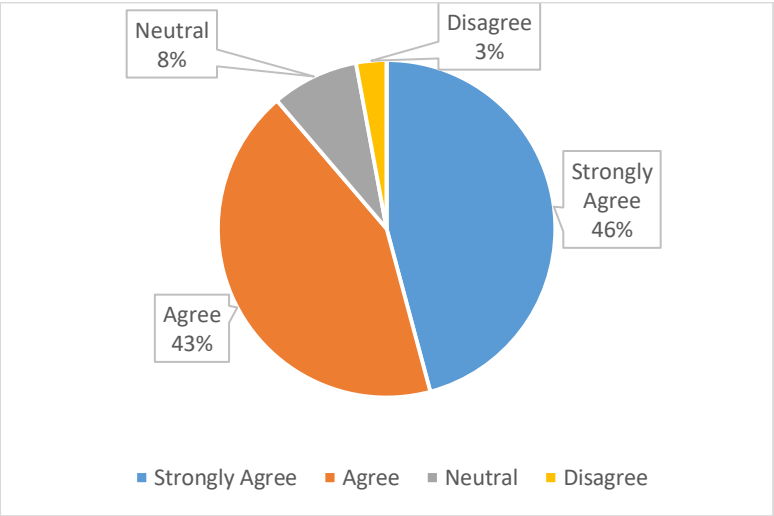
The study's major goal was to assess the impact of product innovation on the performance of Kenyan commercial banks. This was investigated using questionnaire statements, with respondents expressing their level of agreement with the assertions. For ease of data processing, the questionnaire responses were coded numerically and based on a Likert scale. The scores on the Likert scale were as follows: 5=strongly agree, 4=agree, 3=neutral, and 2=disagree. 1=disagree strongly.

Product Innovation and Performance of Commercial Banks

The data in Table 4.5 represent responses to statements concerning the influence of product innovation on commercial bank performance. According to the data, 91.4% of respondents agreed that product innovation have a favorable impact on commercial bank performance, while 6.6% were neutral and 2% disagreed.

On a 5-point Likert scale, the mean score for product innovation was 4.371. The aggregate standard deviation of 0.555 indicates that all of the responses were within one standard deviation of the mean.

Figure 8: Product Innovation and Commercial Banks Performance



Pilot Study Analyses

According to the results of the pilot study, 67% strongly agreed and 33 that organizational innovation affected a bank's performance. The average score for the effect of organizational innovation on Equity bank performance on a five-point scale was 4.3. This mean score shows that most of the respondents who participated in the Pilot study believed that organizational innovation positively influenced the performance of commercial banks in Kenya.

Correlations-Commercial banks' Performance and Product Innovation

Table 10: Product Innovation and Commercial Banks Performance

Table below shows the degree of relationship and significant levels between commercial bank's performance and organizational innovation. All of the bank innovation show a modest association with bank performance. On the other hand, the table shows a strong correlation among the independent variables. This strong correlation between independent variables causes multicollinearity, which may lead to erroneous findings.

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
Equity bank has product offerings for customers in all sectors	33	21	0	1	0	**4.564**	**0.193**
I am comfortable with the approval procedure for new products and services in Equity bank	26	21	6	2	0	**4.290**	**0.081**
There exists a product design center where new products are developed in Equity bank.	24	26	5	0	0	**4.345**	**0.026**
In Equity bank innovation of products is affected by changes in technology	16	36	1	2	0	**4.200**	**0.171**

The bank has a well-planned procedure of introducing new products to the customers	31	18	6	0	0	**4.455**	**0.084**
Average						**4.371**	**0.555**
Percentage	**47.2%**	**44.2%**	**8.6%**	**3.0%**	**0%**		

Regression Analysis: Commercial Banks Performance and Organizational innovation

A regression equation model in the form below was employed to test the hypothesis.

$Y=\beta_1 X_1+\varepsilon$

The study variables were Y=Bank Performance, X1=Products Innovation. Table 4.11 displays the model fitness indicators. The results show that the performance of commercial banks is 0.704, indicating a significant positive correlation. With a coefficient of determination (R Square) of 0.496, the model can explain 49.6 percent of the changes in the dependent variable of commercial bank performance. In other words, product innovation, process innovation, market innovation, and firm innovation can account for 49.6 percent of changes in commercial bank performance in Kenya.

Table 16: Model Fitness-Commercial Banks Performance and Product innovation

Indicator	Coefficient
R	0.704
R Square	0.496
Std. Error of the Estimate	7464.565

Limitations of the study

Because this study focuses on commercial banks in Kenya, the conclusions are solely applicable to commercial banks; any effort to apply the findings to other companies outside of this scope should be handled with caution.

Second, as a concept, the research concentrated on the consequences of organizational innovation on the performance of commercial banks. As a result, interpretation of these results should be confined to the idea and, by extension, the model utilized in the study.

Finally, this research is limited to Kenya. As a result, the study suffers from the restriction of country-specific studies. As a result, the findings are limited to Kenya, and any effort to generalize them to other countries should be handled with caution.

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Summary of Findings

The goal of this research was to look at how organizational innovation affects the performance of Kenyan commercial banks. By December 2020, the research population consisted of all 189 Equity Bank branches in Kenya, with a sample of 55 branches chosen. Secondary data was gathered from Banking Surveys, Equity Bank financial reports and websites, and the Central Bank of Kenya data over a ten-year period, from 2010 to 2020. Prior to the actual final data collection, a pilot study was conducted to evaluate the content validity and reliability of the questionnaires. The validity of the questionnaire was increased by discussing its contents with five randomly chosen Equity bank employees. Excel and the Cronbach alpha correlation coefficient were used to complete the reliability tests. The study sample received 87 questionnaires, 55 of which were returned for processing. According to Mugenda and Mugenda (2003), this represented a response rate of 60%, which is regarded outstanding. The data was examined using descriptive statistics, correlation statistics, and regression statistics, with significance determined at the 5% level.

Product Innovation and Performance of Commercial Banks

The study's primary goal was to determine the impact of product innovation and performance on commercial banks in Kenya. The findings demonstrated that product innovation had a beneficial impact on commercial bank performance. This conclusion is corroborated by the coefficient of determination, which demonstrates that changes in commercial bank performance are explained by product innovation. The effect of product innovation on commercial bank performance is likewise statistically significant, and so the alternate hypothesis was accepted, implying that the influence is not coincidental. Equity bank has used innovation to increase its operations and, as a result, its performance.

Conclusion of the study

Product innovation was found to contribute positively toward performance of commercial banks. These study shows that Equity Bank has continued to invest in product innovation because it believes that doing so would result in better profits for the bank, either directly or indirectly. Similar findings were published by Nofie (2011), who used a sample of 27 European nations and discovered that product innovation in debit cards and credit cards had the potential to increase commercial bank's income, which concurs with the preceding findings. This previous research, as well as the findings of this present study, corroborates the trend in the Kenya banking industry, in which banks have been increasing their reach via the application of product innovation.

Recommendations of the study

Product improvements have been proven to have a significant impact on the delivery of technology-driven financial services. It is advised that commercial banks continue to develop long-term business relationships and collaborations with information technology and internet service providers. Product innovation had a greater moderating influence than other factors, which may be related to the public's degree of penetration and ease of access to banking goods and services. Banks should capitalize on product innovation to expand their company and client base. As delivery

platforms, the government should continue to provide additional incentives for technologies that stimulate product innovation.

Suggestions for further research

The study recommends a need to conduct similar study in Kenya's banking industry, but with a different model and method in order to evaluate additional drivers of commercial bank performance.

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