
Innovation Strategies and Organizational Performance of Commercial Banks in Kenya

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Abstract

Commercial banks play a vital role in the economic development of Kenya by serving as financial intermediaries between savers and borrowers. They provide essential financial services such as accepting deposits, offering credit facilities, and facilitating payments and money transfers. Commercial banks in Kenya face persistent challenges in achieving their optimal performance. The general objective of the study was to determine the influence of innovation strategies on organizational performance of commercial banks in Kenya. Specifically, the study sought to establish the influence of digital innovation strategy and institutional innovation strategy on organizational performance of commercial banks in Kenya. This study was guided by Constraint-Induced Financial Innovation Theory and Financial Intermediation Theory. This study used a descriptive research design. The target population included all 39 commercial banks operating in the country, totalling 195. This involved 5 functional managers from each bank. The study used a census. Primary and secondary data was collected. A pilot test was conducted to assess the validity and reliability of the questionnaires. Data processing and analysis was done by the use of the Statistical Package for Social Sciences (SPSS) Version 24 software. Descriptive statistical tools, which included means and standard deviations, on the other hand, were inferential statistics in the form of Pearson's correlation coefficient and multiple regression analysis. The result of the analysis was presented in the form of tables. The study concludes that a digital innovation strategy has a positive and significant effect on organizational performance of commercial banks in Kenya. The study also concludes that institutional innovation strategy has a positive and significant effect on organizational performance of commercial banks in Kenya. Based on the findings, the study recommends that the management of commercial banks in Kenya should implement agile organizational structures and collaborative cultures as part of their institutional innovation strategy to enhance organizational performance. By shifting from rigid hierarchical models to more flexible, team-based, and adaptive frameworks, banks can respond more effectively to market changes, regulatory demands, and technological disruptions.

Keywords: *Innovation Strategies, Digital Innovation, Institutional Innovation, Organizational Performance, Commercial Banks*

INTRODUCTION

The financial sector is a vital component of any economy, encompassing institutions and markets that facilitate the flow of funds between savers and borrowers, promote investment, and support economic growth. It includes commercial banks, insurance companies, microfinance institutions, capital markets, and regulatory bodies (Yin & Zhengzheng, 2021). Commercial banks, in particular, are financial institutions licensed to accept deposits from the public, provide loans, and offer various financial services such as savings accounts, credit facilities, foreign exchange, and payment systems (Pooja & Balwinder, 2022). Commercial banks play a fundamental role in the economic development of a country by acting as financial intermediaries between depositors and borrowers. They mobilize public savings by accepting deposits in various forms, such as savings, current, and fixed deposit accounts, which they then lend to individuals, businesses, and governments for productive purposes. This process not only ensures the efficient allocation of financial resources but also promotes capital formation and investment, which are critical for economic growth (Siam, 2023).

Another key role of commercial banks is facilitating payments and transactions. They provide modern banking services such as electronic funds transfers, mobile banking, credit and debit cards, and online payment platforms, making financial transactions faster, more secure, and more accessible (Desai & Low, 2020). By doing so, they support the smooth operation of commerce, industry and trade both locally and internationally. Commercial banks also contribute significantly to employment creation and entrepreneurship development (Derreumaux, 2024). By offering credit facilities, advisory services, and financial products tailored to small and medium enterprises (SMEs), they empower entrepreneurs to start or expand businesses, which in turn generate jobs and fosters innovation (Mabrouk & Mamoghli, 2021). Additionally, through foreign exchange services and international trade financing, commercial banks enable participation in global markets, boosting exports and strengthening foreign exchange reserves. Furthermore, commercial banks are crucial in implementing monetary policies (Gardachew, 2023). By regulating interest rates, reserve requirements, and credit supply as directed by central banks, they help maintain economic stability, control inflation, and support sustainable development. Their compliance with regulatory frameworks also enhances transparency and confidence in the financial system, safeguarding the interests of depositors and investors (Porteous, 2022).

Innovation strategies refer to deliberate plans and approaches adopted by organizations to develop and implement new ideas, processes, products, or technologies aimed at improving efficiency, competitiveness, and performance (Mwangi, 2024). Innovation strategies may include introducing new financial products, automating banking processes, adopting digital platforms like mobile and internet banking, and restructuring institutional frameworks such as agency banking and ATMs (Karanja et al., 2023). These strategies are essential for banks to adapt to changing market dynamics, meet customer expectations, and achieve sustainable organizational

growth and profitability. Digital innovation strategy centers on leveraging digital technologies such as mobile banking, internet banking, and banking apps to provide convenient access to services, thereby improving customer experience and reducing service costs (Nyamongo & Ndirangu, 2020). Institutional innovation strategy entails modifying structural and regulatory frameworks, such as adopting agency banking, enhancing ATM networks, and complying with new regulations, to increase outreach and maintain operational stability (Yin & Zhengzheng, 2021). This study sought to determine the influence of innovation strategies on organizational performance of commercial banks in Kenya.

Commercial banks in Kenya play a central role in the country's financial and economic development by acting as key financial intermediaries. They mobilize savings from individuals and institutions and channel them into productive investments through the provision of credit (Mwangi, 2024). These banks offer a wide range of financial services such as deposit taking, loan provision, foreign exchange transactions, trade finance, and payment processing. They serve both retail and corporate clients and are regulated by the Central Bank of Kenya (CBK) under the Banking Act (Karanja et al., 2023). Commercial banks also play a crucial role in implementing monetary policies, facilitating domestic and international trade, and promoting financial inclusion through branch expansion, agency banking, and mobile banking platforms (Mwania & Muganda, 2023).

As of recent years, the commercial banking sector in Kenya has grown significantly in terms of assets, deposits, and technological advancement. According to the CBK Bank Supervision Annual Report, the banking sector recorded a total asset base of KSh 6.3 trillion in 2023, up from KSh 5.8 trillion in 2022. The growth has been largely supported by increased customer deposits and loan portfolios (Mwangi, 2024). However, the sector remains concentrated, with a few large banks dominating market share in terms of assets, loans, and profitability (Ndung'u, 2022). Despite the growth, commercial banks in Kenya continue to face several challenges including credit risk, non-performing loans, regulatory pressures, competition from fintech and mobile money operators, and economic shocks such as inflation and currency depreciation. To remain competitive, banks have increasingly embraced innovation strategies such as digital banking, product diversification, and customer experience improvement (Nyamongo & Ndirangu, 2020).

Statement of the Problem

Commercial banks play a vital role in the economic development of Kenya by serving as financial intermediaries between savers and borrowers. They provide essential financial services such as accepting deposits, offering credit facilities, and facilitating payments and money transfers (Mwangi, 2024). By mobilizing savings and allocating credit efficiently, commercial banks support entrepreneurship, business expansion, and investment across various sectors of the economy (Karanja et al., 2023). Furthermore, they contribute to financial stability and economic growth by ensuring liquidity in the financial system, offering employment opportunities, and integrating Kenya into the global financial system. As key players in the financial ecosystem, the performance and efficiency of commercial banks significantly affect the broader economy (Mwania & Muganda, 2023).

Commercial banks in Kenya face persistent challenges in achieving strong Return on Assets (ROA) and Return on Equity (ROE), both of which are vital measures of financial performance. According to the Central Bank of Kenya (CBK) Annual Bank Supervision Report 2023, the average ROA declined from 2.6% in 2022 to 2.4% in 2023, indicating diminishing efficiency in using assets to generate earnings (Karanja et al., 2023). In contrast, Tier I banks reported a higher average ROA of 3.1%, while Tier II and Tier III banks recorded lower averages of 1.9% and 1.5%, respectively, reflecting disparities in operational efficiency across the banking tiers (Mwangi, 2024). Regarding ROE, the sector average dropped from 23.6% in 2022 to 22.1% in 2023, with Tier I banks posting 25.3%, Tier II banks 18.4%, and Tier III banks 14.2%, showing that smaller banks struggle more to deliver returns to shareholders (Ndung'u, 2022). These performance challenges are driven by rising non-performing loans (NPLs) which stood at 14.8% of total loans in 2023, increased operational costs, reduced interest margins, and growing competition from fintech firms. These pressures underscore the need for commercial banks to embrace effective innovation strategies to sustain profitability and improve both ROA and ROE (Mwangi, 2024).

Innovation strategies are increasingly becoming a critical solution to improving the organizational performance of commercial banks. These strategies enable banks to enhance service delivery, reduce operational costs, improve customer satisfaction, and maintain competitiveness in a rapidly evolving financial environment (Nyamongo & Ndirangu, 2020). Various studies have been conducted in different parts of the world on innovation strategies and organization performance. For instance, Kanyi and Kihara (2022) conducted a study on the influence of innovation strategies on performance of internet service provider companies. Karanja et al. (2023) assessed on innovation strategies and organizational performance and Otiso et al. (2021) examined on the effects of innovative strategies on firm performance: role of government policy. However, none of these studies focused on product innovation strategy, process innovation strategy, digital innovation strategy and institutional innovation strategy on organizational performance of commercial banks in Kenya. To fill the highlighted gaps, the current study sought to determine the influence of innovation strategies (digital innovation strategy and institutional innovation strategy) on organizational performance of commercial banks in Kenya.

Objectives of the Study

The study sought to address both the general and specific objectives.

General Objectives

The general objective of the study is to determine the influence of innovation strategies on organizational performance of commercial banks in Kenya.

Specific Objectives

- i. To assess the influence of digital innovation strategy on organizational performance of commercial banks in Kenya.
- ii. To examine the influence of institutional innovation strategy on organizational performance of commercial banks in Kenya.

LITERATURE REVIEW

Theoretical Review

A theory is an organized rationalization of the relationship among various phenomena and provides a widespread explanation to an occurrence (Dawson, 2019). Various scholars have developed a wide range of literature for Financial Innovation. The study was mainly guided by various theories, including Constraint-Induced Financial Innovation Theory and Financial Intermediation Theory

Constraint-Induced Financial Innovation Theory

Constraint-Induced Financial Innovation Theory, developed by Silber (1983), suggests that financial innovations often emerge as a response to constraints or limitations within the existing financial system. These constraints can include regulatory barriers, economic inefficiencies, transaction costs, or limitations in access to capital (Hussain et al., 2023). Rather than being driven solely by technological advancement or profit motives, financial innovation is frequently induced by the need to overcome these barriers and improve financial services (Zahoro & Banele, 2024). For instance, when traditional banking regulations restrict certain activities, financial institutions or entrepreneurs may develop new instruments or structures to bypass these restrictions while still meeting market demands (Musyoka & Wabala, 2024). The theory underscores the adaptive nature of financial markets, where participants innovate out of necessity rather than choice. A historical example includes the creation of money market mutual funds in the United States during the 1970s, which was a response to interest rate ceilings imposed on bank deposits (Misati et al., 2022). These funds offered higher returns and became popular alternatives to traditional savings accounts, highlighting how regulation spurred innovation. Similarly, mobile money platforms in developing countries like Kenya (e.g., M-Pesa) arose due to limited access to formal banking services, illustrating how financial exclusion drove innovation in payment systems (Musa & Njeru, 2023). This theory was used to assess the influence of digital innovation strategy on organizational performance of commercial banks in Kenya

Financial Intermediation Theory

Financial Intermediation Theory, developed by Gurley and Shaw (1960), explores the role and significance of financial intermediaries—such as commercial banks, credit unions, insurance companies, and investment firms—in the economy (Nofianti et al., 2024). At its core, the theory posits that these intermediaries serve as a bridge between savers (those with surplus funds) and borrowers (those with a deficit of funds), facilitating the flow of capital in a way that enhances economic efficiency. Rather than individuals seeking out borrowers or investment opportunities themselves, which can be costly, time-consuming, and risky, financial intermediaries perform this function on their behalf, reducing transaction costs and information asymmetry (Donbesuur et al., 2025). One of the key contributions of financial intermediaries, as highlighted by the theory, is risk transformation. Intermediaries diversify investments and manage risks by pooling funds from numerous savers and allocating them across various borrowers and projects (Kibugo, 2020). This reduces the exposure of individual savers to the risk of any single borrower

defaulting. Moreover, intermediaries use their expertise to assess creditworthiness and monitor borrower behavior, which helps reduce the problem of moral hazard and adverse selection—two major issues in financial markets where parties may not have equal access to information (Omwanza & Jagongo, 2020).

Furthermore, the theory emphasizes the role of intermediaries in maturity transformation—the process of converting short-term liabilities (like savings deposits) into long-term assets (like loans) (Mugo, 2020). This function is crucial for supporting long-term investments while still giving depositors access to their funds on demand. It allows economies to balance the needs of liquidity for savers and long-term funding for businesses and governments (Nofianti et al., 2024). This theory was used to examine the influence of institutional innovation strategy on organizational performance of commercial banks in Kenya.

Conceptual Framework

A conceptual framework is an illustrative framework that shows the relationship between the study variables. It is intended to assist in academic research to develop awareness and understanding of the situation under scrutiny. In this study, the independent variables include: digital innovation strategy and institutional innovation strategy, while the dependent variable is organizational performance of commercial banks in Kenya.

Independent Variables

Dependent Variable

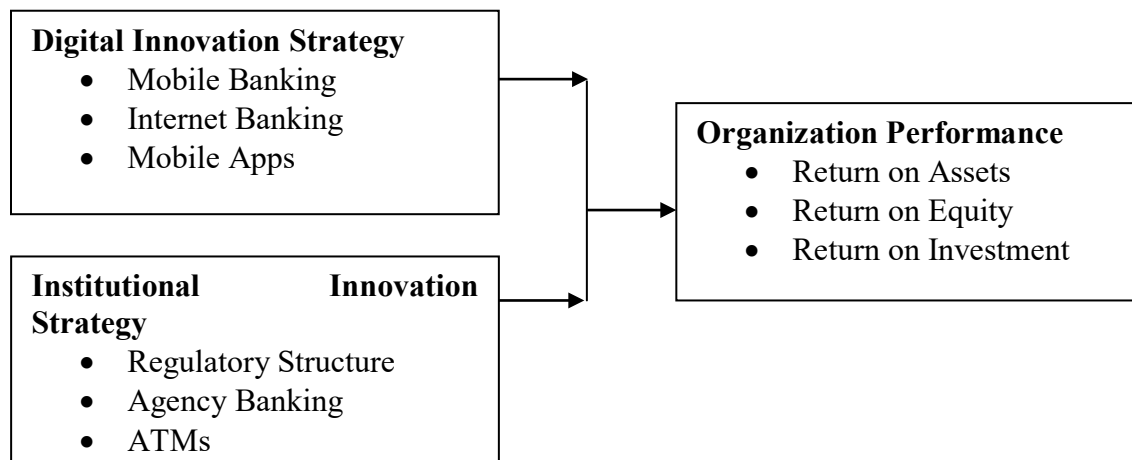


Figure 1: Conceptual Framework

Digital Innovation Strategy

Digital Innovation Strategy refers to a structured approach that organizations use to integrate emerging digital technologies into their operations, products, and services to create new value, improve efficiency, and stay competitive in a rapidly evolving digital landscape (Hussain et al., 2023). This strategy involves the adoption of tools such as artificial intelligence, cloud computing, mobile platforms, big data analytics, and blockchain to transform how an organization interacts with customers, manages internal processes, and delivers solutions (Zahoro & Banele, 2024). By leveraging digital innovation, organizations can enhance customer

experiences, streamline operations, introduce new business models, and respond more quickly to market changes. A well-executed digital innovation strategy enables continuous improvement, fosters agility, and positions the organization for sustainable growth in the digital age (Musyoka & Wabala, 2024). Mobile banking refers to the use of mobile devices such as smartphones and tablets to access and manage financial services. It allows users to perform a variety of functions including checking account balances, transferring funds, paying bills, and receiving transaction alerts, all from the convenience of their mobile phones (Misati et al., 2022). Mobile banking enhances accessibility by enabling customers to carry out transactions anytime and anywhere, reducing the need to visit physical bank branches. It supports financial inclusion by reaching individuals in remote areas and contributes to improved customer satisfaction through convenience, speed, and real-time interaction with banking services (Musa & Njeru, 2023).

Internet banking involves accessing banking services through a financial institution's website using a computer or internet-enabled device. It offers a wide range of functionalities, such as viewing account statements, applying for loans, managing investments, and making online payments (Hussain et al., 2023). Internet banking provides users with a secure and efficient platform to conduct their financial transactions without visiting a branch. It also helps financial institutions reduce operational costs by minimizing manual processes and paperwork (Zahoro & Banele, 2024). As more customers adopt online services, internet banking becomes a strategic channel for banks to offer tailored experiences and improve service delivery. Mobile apps are specialized software applications developed by financial institutions that users can download and install on their smartphones or tablets (Musyoka & Wabala, 2024). These apps offer a user-friendly interface for conducting banking transactions, receiving personalized alerts, and accessing a variety of financial tools and services. Mobile apps often come with features such as biometric login, QR code payments, budgeting tools, and integration with digital wallets (Misati et al., 2022). They enhance customer engagement by offering seamless navigation, real-time updates, and 24/7 accessibility. The use of mobile apps is a key aspect of digital transformation, allowing banks to meet customer expectations for fast, secure, and convenient services (Musa & Njeru, 2023).

Institutional Innovation Strategy

Institutional Innovation Strategy refers to the deliberate efforts by an organization to reform or redesign its internal structures, governance systems, policies, and cultural norms to enhance its adaptability, efficiency, and long-term performance (Donbesuur et al., 2025). This strategy focuses on transforming how an institution is organized and how it operates, often involving changes in leadership models, decision-making processes, regulatory compliance frameworks, and interdepartmental coordination (Kibugo, 2020). By fostering a culture of continuous improvement and encouraging openness to change, institutional innovation helps organizations respond effectively to external pressures, embrace new opportunities, and strengthen their resilience (Omwanza & Jagongo, 2020). It is essential for building agile, forward-thinking institutions capable of sustaining growth in a dynamic and competitive environment. Regulatory structure refers to the framework of rules, policies, and oversight mechanisms established by

authorities to guide and govern the operations of financial institutions (Mugo, 2020). This structure ensures that institutions operate in a sound, transparent, and ethical manner, safeguarding the interests of customers, investors, and the broader economy (Nofianti et al., 2024). A well-designed regulatory structure promotes financial stability, encourages fair competition, and minimizes systemic risks (Donbesuur et al., 2025). It also provides guidelines on capital adequacy, risk management, consumer protection, and anti-money laundering practices. Adherence to regulatory requirements strengthens institutional credibility, builds public trust, and ensures long-term sustainability in the financial sector (Kibugo, 2020).

Agency banking is a model that allows financial institutions to extend their services to underserved or remote areas through third-party agents such as retail shops, pharmacies, or petrol stations. These agents act on behalf of the institution to facilitate basic transactions like deposits, withdrawals, account opening, and bill payments (Omwanza & Jagongo, 2020). Agency banking enhances accessibility and financial inclusion by bringing banking services closer to communities that may lack access to traditional branches. It also reduces the operational costs of expansion while maintaining a broad presence in the market (Mugo, 2020). This approach has proven effective in reaching unbanked populations and supporting the growth of inclusive financial systems (Nofianti et al., 2024). ATMs (Automated Teller Machines) are electronic banking outlets that allow customers to perform basic financial transactions such as withdrawing cash, checking account balances, and transferring funds without the need for direct interaction with bank staff (Donbesuur et al., 2025). ATMs provide a convenient and efficient way for customers to access their money at any time. Over time, ATMs have evolved to include additional functions such as bill payments, mobile money services, and check deposits (Kibugo, 2020). By reducing congestion in banking halls and offering quick service, ATMs play a crucial role in improving customer experience and supporting the automation of banking services. They also help financial institutions optimize resources and extend their service reach with minimal infrastructure (Omwanza & Jagongo, 2020).

Empirical Review

Digital Innovation Strategy and Organizational Performance

Hussain et al. (2023) conducted a study on the effect of Roshan digital account: a digital innovation in Pakistan and its impact on customers' satisfaction. Multiple non-probability sampling techniques were used to collect data. SMART PLS 3.0 was applied to analyze the research model based on data collected from respondents through the questionnaire. The results show that all the variables except technology acceptance have an impact on customers' satisfaction while using RDA. The study concluded that digital innovation has become an essential element of daily life around the world.

Zahoro and Banele (2024) conducted a study on the influence of business support services on the performance of digital entrepreneurs: a case of the University of Dar es Salaam ICT innovation hub, Tanzania. The five Likert scale questionnaire was designed for the collection of quantitative data, while the semi-structured interview was utilized for the collection of qualitative data for triangulation purposes. Furthermore, data were analyzed using multiple regression method and

content analysis method. Findings indicate that business services including business development assistance, marketing assistance, mentoring and funding positively and significantly contribute to the performance of digital entrepreneurs. The research concluded that constructive role of business support services, namely business development assistance, marketing assistance, mentoring and funding positively influence growth of digital incubates.

Musyoka and Wabala (2024) conducted a study on the effect of digital innovation capabilities and performance of private higher education institutions in Nairobi City County, Kenya. A stratified random sampling technique was used to select a sample size of 170 respondents from the 33 PHEIs in Nairobi City County, Kenya. Data collection was conducted using a structured questionnaire that was distributed online to the consented eligible participants. The analysis findings revealed that influence of top management and performance of private higher education institutions in Nairobi City County indicated a strong positive correlation which was statistically significant. The study concludes that institutions foster a strong culture of innovation tend to exhibit enhanced performance in several areas, including academic excellence, operational efficiency, and student satisfaction.

Misati et al. (2022) conducted a study on the effect of digital financial innovation enhance financial deepening and growth in Kenya. The study utilized autoregressive distributed lag model, which is preferable over other time series methods as the model allows application of cointegration tests to time series with different integration orders and is flexible to the sample size including small and finite. The main findings of this paper are as follows: first, there is evidence of a positive relationship between digital financial innovation and financial depth with the strongest impact emanating from Internet usage and mobile financial services and the lowest impact from bank branches; second, the results reveal a significant positive impact of financial depth on economic growth consistent with the supply-leading finance theory. The study concluded that in the recent past, financial innovation has become an integral part of the modern financial system, accounting for nearly all the changes occurring in the financial system

Musa and Njeru (2023) conducted a study on the effect of digital financial innovation on the financial performance of small and medium enterprises in Nairobi City Centre, Kenya. The primary research instrument used was a questionnaire, which allows the collection of quantitative and qualitative data on SMEs' utilization and experiences with digital financial innovations. The results revealed that digital payment systems, mobile banking, and agent banking did not have statistically significant relationships with SMEs' financial performance, as evidenced by their respective p-values. The conclusion implies that SMEs in Nairobi City Centre do not experience significant improvements in their financial performance solely by adopting digital payment systems.

Institutional Innovation Strategy and Organizational Performance

Nofianti et al. (2024) conducted a study on the effect of cash waqf innovation in Islamic financial institutions and its governance issues, case studies: Indonesia, Malaysia, Türkiye. This study adopts a qualitative approach with an interpretative perspective, drawing on ecology theory and Ibn Khaldun's thought. The research method includes conducting literature reviews and

interviews to explore the concept and significance of cash waqf, the offerings of Islamic financial institutions and the mechanisms for good governance of cash waqf to bolster the proposed model. The finding shows a model of cash waqf governance that outlines the relationships and interactions with the goal of advancing cash waqf. The study concluded that by adopting ecology theory that observes the relationships between entities, systems and their environment, the study shows avatars that are referred as different representations in different parts of their geographical range or at different times in their life history. Donbesuur, Ampong and Yirenkyi (2025) conducted a study on the effect of technological innovation, organizational innovation and international performance of SMEs: The moderating role of domestic institutional environment. The study test this model using structural equation modeling on a sample of 204 internationalized SMEs operating in Ghana. The findings from the analysis show that high levels of organizational and technological innovation jointly improve SMEs' international performance. The study conclusions contribute to the innovation, institutional environment, and international business literature in several ways.

Kibugo (2020) conducted a study on the effect of financial innovations on performance of microfinance institutions in Nakuru town, Kenya. The target population comprised of all employees working with MFIs registered with AMF-Kenya and the accessible populations were 187 employees working with MFIs registered with AMF in Nakuru town, Kenya. From the findings, the research concluded that there is a supervisory framework that monitors MFIs. It is was also concluded that innovations can be a source of competitive advantage if a firm understands customer needs, competitors' actions and technological development and act accordingly to stay at par with rivals.

Omwanza and Jagongo (2020) conducted a study on the effect of financial innovations and financial performance of microfinance institutions in Kenya: A theoretical review. The target population comprises of all employees of microfinance institutions (MFIs) in Kenya currently registered with the Association of Microfinance (AMF-Kenya), and the accessible population is 8,789 employees currently working with registered MFIs in Kenya. The study found that the reviewed literature depicts strong evidence of the financial innovation and financial performance of microfinance institutions in Kenya. The paper concludes that financial innovation affects financial performance. Mugo (2020) conducted a study on the effect of financial innovation on the growth of micro-finance institutions in Kenya. A survey was conducted targeting all thirty-four registered MFIs in Kenya. After data collection, the research data was analyzed in a correlation design using the SPSS program. The research findings showed that most Micro Finance Institutions (MFIs) have innovated new services like mobile banking, business accounts, SME loans, school fee loans, financial trainings and partnerships. The research concluded that financial innovation by MFIs lead to an aggregate growth of firms in various dimensions like number of products, market share, loan sales and the overall profitability.

METHODOLOGY

Research Design

Research design is the overall plan or blueprint that guides the process of collecting, analyzing, and interpreting data in a study. It specifies the structure and strategy to be followed in answering research questions (Creswell & Creswell, 2018). This study used a descriptive research design. Lavrakas (2019) described a descriptive research design as a method of collecting data systematically from a representative sample of individuals using instruments composed of closed-ended and/or open-ended questions, observations, and interviews. This design is widely used for non-experimental research designs across various fields of study to collect very large amounts of survey data from a sample representative and individuals sampled from the targeted population.

Target Population

Hyndman (2018) describes a population as the entire collection of ‘things’ in which we are interested. This study targeted all the commercial banks in Kenya, which are 39 according to CBK (2025). In each bank, the study targeted 5 respondents, comprising the Branch manager, Operations manager, Digital and channels manager, Innovation manager and HR manager. The target population was 195 from all 39 commercial banks operating in the country. The choice of these banks was founded on the fact that they are the largest in terms of assets and essentially has adopted and fully integrated bank innovation strategies into their financial operations. Units of observation were functional managers: Human resource managers, operations managers, digital managers, innovation managers, and the branch managers. The researcher used the census method. A census is a systematic process of collecting, compiling, and analyzing data from every member of a population, rather than from a sample or subset. It involves a complete enumeration, meaning that information is gathered from all units, individuals, or elements within the target population (Kothari, 2018).

Table 1: Target Population

Category	Target Population
Branch manager	39
Operations manager	39
Digital and channels manager	39
Innovation manager	39
HR manager	39
Total	195

Data Collection Instruments

The study collected both primary and secondary data. For primary data, the study employed a self-administered structured questionnaire; on the other hand, the study used a secondary data collection sheet to collect secondary data. According to Mugenda & Mugenda (2019), a questionnaire is a research instrument consisting of a list of questions and other prompts for the purpose of gathering information from respondents. According to Kothari (2018), the questionnaires help in collecting potential information from a large portion of a group. The use

of a questionnaire assists in quickly collecting information from the respondents, and this represents and covers the study variables. The questionnaires consisted of structured questions, which were on a Likert scale of 5 points.

Pilot Test

The study carried out a pilot test to assess the validity and reliability of the questionnaires in gathering the data required for purposes of the study. The study sampled a pilot of 10% (21 respondents), which is within the range of 1-10% as recommended by Mugenda & Mugenda, (2019). Kombo and Tromp (2017) and Kothari (2018) describe a pilot test as a replica and rehearsal of the main survey. Dawson (2019) states that pilot testing assists researchers in seeing if the questionnaires have obtained the required results. According to Polit and Beck (2019), a pilot study or test is a small-scale version, or trial run, done in preparation for a major study. The purpose of a pilot test is not to test research hypotheses, but rather to test protocols, data collection instruments, sample recruitment strategies and other aspects of a study in preparation for a larger study.

Data Processing and Analysis

The collected data was subjected to the relevant data cleaning, processing and analysis, respectively. A factor analysis on both the dependent and independent variable items were conducted upon which reliability analysis for the retained items was computed. Secondly, correlation coefficients between independent variables (digital innovation and institutional innovation) and dependent variable (organization performance) elements obtained from factor analysis were computed to explore possible strengths and directions of relationships. Data processing and analysis was done by the use of the Statistical Package for Social Sciences (SPSS) Version 24 software. Data analyses consisted of both descriptive statistics and inferential statistics. Descriptive statistical tools, which included means and standard deviations on the other hand, inferential statistics in the form of Pearson's correlation coefficient and multiple regression analysis. The result of the analysis was presented in the form of tables.

The following regression model guided the study

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where:

Y is organizational performance of commercial banks in Kenya

β_0 is Constant.

X1 is Digital Innovation strategy

X2 is Institutional Innovation strategy

ε is Error term

β_1 and β_2 are Regression coefficients of independent variables.

The significance of the relationship between each of the independent variables and organizational performance of commercial banks in Kenya was established using the f-test. The significance level being, 0.05 meaning 95% confidence level. In this study coefficient of correlation (r) and coefficient of determination (r^2) were used to determine the nature and

magnitude of the relationship. Correlation coefficient was used to measure the degree of relationship innovation on organizational performance of commercial banks in Kenya.

RESULTS AND DISCUSSIONS

Response Rate

The researcher sampled 195 respondents who were each administered the questionnaires. From the 195 questionnaires, 183 were filled and returned, hence a response rate of 89.3%. The response rate was considered suitable for making inferences from the data collected. As indicated by Zikmund et al.(2018), a response rate that is above fifty percent is considered adequate for data analysis and reporting, while a response rate that is above 70% is classified as excellent. Hence, the response rate of this study was within the acceptable limits for drawing conclusions and making recommendations.

Descriptive Statistics

Digital Innovation Strategy and Organizational Performance

The first specific objective of the study was to assess the influence of digital innovation strategy on organizational performance of commercial banks in Kenya. The respondents were requested to determine their level of agreement on various statements related to digital innovation strategy and organizational performance of commercial banks in Kenya. The results were as shown in Table 2.

From the results, the respondents agreed that mobile banking innovations significantly improves customer access to financial services (M=3.871, SD=0.663). In addition, the respondents agreed that the mobile banking platform contributes to increased customer engagement and satisfaction (M=3.858, SD=0.714). Further, the respondents agreed that the internet banking services provided by the organization are secure, fast, and reliable (M=3.839, SD=0.711).

From the results, the respondents agreed that the organization's internet banking system offers a wide range of features that meet the needs of customers (M=3.822, SD=0.867). In addition, the respondents agreed that the mobile app enhances the overall customer experience (M=3.818, SD=0.598). The respondents also agreed that the mobile app's features are regularly updated to ensure customers have access to the latest tools and functionalities (M=3.786, SD=0.751).

Table 2: Digital Innovation Strategy and Organizational Performance

	Mean	Std. Deviation
Mobile banking innovations significantly improves customer access to financial services.	3.871	0.663
The mobile banking platform contributes to increased customer engagement and satisfaction.	3.858	0.714
The internet banking services provided by the organization are secure, fast, and reliable.	3.839	0.711
The organization's internet banking system offers a wide range of features that meet the needs of customers.	3.822	0.867
The mobile app enhances the overall customer experience.	3.818	0.598

The mobile app's features are regularly updated to ensure customers have access to the latest tools and functionalities. 3.786 0.751

Aggregate 3.832 0.717

Institutional Innovation Strategy and Organizational Performance

The second specific objective of the study was to examine the influence of institutional innovation strategy on organizational performance of commercial banks in Kenya. The respondents were requested to indicate their level of agreement on various statements related to institutional innovation strategy and organizational performance of commercial banks in Kenya. The results were as shown in Table 3.

From the results, the respondents agreed that the regulatory framework facilitates innovation and allows for more efficient operations (M=3.894, SD=0.722). In addition, the respondents agreed that their organization successfully navigates regulatory changes to enhance operational effectiveness and customer trust (M=3.881, SD=0.572). Further, the respondents agreed that agency banking helps expand their reach to underserved customers and regions (M=3.873, SD=0.695).

From the results, the respondents also agreed that the adoption of agency banking significantly improves the availability and accessibility of banking services (M=3.855, SD=0.709). In addition, the respondents agreed that the organization's ATM strategy effectively reduces wait times at branches, increasing overall efficiency (M=3.846, SD=0.768). The respondents also agreed that the expansion of ATM networks significantly improves customer access to banking services at their convenience (M=3.832, SD=0.887).

Table 3: Institutional Innovation Strategy and Organizational Performance

	Mean	Std. Deviation
The regulatory framework facilitates innovation and allows for more efficient operations.	3.894	0.722
Our organization successfully navigates regulatory changes to enhance operational effectiveness and customer trust	3.881	0.572
Agency banking helps expand our reach to underserved customers and regions.	3.873	0.695
The adoption of agency banking significantly improves the availability and accessibility of banking services.	3.855	0.709
The organization's ATM strategy effectively reduces wait times at branches, increasing overall efficiency.	3.846	0.768
The expansion of ATM networks significantly improves customer access to banking services at their convenience	3.832	0.887
Aggregate	3.863	0.726

Performance of commercial banks in Kenya

Performance of commercial banks in Kenya was measured through the use of return on Assets, return on equity, and return on Investment in a period of 5 years from 2021 to 2025. The results were as shown in the figures 2,3 and 4.

Return on Assets

The study collected data on return on Assets of commercial banks in Kenya for a period of 5 years from 2021 to 2025. The results were as shown in Figure 2. From the results, return on Assets of commercial banks in Kenya improved by 19% in the year 2021, in the year 2022, return on Assets increased by 21% and slightly increased to 22% in 2023 before increasing to 23% and 25% in 2024 and 2025, respectively.

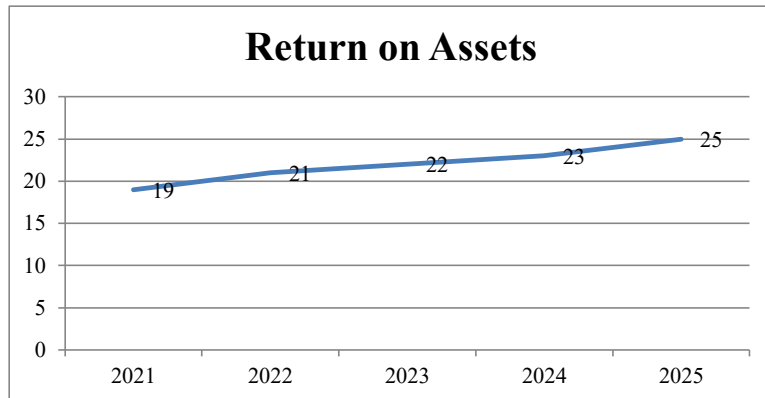


Figure 2: Return on Assets

Return on Equity

The study also collected data on return on Equity of commercial banks in Kenya for a period of 5 years from 2021 to 2025. The results were as shown in Figure 3. From the results, the return on Equity of commercial banks in Kenya improved by 17% in the year 2021, in the year 2022, the return on Equity increased by 21% and slightly increased to 22% in 2023 before increasing to 23% and 24% in 2024 and 2025, respectively.

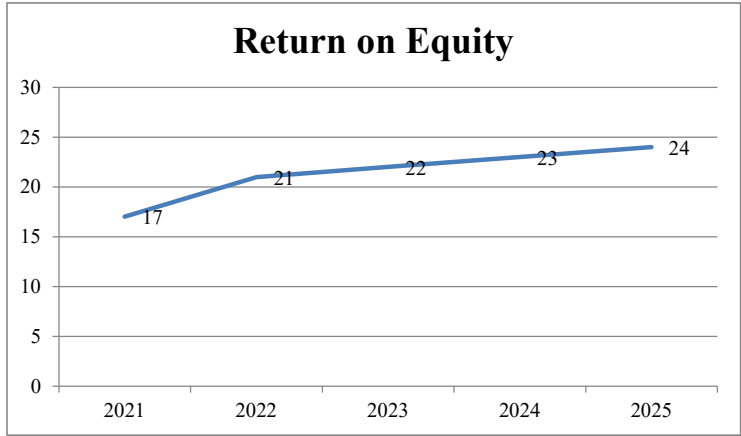


Figure 3: Return on Equity

Return on Investment

The study further collected data on the return on Investment of commercial banks in Kenya for a period of 5 years from 2021 to 2025. The results were as shown in Figure 4. From the results, the return on Investment of commercial banks in Kenya improved by 23% in the year 2021, in the year 2022, the return on Investment increased by 25% and slightly increased to 26% in 2023 before increasing to 28% and 30% in 2024 and 2025, respectively.

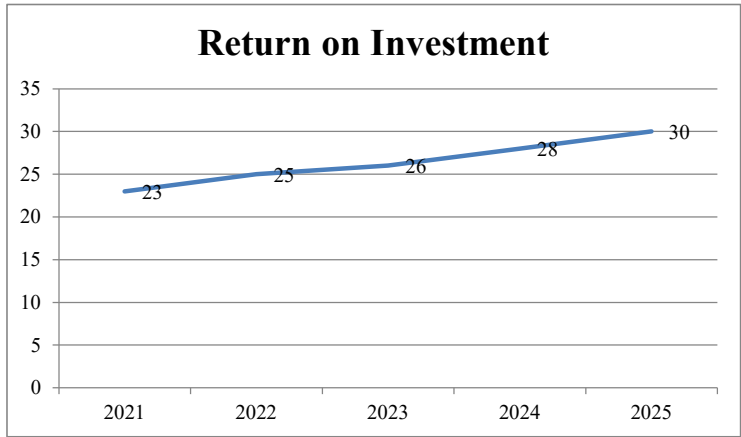


Figure 4: Return on Investment

Inferential Statistics

Inferential statistics, such as correlation analysis and regression analysis were used to assess the relationships between the independent variables (digital innovation strategy and institutional innovation strategy) and the dependent variable (organizational performance of commercial banks in Kenya).

Correlation Analysis

This research adopted Pearson correlation analysis to determine how the dependent variable (organizational performance of commercial banks in Kenya) relates to the independent variables (digital innovation strategy and institutional innovation strategy).

Table 4: Correlation Coefficients

		Organization Performance	Digital Innovation Strategy	Institutional Innovation Strategy
Organization Performance	Pearson	1		
	Correlation			
	Sig. (2-tailed)			
Digital Innovation Strategy	N	183		
	Pearson	.856**	1	
	Correlation			
Institutional Innovation Strategy	Sig. (2-tailed)	.001		
	N	183	183	
	Pearson	.864**	.276	1
	Correlation			
	Sig. (2-tailed)	.000	.059	
	N	183	183	183

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

From the results, there was a very strong relationship between digital innovation strategy and organizational performance of commercial banks in Kenya ($r = 0.856$, $p\text{-value} = 0.001$). The relationship was significant since the $p\text{-value} 0.001$ was less than 0.05 (significance level). The findings are in line with the findings of Hussain, Amin and Rasool (2023), who indicated that there is a very strong relationship between digital innovation strategy and organization performance.

The results also revealed that there was a very strong relationship between institutional innovation strategy and organizational performance of commercial banks in Kenya ($r = 0.864$, $p\text{-value} = 0.000$). The relationship was significant since the $p\text{-value} 0.000$ was less than 0.05 (significance level). The findings are in line with the findings of Donbesuur et al. (2025), who indicated that there is a very strong relationship between institutional innovation strategy and organization performance.

Regression Analysis

Multivariate regression analysis was used to assess the relationship between independent variables (digital innovation strategy and institutional innovation strategy) and the dependent variable (organizational performance of commercial banks in Kenya).

Table 5: Model Summary

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	.867	.752	.751	.10129

a. Predictors: (Constant), digital innovation strategy and institutional innovation strategy

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The R-squared for the relationship between the independent variables and the dependent variable was 0.752. This implied that 75.2% of the variation in the dependent variable (organizational performance of commercial banks in Kenya) could be explained by independent variables (digital innovation strategy and institutional innovation strategy).

Table 6: Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	88.651	2	43.326	267.444	.002 ^b
Residual	29.217	180	.162		
Total	117.868	182			

a. Dependent Variable: organizational performance of commercial banks in Kenya

b. Predictors: (Constant), digital innovation strategy and institutional innovation strategy

The ANOVA was used to determine whether the model was a good fit for the data. F calculated was 267.444 while the F critical was 3.046. The p-value was 0.002. Since the F-calculated was greater than the F-critical and the p value 0.002 was less than 0.05, the model was considered a good fit for the data. Therefore, the model can be used to predict the influence of digital innovation strategy and institutional innovation strategy on organizational performance of commercial banks in Kenya.

Table 7: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.322	0.085		3.788	0.000
Digital innovation strategy	0.376	0.097	0.375	3.876	0.001
Institutional innovation strategy	0.388	0.102	0.389	3.804	0.000

The regression model was as follows:

$$Y = 0.322 + 0.376X_1 + 0.388X_2 + \varepsilon$$

According to the results, digital innovation strategy has a significant effect on organizational performance of commercial banks in Kenya ($\beta_1=0.376$, p value= 0.001). The relationship was

considered significant since the p-value 0.001 was less than the significance level of 0.05. The findings are in line with the findings of Hussain, Amin and Rasool (2023), who indicated that there is a very strong relationship between digital innovation strategy and organization performance.

In addition, the results revealed that institutional innovation strategy has a significant effect on organizational performance of commercial banks in Kenya ($\beta_2=0.388$, p value= 0.000). The relationship was considered significant since the p-value 0.000 was less than the significance level of 0.05. The findings are in line with the findings of Donbesuur et al. (2025), who indicated that there is a very strong relationship between institutional innovation strategy and organization performance

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The study concludes that a digital innovation strategy has a positive and significant effect on organizational performance of commercial banks in Kenya. Findings revealed that mobile banking, internet banking and mobile apps influences organizational performance of commercial banks in Kenya.

The study also concludes that institutional innovation strategy has a positive and significant effect on organizational performance of commercial banks in Kenya. Findings revealed that regulatory structure, agency banking and ATMs influences organizational performance of commercial banks in Kenya.

Recommendations

The study recommends that the management of commercial banks in Kenya should prioritize the development and continuous improvement of digital banking platforms as a key digital innovation strategy to enhance organizational performance. By offering secure, user-friendly, and feature-rich digital channels, banks can expand access to financial services, increase customer convenience, and tap into previously underserved markets.

The study also recommends that the management of commercial banks in Kenya should implement agile organizational structures and collaborative cultures as part of their institutional innovation strategy to enhance organizational performance. By shifting from rigid hierarchical models to more flexible, team-based, and adaptive frameworks, banks can respond more effectively to market changes, regulatory demands, and technological disruptions.

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