

# EFFECTS OF INNOVATION STRATEGIES ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KITALE TOWN, KENYA

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**Abstract:** The need for innovation is crucial for commercial banks operating in a continuous uncertain and competitive environment. Most importantly, to survive and succeed in the current competitive global financial environment, commercial banks need to be innovative by producing a regular stream of innovations so as to gain competitive advantage. The main purpose of the study was to determine the influence of innovation strategies on financial performance of commercial banks in Kitale town, Kenya. The specific objectives for the study was to; determine influence automated service, determine influence of bank mergers, determine influence of bank product diversification and determine influence of agency banking on financial performance of commercial banks in Kitale town, Kenya. The study was anchored on Diffusion of Innovations Theory, Resource Based View Theory, Economic Theory and Agency theory. The study used descriptive research design. The target population of the study was 180 respondents. Primary data was collected through structured questionnaires. A pilot study was carried out in KCB Eldoret Main (Uasin Gishu County) and a group of 18 employees was selected to test the reliability of the research instrument. Internal consistency techniques were applied using Cronbach's Alpha to test the research instrument. Data was analysed using both descriptive and inferential statistics. Descriptive statistics such as standard deviation, mean score, frequencies and percentages for each variable was calculated and tabulated using frequency distribution tables. Inferential statistics used multiple regression analysis to determine the influence of the independent variable, it was used to measure the relative influence of each dependent variable based on its covariance dependent variable and was useful in forecasting. The study findings showed that digital financial services have a significant effect on financial performance of commercial banks ( $\beta_1=0.282$ ;  $P=0.004<0.05$ ); bank mergers have significant effect on financial performance of commercial banks ( $\beta_2=0.237$ ;  $P=0.009<0.05$ ); bank product diversification has significant influence on financial performance of commercial banks ( $\beta_3=0.181$ ;  $P=0.004<0.05$ ) and agency banking has significant effect on financial performance of commercial banks ( $\beta_4=0.295$ ;  $P=0.000<0.05$ ). In conclusion digital financial services enables commercial banks identify innovations which enhances the commitment amongst staff hence increase daily transaction. Bank mergers enabled commercial banks increase the capital structure that is sufficient to facilitate successfully financial operations. Bank product diversification provides wide range of customer services that attract potential market and agency banking has enabled local customers' access the banking services that would have not been readily accessed due to differences in geographical locations. The study recommends to the bank managers to give more emphasis on digital financial services since transactions has accumulated to a higher index and majority of the customers prefers automated service for it comes with efficiency. The study suggests that a future research can be carried on the challenges facing the implementation of innovation strategies on financial performance of commercial banks in Kenya.

**Keywords:** Digital finance services, bank mergers, bank product diversification and financial performance.

## 1. INTRODUCTION

### Background of the study

Innovation strategy gives a clear direction and concentrates the effort of the whole organization on a common innovation end on the financial performance of commercial banks (Gachimu & Njuguna, 2017). Currently, most of the commercial banks are adopting products innovations, process innovations, market innovations and stimulus innovations and these innovation strategies should specify how the significance of innovation was communicated to all the employees to attain their buy-in and must openly reflect the significance that management places on innovation. The management of high performing institutions was tangibly and visibly committed to new product development and overtly formulated and communicated the institution's new product development strategy (Mohamud & Mungai, 2019). Financial performance of commercial banks is the extent to which objectives of the banks was met or have been met. The banks financial performance subject to how effectively a firm uses its assets from its principal role of conducting business and its subsequent generation of revenues. Financial performance can also refer to the general well-being of a firm as far as finance is concerned over a certain period of time. Financial performance focuses more items that affect the financial statements or reports of a firm directly. The financial performance analysis can deal with items such as dividend growth, sales turnover, capital employed, asset base among others about the firm (Yahaya & Lamidi, 2015).

Innovation strategies in finance are the act of creating and then popularizing new financial instruments as well as new financial technologies, institutions, and markets. Financial Innovation involves the design, the development and the implementation of innovative financial instruments and processes, and the formulation of creative solutions to problems in finance. Innovation is an essential element for economic progress of a country and competitiveness of an industry. Financial performance can be measured using the following repayment rate, portfolio quality ratios, arrears ratio rate, portfolio rate and delinquent borrowers. Repayment rate measures the amount of payment received with respect to the amount due. Portfolio quality ratios; involves the arrears rate portfolio risk and the ratio delinquent borrowers. The arrears ratio rate shows how much of the loans have become due and has not been received (Idun & Aboagye, 2014).

### Global Perspective of innovation strategies on financial performance of commercial banks

Innovation strategies are considered as an effective way to improve financial performance of commercial banks due to the resource constraint issue facing commercial banks. Financial innovations can be grouped as new products (e.g., adjustable rate mortgages; exchange-traded index funds); new services (e.g., on-line Securities trading; Internet banking); new "production" processes (e.g., electronic recordkeeping for securities; credit scoring); or new organizational forms (e.g., a new type of electronic exchange for trading securities; Internet-only banks). Financial innovation has not only opened up new opportunities for the sector participants, but also increased new market players arising from new products in the financial market (Cherotich, Sang, Mutungú & Shisia, 2015).

In china, innovation strategies generally do seem to have positive effects in raising financial performance of financial banks. Innovation strategies use a four equation model, to link the innovation decision of firms to their performance through the impact of innovation input on innovation output and the innovation output on productivity and better performance. Their findings confirm the positive relationship between innovation activities and productivity at the firm level and provide further evidence on the relationship between size and innovation activities (Rajapathirana, & Hui, 2018). In Canada, Innovation strategies are important strategies that can be used by commercial banks to grow new markets, to expand their market share and gain a competitive advantage. Getting from their motivation from the competitiveness in the dynamic global markets, many organizations are embracing innovation as an important way to stay relevant in a competitive market. The dynamic changing technologies and the increased competition keep on eroding the value of company's products and services (Hinterhuber & Liozu, 2017). An innovation strategy, then, becomes a source of competitive advantage for firms that strive to achieve a high level of innovation. The adoption of formal diversity practices reduced turnover. While there was not a main effect of these practices on return on earnings, a strategic contingency relationship was supported: diversity practices correlated with improved productivity and market performance for firms following innovation strategies (Hinterhuber & Liozu, 2017). Innovation in commercial banking is the unanticipated improvement in the array of financial products and instruments that are stimulated by unexpected change in customer needs and preferences, tax policy, technology and regulatory impulses. The developments in the financial sector have not only led to the increase in the number of financial institutions, but also the development in level

of sophistication with new payment systems and asset alternatives to holding money. This has resulted mainly from technological advancement and increase in competition as the number of institutions increase. Developments in payment systems have started to create close substitutes for hard currency, thus affecting a core part of banking (Sarkar & Kumar, 2017).

### **Regional Perspective of innovation strategies on financial performance of commercial banks**

In Africa, innovativeness in the commercial bank sector has not only opened up new opportunities for the sector participants, but also increased new market players arising from new products in the financial market. These developments have increased the range of financing and investment opportunities available to economic agents besides changing the role of banks with expanded bank product diversification choices in terms of portfolio and sources of financing. Such developments affect the speed and strength of the channels of monetary policy transmission mechanism in the economy. As financial markets become more liquid and complete, changes in official interest rates are more readily transmitted to the whole term structure and more generally to financial asset prices (Tidd & Bessant, 2018). In Nigeria, innovativeness in the banking sector has an increasing competition in the national and international banking markets, the changeover towards monetary unions and the new technological innovations herald major changes in banking environment, and challenge all banks to make timely preparations in order to enter into new competitive financial environment. The political factors were a major determinant of performance of Nigerian banks. Organizational innovation entails how organizations handle work procedures for example client relationships both internally as well as externally in ways that promote competitive advantage. Organizational innovations help firms to deepen their employee engagement levels leading improved productivity and reduced administrative costs (Biswas, 2017).

In South Africa commercial banks have been able to create competencies and in order to sustain them the banks have invested in online marketing, mobile banking, paperless banking and customized customer service. This has helped them to come up with favorable core banking systems, marketing strategies, products as well as organization innovation. This has improved the financial performance of financial institution. This can be found through increased number of customers, increased profit growth and development of new banking products. Due to the improved financial performance, the financial inclusion has improved especially in developing countries. As a result of the rapidly changing technology and improved financial performance commercial banks have employed skilled and knowledgeable workers who are innovative to and able to deliver change (Anoop, 2016). In Uganda, commercial banks offer a wide range of corporate financial services that address the specific needs of private enterprise. Innovation has been a crucial factor for commercial banks in Uganda. The ability of the financial companies to positively contribute to the economy depends in part on the quality and quantity of the products they offer to their customers. In the past decade the number of channels for delivery of financial services has increased. Traditional methods are no longer popular and instead new innovative methods such as e-banking, innovative Automated Teller Machine (ATM) methods and digital financial services are being used to deliver financial services (Hewitt, Ray, Jewitt, & Clifford, 2018).

### **Local Perspective of innovation strategies on financial performance of commercial banks**

Financial performance of commercial banks measures the overall financial health of a bank and its ability to create value to its shareholders. Some of the financial performance indicators include but not limited to return on equity, revenue from operations, after tax profits, operating income, return on assets and cash flows. Financial services industry performance revolves around a combination of margin growth rates against set budgets, financial ratios analysis, and comparison with similar firms in the same industry. Basically, the modern literature on commercial banks performance defines the goal of lending institutions to be that of a firm getting satisfactory returns with minimal risks taken to receive such returns. The common conventional link between risk and return outlines that; high risk investments should attract high rates of return. In this regard, it has been a tradition to evaluate bank performance using risk and return (Kartadumena & Rodgers, 2019). The banking sector has reported massive growth and development in recent years. This is attributable to the effective regulation and reforms affected by the central bank after many banks went into bankruptcy in the 1990s, much of the growth in the banking sector has been witnessed in branch network expansion, growth in capitalization and asset base and the expansion of some of the banks regionally. The banks have also been in the frontline of automating their functions to give their customers good service. Kenyan banks have engaged in product innovation where internet banking and digital financial services have taken root in various local banks. As the Kenyan financial market is expanding, banks

have realized that they are facing more and more competition from other thus forcing them to increase their marketing, lower charges such as lending rates and increase their presence.

### Statement of the Problem

The need for innovation is crucial for commercial banks operating in a continuous uncertain and competitive environment (Gakuo & Rotich, 2017). Most importantly, to survive and succeed in the current competitive global financial environment, commercial banks need to be innovative by producing a regular stream of innovations so as to gain competitive advantage. Many banks have at some point undertaken some form of incremental innovative initiatives (Chege, 2017). Despite the evident impacts of the different innovation types on the business performance of financial institutions, these impacts are insufficiently tested. Additionally, there is imperfect information about the motivation for innovation (Gakuo & Rotich, 2017). Empirical findings from other researches relating innovation and business performance have been found inconclusive (Nicholas, 2018). Other studies relating innovations and bank's performance have yielded varied results. Although studies have been carried out on the contribution of financial innovation to the effectiveness of the monetary policy; few studies have sought to relate financial innovation to financial performance in the banking sector (Chipeta & Muthinja, 2018). Several prevailing researches likewise assume a basic methodology to the innovation-performance association failing to put into consideration the antecedents to innovation strategies on financial performance of commercial banks and the sum of which might impact this association (Lukango, 2017). Innovation studies have been based on the financial markets with little emphasis on the banking sector. This research paper intends to fill the research gap by determine the influence of innovation strategies on financial performance of commercial banks in Kitale town, Kenya.

### Objectives of Study

#### General Objective

The main purpose of the study was to determine the influence of innovation strategies on financial performance of commercial banks in Kitale town, Kenya.

#### Specific Objectives of the Study

- I. To determine influence of digital financial services on financial performance of commercial banks in Kitale town, Kenya
- II. To determine influence of bank mergers on financial performance of commercial banks in Kitale town, Kenya
- III. To determine influence of bank product diversification on financial performance of commercial banks in Kitale town, Kenya
- IV. To determine influence of agency banking on financial performance of commercial banks in Kitale town, Kenya

### Research Questions

- I. What is the influence of digital financial services on financial performance of commercial banks in Kitale town, Kenya
- II. What is the influence of bank mergers on financial performance of commercial banks in Kitale town, Kenya
- III. What is the influence of bank product diversification on financial performance of commercial banks in Kitale town, Kenya
- IV. What is the influence of agency banking on financial performance of commercial banks in Kitale town, Kenya

### Significance of the Study

This study was significant to the management on financial performance of commercial banks as they was able to know for certain effect of government policies, contribution of national stock exchange, the effect of inflation and the effect of political stability and what innovation strategies to be adopted in order to achieve high financial performance. This study was significant to policy makers who also find the results of this study very invaluable, as it was able to significant of adoption of innovation strategies in order to achieve high returns and improve on productivity in the banking industry.

The banking regulator in Kenya will also find the results of this study very invaluable, as it was able to ascertain the extent of competition in the industry and the innovation strategies that mitigate the effect of such competition and influence achievement of better performance in commercial banks.

### Scope of Study

The study seeks to influence of innovation strategies on financial performance of commercial banks in Kitale town, Kenya. The study was carried out in the selected commercial banks in Kitale town. The study focused on four variables; automated trading system, influence of bank mergers, influence of bank product diversification and influence of agency banking on financial performance of commercial banks. The study was carried out for a period of three months.

## 2. LITERATURE REVIEW

### Introduction:

Chapter two presents literature review that discusses on the effect of privatization of state owned corporations on Financial Performance. This involves reviewed journals, articles, theses.

### Theoretical Review of Literature

This study was guided by the following study theories; Diffusion of Innovations Theory, Resource Based View Theory, Economic Theory and Modern Economic Theory.

### Diffusion of Innovations Theory

Diffusion of innovations is a theory profound by Everett Rogers in 1962. The theory seeks to explain how, why, and at what rate new ideas and technology spread. Rogers argues that diffusion is the process by which an innovation is communicated over time among the participants in a social system. For Dedrick and West (2003), adoption is a decision of “full use of an innovation as the best course of action available” and rejection is a decision “not to adopt an innovation”. Rogers defines diffusion as “the process in which an innovation is communicated through certain channels over time among the members of a social system. Assumption of the theory discuss that innovation diffusion research has attempted to explain the variables that influence how and why users adopt a new information medium, such as the Internet. Opinion leaders exert influence on audience behavior via their personal contact, but additional intermediaries called change agents and gatekeepers are also included in the process of diffusion. Innovations are often adopted by organizations through two types of innovation decisions: collective innovation decisions and authority innovation decisions. The collective decision occurs when adoption is by consensus. The authority decision occurs by adoption among very few individuals with high positions of power within an organization (Dedrick & West, 2003).

Criticism of the theory has identified several gaps in the theory; Organizations are described as a social system, but within organizations, departments or teams can also serve as social systems. The unique issues and elements of departments or teams within a larger organizational context are not addressed in terms of how these boundaries affect the adoption of innovation. In the adopters' categories of this theory, it is noted that the category of a set of adopters is omitted. Rogers fails to realize some adopters who have not been featured in the adoption of other products such as the lack of identifying the adoption based on process innovation and marketing innovation. The weakness of the theory is that it covers much on technological adoption and neglects other types of innovation. The theory is relevant to this study in that it outlines the stages of innovation, types of innovation and the role of social systems in spreading innovations. This relates to the independent variable influence automated trading system. Diffusion of Innovations Theory is significant to the study since it explains phenomenon behind the effects of innovation culture on the Performance of commercial banks variable. The theory communicates that Communication channels, time, and social system are the four key components of the diffusion of Innovations. Rogers further states that the diffusion process relies heavily on human capital and that the innovation must be widely adopted in order to self-sustain. Within the rate of adoption, there is a point at which an innovation reaches critical mass.

### Resource Based View Theory

Resource based theory, which was postulated by Edith Penrose's (1959), states that firm's resources are the fundamental determinants of competitive advantage and performance. It adopts two assumptions in analyzing sources of competitive



advantage. First, this theory assumes that firms within an industry or within a strategic group may be heterogeneous with respect to the bundle of resources that they control. Second, it assumes that resource heterogeneity may persist over time because the resources used to implement firms' strategies are not perfectly mobile across firms (i.e., some of the resources cannot be traded in factor markets and are difficult to accumulate and imitate) (Kor & Mahoney, 2004). Assumptions of the theory reveal that resource uniqueness is considered a necessary condition for a resource bundle to contribute to a competitive advantage. The argument goes that if all firms in a market have the same stock of resources, no strategy is available to one firm that would not also be available to all other firms in the market. The main importance of the Resource Based View Theory is to identify the outcome after environmental influence of the company. This means that competitive advantage, resources and capabilities are strategies used to enforce outcomes, which according to the study this relates to the dependent variable; the theory suggested competitive advantage, resources, and capabilities strategies to represent the independent variables, which included transformational leadership, strategic competitive variable that is financial performance of commercial banks (Fraj, Martínez & Matute, 2013).

Barney (1991), critique that the theory assumed heterogeneity and immobility are not, however, sufficient conditions for sustained competitive advantage. Also, firm resource must in addition, be valuable, rare, and imperfectly imitable and substitutable in order to be source of a sustained competitive advantage. The RBV has developed very interesting contributions, among others, with regard to imitation with the concepts of isolating mechanisms, time compression diseconomies, asset mass efficiencies, and causal ambiguity. Recently, much resource-based research has focused on intangible assets, which include information and credit policy, knowledge, and dynamic capabilities (Pisano, 2015). Resource based theory is applicable to the study since it supports discussions on the variable influence of bank mergers on the Performance of commercial banks. Scholars are discussing resource management of commercial banks or rather improved methodology of strategically positioning firm operations that can enable the bank get competitive advantage over their rivals. The theory points out that it is important for banks therefore to consider strategies in place that allow operational performance of the commercial banks to compete favorably in the competitive market.

### **Economic Theory**

Economic Theory was postulated by Stephen Rossin 1973. Economic hypothesis recommends that expanding firm size takes into account steady points of interest in light of the fact that the operational scale empowers limits in section boundaries just as addition influence on the economies of scale to accomplish higher profits. The size of a firm influences execution from different points. Key highlights on firms different capacities, the capacities to utilize economies of scale and scope and the formalization of systems. Qualities of execution make activities increasingly viable; enable bigger firms to create better execution relative than small firms. Elective perspectives enable reliable and objective corresponded control in market demand and alongside control aspects are created (Hrebiniak, 2013). Economic Theory is useful to the study because it asserts how to generate profits under the influence of bank product diversification. Industrial organization analysts point to industry impacts (for example focus levels, industry development) utilizing the structure-conduct-performance model (SCP) as the principle factor deciding firm benefit. Then again, Vomberg, Homburg and Bornemann (2015) proposes that the clarification for the presence of pretty much productive firms inside a similar industry must be found in the inward factors of each organization (for instance, piece of the overall industry, firm size, aptitude level, and so forth). These firm-explicit components support the accomplishment what's more, support of upper hands of each firm, which in the long run lead to various productivity levels among firms having a place with a similar industry.

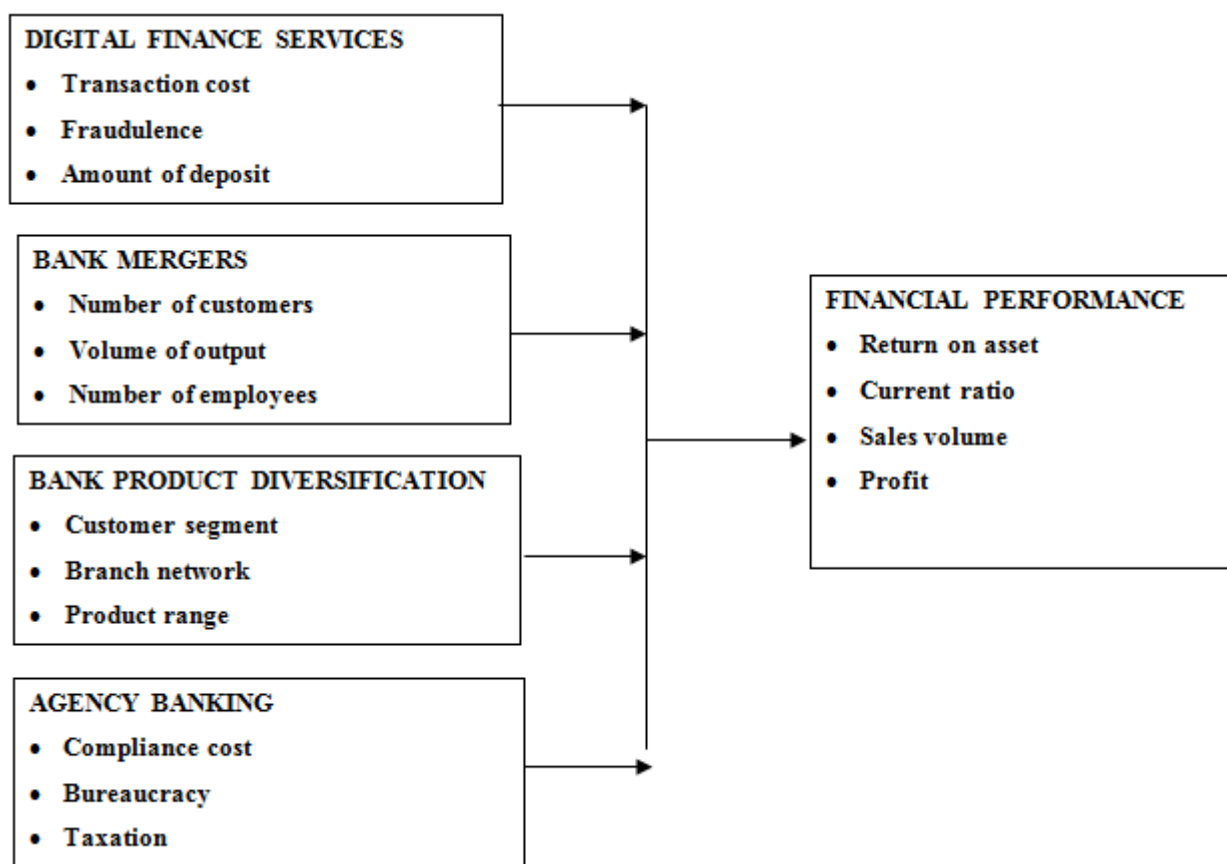
### **Agency Theory**

Agency theory was propounded by Michael Jensen in 1970s (Shapiro, 2005). This theory describes how one can frame the engagement in which a principal decides on the responsibilities while the agent executes them. In the association, the principal engages a hired person or entity to perform duties on behalf of the principle, if he is unable or unwilling to perform to a third party. The theory acts to address the principal-agent relationship. Agency theory is a detailed study developed to examine and analyze conflicts between key stakeholders and develop resolving conflicts mechanisms. An agent relation involves the principal, agent and third party. The bank is the principal, the retail outlets of bank services are the agents while the bank customers are the third parties.

Agency theory assumes that the interests of a principal and an agent are not always in alignment. This is sometimes referred to as the principal-agent problem. By definition, an agent is using the resources of a principal. The principal has entrusted money but has little or no day-to-day input. The agent is the decision-maker but is incurring little or no risk because any losses were borne by the principal. An agency, in broad terms, is any relationship between two parties in which one, the agent, represents the other, the principal, in day-to-day transactions. The principal or principals have hired the agent to perform a service on their behalf (Van Puyvelde, Caers, Du Bois, & Jegers, 2012). Van Puyvelde et al., (2012) critique that financial planners and portfolio managers are agents on behalf of their principals and are given responsibility for the principals' assets. A lessee may be in charge of protecting and safeguarding assets that do not belong to them. Even though the lessee is tasked with the job of taking care of the assets, the lessee has less interest in protecting the goods than the actual owners. This theory is important to the study because it supports the last variable of Agency banking. These agents offer banks' financial services to customers on behalf of the bank. By the fact that agents are located close to customers, they offer to customers the bank's financial services at the convenience of the customer, lower the cost of customer in accessing bank services and even promote a saving culture. As clients accrue benefits, on the other hand banks improve their financial performance due to increased market share, more banking by customers and lower operations costs.

### Conceptual framework

Annabelle, Battistella and Nonino, (2016) posits that conceptual frameworks are products of qualitative processes of theorization. In the conceptual framework, the independent variable is the influence of innovation strategies. The study variables of innovation strategies are made up of four measures, which include automated trading system, bank mergers, bank product diversification and agency banking. The independent variable is shown to be affecting the dependent variable, in this case financial performance of commercial banks.



Independent Variables

Dependent Variable

Figure 2.1 Conceptual framework

## Review of Variables

The empirical review of literature shall look at the empirical evidence on the independent variable.

### **Influence digital financial services on financial Performance of Commercial Banks**

Ramadhan (2016), determined the influence of Digital Financial Information Services (DFIS) on financial performance of commercial banks in Kisumu County, Kenya. It analysed four constructs of financial information service namely transaction alerts, online trading, digital market research and financial information dissemination. Findings revealed  $R^2 = 0.704$ ; regression coefficients: financial information dissemination ( $\beta_1=0.170$ ,  $p=0.000$ ). The study concluded DFIS significantly influence financial performance of commercial banks in Kisumu County, Kenya. Several authors have argued that Digital financial services (DFS) can expand the delivery of basic financial services to the poor through innovative technologies like mobile-phone enabled solutions, electronic money models and digital payment platforms. These digital platforms equally are used to provide financial information services and could have effect on financial performance too. Thus, DFIS are range of financial information required by users of financial information in order to make managerial financial decision.

Ahmed and Wamugo (2019) assessed the effects of digital financial services on performance of commercial banks in Kenya with particular reference to National Bank of Kenya. The research design that this study employed was descriptive research design. Stratified sampling technique was used to obtain a preferred sample that provided a high representation of the entire population. Results obtained showed that the bank continuously automated its systems as new technologies emerged. Findings showed that the bank automated its core systems such as ATMs, Digital financial services and Internet banking. The bank customers accessed these systems and utilized them to carry out their personal transactions. Findings revealed that the bank's strategic plans were well aligned towards digital financial services. Technology was considered as an important aspect in the alignment of information systems with business strategy. The organizational structure was noted to have played a role in enabling the bank gain a competitive advantage towards digital financial services of systems and support of effective organization controls. The bank's organization culture was identified for boosting innovativeness as well as enhancing the commitment amongst staff which increased the success of system digital financial services. Results also showed that top management provided the strategic vision and direction towards system digital financial services while ensuring that there was cooperation amongst staff and all stakeholders involved in digital financial services.

### **Influence of Bank mergers on Financial Performance of Commercial Banks**

Ileri (2016) established the effect of bank mergers and acquisitions on financial performance of commercial banks in Kenya. The study was guided by the following objectives; to find out the effect of asset growth, shareholders value and synergy on the financial performance of merged banks in Kenya. The study adopted a causal research design. It adopted a census method which involved studying all the 6 merged banks from the year 2010 to 2017. The study used secondary data from published audited annual reports of commercial banks and banking supervision annual reports. Descriptive and inferential statistics were used to analyze data at 5% significance level. The study found out that the bank mergers and acquisitions had a positive impact on shareholders' value and assets of the merged or acquiring banks in Kenya. Bank mergers and acquisitions (M&A) perform a vital role in corporate finance by enabling firms achieve varied objectives and financial strategies. In Kenya banks have been merging with the goal of improving their financial performance. Studies done on bank mergers and acquisitions have not conclusively established whether or not banks benefit from bank mergers. Joash and Njangiru (2015) examined the banks that have merged or acquired in Kenya for the period between 2000 and 2014. The aim of the study was to analyze whether the merger had any effect on the banks' performance. The study was a census of which all the 14 banks that have merged or acquired others in the period from 2000 to date were investigated. Data was collected by use of questionnaires with both open and closed ended questions. The collected data was analyzed using SPSS where the co-efficient of correlation obtained was used to determine the nature of the relationship between the independent and dependent variables. The study found out that the bank mergers and acquisitions raised the shareholders' value of the merged/acquiring banks in Kenya. The study further revealed that the main reason why most banks merged or acquired was to raise their profitability. The research questions were significant to the study and useful in arriving data conclusion. The researcher recommended that thorough feasibility studies should be carried out before the merger/acquisition process can be done. On areas of further research, it was recommended that effect of bank mergers/acquisitions in other sectors of the economy should be established with a view of drawing a parallel with the effects of the same processes in the banking sector.



### **Influence of Bank product diversification on Financial Performance of Commercial Banks**

Ndungu and Muturi (2019) investigate the effect of business bank product diversification on the financial performance of commercial banks in Kenya. The study was based on the fact that the banking sector in Kenya is highly regulated with significant business restrictions and attendant disclosures which have created incentives for the banks to diversify. However, the effect of business bank product diversification on financial performance remains inconclusive with diverse studies finding minimal or no relationship while others finding positive significant effect. The study used a mixed research design where descriptive and quantitative research designs were used. The population for this study was all the forty two commercial banks in Kenya. Sources of data were both secondary and primary where quantitative techniques were used to undertake data analysis. The study found that business bank product diversification significantly positively affected how the commercial banks in Kenya performed. The exact effect was however established to be largely dependent on bank-size. Business bank product diversification significantly improved financial performance for small banks. Under medium sized banks category, only location bank product diversification affected financial performance in a significant manner. For large banks all the four forms of business bank product diversification did not have a significant effect on their financial performance. Respondents perceived business bank product diversification to positively affect financial performance of commercial banks in Kenya to a moderate extent. The study was limited by examining financial performance by use of the CAMELS model in a developing country and being conducted in a single industry. Further, CAMELS was measured using a constructed index by data being obtained from the commercial banks' annual audited reports. The study highlighted the need to develop business bank product diversification strategies specifically tailored for each of the tiers of commercial banks with a focus on all forms of bank product diversification for small banks, location bank product diversification for the medium-sized banks and enhancement of existing forms of bank product diversification among large commercial banks. Makau and Jagongo (2018) evaluated the relationship between bank product diversification and firm performance. Because of the contradictory results concerning the relationship between bank product diversification and performance, the question of whether bank product diversification improves or worsens firm performance is still worthy of further research such as the one being undertaken in this study. In addition, despite the existence of these studies, very little attention has been given to the developing countries. Besides, the impact of bank product diversification on firm performance has not received adequate research attention in Kenya.

### **Influence of Agency Banking On Financial Performance of Commercial Banks**

Mbugua and Omagwa (2017) established the effect of agency banking model on financial performance of commercial banks focusing on commercial banks in Embu County, Kenya. In particular, the study sought to achieve the following specific objectives: establish the effect of cost-effectiveness of agency banking on financial performance of commercial banks, to determine the effect of commissions earned from agency banking on financial performance of commercial banks, to establish the effect of operational flexibility of agency banking on financial performance of commercial banks and to determine the effect of banking hall decongestion financial performance of commercial banks in Embu county, Kenya. This study was informed by: bank-led theory advantage and agency theory. The study adopted a descriptive research design. The study target population was all the Banks agent outlets in Embu County, Kenya. The sample size of the study was 69 bank officials in top, middle and junior level management in Embu County, Kenya.

Kandie (2018) found that agency banking has brought about down the cost of banking and banking transactions. The study also found that banking cost of agency banking influence the financial performance of the Commercial Banks in Embu County to a very great extent. The study established that majority of the bank officials' rated as excellent the amount of commission earned by the bank and the bank agents earned from the adoption of agency banking, that a considerable majority of the respondents were of the opinion that agency banking had led to lead to decongestion of banking halls and that operational flexibility of agency banking is a significant predictor of the financial performance of the selected commercial bank. The study concludes that cost-effectiveness had the greatest effect on financial performance of the selected Commercial banks followed by banking hall decongestion then operational flexibility while commissions earned had the least effect on financial performance of the selected Commercial Banks. The study recommends that Commercial banks in Kenya should improve customers' perception by making more advertisements and also increase promotion activities of agent's banking Central bank consider coming with a clear agency banking regulatory policy which creates a universal platform for all banking institutions. Mbugua and Omagwa (2017) evaluated agency banking and financial performance of commercial banks in Embu County, Kenya. The study found that agency

banking is receiving much attention all over the world owing to its associated benefits. In a number of countries, banks are finding new ways to make money delivering financial services to "unbanked" people. Rather than using bank branches and their own field officers, they offer banking and payment services through retail outlets, including grocery stores, pharmacies, seed and fertilizer retailers and gas stations among others. The banking business environment has changed and innovative technology has remained a key strategy for the banking sector to remain competitive. The banking fraternity has really transformed its financial operations by providing convenient and accessible services through mobile banking and internet banking. To this end banks are fast developing branchless banking such as ATM, internet and mobile banking among others. Agency banking is among the latest inventions that have improved the banking services by increasing accessibility and convenience to customers.

Dzombo, Kilika and Maingi (2017) found that agency banking has significant positive effect on the ROE of the Kenyan banks. From the statistical analysis it's revealed that there is a significance level between the agency banking variables and the rate of return on Assets. This implies that agency banking is continuously improving leading to significance increased financial performance in those banks that have rolled up the service due to its convenience and efficiency in operation. The recommendations are that commercial banks should fully embrace agency banking through adoption of improved technology for information security volume of to make it more reliable to the customers. The government should support the program more often and reduce the high compliance costs, bureaucracy in registration and high cost of taxation

### Critiques of Existing Literature

Ahmed and Wamugo (2019) critique automated service as achieved through technology which is considered as an important aspect in the alignment of information systems with business strategy. The organizational structure was noted to have played a role in enabling the bank gain a competitive advantage towards digital financial services of systems and support of effective organization controls. The bank's organization culture was identified for boosting innovativeness as well as enhancing the commitment amongst staff which increased the success of system digital financial services. Results also showed that Top management provided the strategic vision and direction towards system digital financial services while ensuring that there was cooperation amongst staff and all stakeholders involved in digital financial services. Too et al., (2016) also critique Digital financial services gives users a possibility to always be in connection with our bank accounts in regards to receiving updates every minute. Various account holders have great transaction per day. With the assistance of downloading the mobile banking application and software of their banks, they can get the update of their account by every minute or second.

Kaol (2017) critique bank mergers and acquisitions that perform a vital role in corporate finance in enabling firms achieve varied objectives and financial strategies. In Kenya, banks have been merging with the goal of improving their financial performance. Studies done on bank mergers and acquisitions have not conclusively established whether or not banks benefit from bank mergers. Most studies have observed that bank mergers did not lead to an improvement in financial performance as indicated by their profitability and earnings ratios. Bank mergers and acquisitions are corporate restructuring activities conducted in a bid to enhance the firms' returns or increase the efficiency of their operations. There are enormous benefits attributed to bank mergers and acquisitions and this factor has increased the attractiveness of bank mergers and acquisitions globally hence the recent trend towards bank mergers and acquisitions. Ndungu and Muturi (2019) critique business bank product diversification as significantly and positively affect how the commercial banks in Kenya performed. The exact effect was however established to be largely dependent on bank-size. Business bank product diversification significantly improved financial performance for small banks. Under medium sized banks category, only location bank product diversification affected financial performance in a significant manner. For large banks all the four forms of business bank product diversification did not have a significant effect on their financial performance. Respondents perceived business bank product diversification to positively affect financial performance of commercial banks in Kenya to a moderate extent. Further, Rahman (2016) critique agency banking model requires commercial banks to rely on the existing infrastructure such as supermarkets, hotels and petrol stations to reach out to customers. Banking agents are usually equipped with a combination of point-of-sale (POS) card reader, mobile phone, barcode scanner to scan bills for bill payment transactions, Personal Identification Number (PIN) pads, and sometimes personal computers (PCs) that connect with the bank's server using a personal dial-up or other data connection. To drive decision making, ensure appropriate agent set up and channel support and permit subsequent performance evaluation against the original strategic intent.

### Research Gaps

Previous scholars have made research on various fields related innovation strategies on financial performance of commercial banks. Mbugua and Omagwa (2017) evaluated agency banking and financial performance of commercial banks in Embu County, Kenya; Ndungu and Muturi (2019) determine the effect of bank product diversification on financial performance of commercial banks in Kenya; Chepkorir (2018) established the influence of portfolio bank product diversification on financial performance of commercial banks listed on Nairobi securities exchange; Kaol (2017) evaluated the effect of bank mergers and acquisitions on the financial performance of commercial banks in Kenya and Ireri (2016) determined the effects of bank mergers and acquisitions on financial performance of oil companies in Kenya. Kandie (2018) further recommended that Commercial banks in Kenya should improve customers' perception by making more advertisements and also increase promotion activities of agent's banking Central bank consider coming with a clear agency banking regulatory policy which creates a universal platform for all banking institutions. Dzombo et al., (2017) also recommended that commercial banks should fully embrace agency banking through adoption of improved technology for information security volume of to make it more reliable to the customers. However this study seeks to determine the influence of innovation strategies on financial performance of commercial banks in Kitale town, Kenya.

### Summary of Reviewed Literature

In summary, Mabwai (2016) determine the effect of mobile banking on the financial performance of commercial banks in Kenya and found that the growth of mobile banking was motivated by the convenience offered by the service. The study however found that there exist a weak positive relationship between mobile banking and the financial performance of commercial banks in Kenya. Mobile banking is generally about providing banking services to the unbanked, those who do not have bank access or bank accounts, and those who are at the bottom of the financial pyramid, often living in rural areas. These targeted people will access the benefits of banking services such as being able to save and borrow in a cost-efficient and secure way. Njambi and Kariuki (2018) assessed the effect of bank mergers and acquisitions on financial performance of financial institutions in Kenya. The study found that there was a significant relationship between financial performance and return on assets, there was no significant relationship between financial performance and return on equity and there was also no significant relationship between financial performance and financial stability of institutions that had either merged or undergone through acquisition.

Chepkorir (2018) examine the influence of bank assurance, mobile banking and real estate finance on the financial performance of listed the commercial banks listed on the Nairobi Securities Exchange. Agency banking has significant positive effect on the ROE of the Kenyan banks. From the statistical analysis it's revealed that there is a significance level between the agency banking variables and the rate of return on Assets. This implies that agency banking is continuously improving leading to significance increased financial performance in those banks that have rolled up the service due to its convenience and efficiency in operation.

## 3. RESEARCH METHODOLOGY

### Introduction

This chapter presented research design, the target population, the sample size and sampling technique, data collection instruments, pilot testing of the instrument was used, data collection procedure, assumptions of the regression model and data analysis.

### Research Design

The study used descriptive survey research design. Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection (Knupfer & McLellan, 1996). It often uses visual aids such as graphs and charts to aid the reader in understanding the data distribution. Because the human mind cannot extract the full import of a large mass of raw data, descriptive statistics are very important in reducing the data to manageable form. When in-depth, narrative descriptions of small numbers of cases are involved, the research uses description as a tool to organize data into patterns that emerge during analysis. Those patterns aid the mind in comprehending a qualitative study and its implications (Knupfer & McLellan, 1996). Descriptive studies report summary data such as measures of central tendency including the mean, median, mode, deviance from the mean, variation, percentage, and correlation between variables. Survey research commonly includes that type of measurement, but often goes beyond the descriptive

statistics in order to draw inferences (Castellan, 2010). Descriptive research is unique in the number of variables employed. Like other types of research, descriptive research can include multiple variables for analysis, yet unlike other methods, it requires only one variable. For example, a descriptive study might employ methods of analyzing correlations between multiple variables by using tests such as Pearson's Product Moment correlation, regression, or multiple regression analysis (Castellan, 2010).

### Target Population

Target Population is the complete set of cases from which a sample is selected whether it describes human beings or not (Hong, Pluye, Fabregues, Bartlett, Boardman, Cargo & O'Cathain, 2018). The researcher targeted all the employees from Commercial banks of Kenya in Kitale and the accessible target population was 180 employees from Commercial banks of Kenya in the Trans-Nzoia County: 10 Human Resource, 30 Credit operation officers, 20 Marketing officers, 50 Finance officers, 10 Managers, 10 Risk and Audit staff, 20 Supply officers and 20 Customer Relations officers. Table 3.1 shows the target population of the study.

**Table 3.1 Target Population**

Employees	Target Population	Total
Human Resource	1*10	10
Credit operation	3*10	30
Marketing	2*10	20
Finance	5*10	50
Managers	1*10	10
Risk and Audit	1*10	10
Supplies	2*10	20
Customer Relations	2*10	20
<b>Total</b>		<b>180</b>

### Sample and Sampling Technique

Sample refers to a representative selection of a population that is examined to obtain information about the whole population. Sampling technique refer to the specific process by which the sample has been selected. This process should ensure selected persons characterize entire population targeted (Alvi, 2016). The purpose of sampling is to gain a clear understanding about characteristics of the whole population based on such observable characteristics of the sample. The sampling technique that was used in this study was simple random sampling technique. Stratified sampling technique ensured that each stratum was assigned the proportionate number of respondents as per the target population in each commercial bank and were selected using simple random sampling.

In this study, a sample size of 124 employees shall be used. Orodho (2013) asserts that sampling is that part of the statistical practice concerned with the selection of an individual intended to give knowledge about a population of concern, particularly for the purposes of statistical inferences. According to Fetcher (2009), if the target population is less than 10,000, then the sample can be determined using a Yamane (1967) formula. The sample size of this study was drawn using the formula as follows:

$$n = N / (1 + Ne^2) \dots \dots \dots \text{Equation 3.1}$$

Where

n = represents corrected sample size,

N = represents population size, &

e = represents Margin of error (MoE) (0.05) based on the research condition.

$$n = 180 / (1 + 180 * 0.05^2)$$

$$n = 124$$

The sample size of the study was 124 respondents.

Table 3.2 Sample Size

Employees	Target population	Sample size
Human Resource	10	8
Credit operation	30	21
Marketing	20	13
Finance	50	35
Managers	10	8
Risk and Audit	20	13
Supplies	20	13
Customer Relations	20	13
<b>Total</b>	<b>180</b>	<b>124</b>

### Data Collection Instruments

Primary data was collected through structured questionnaires. Naderifar, Goli, and Ghaljaie, (2017), consider this tool best placed to collect a lot of data being justifiable for use in a quantitative study. Naderifar *et al.*, (2017) further defines questionnaires as measuring instruments that ask individuals to answer a set of questions or respondent to a set of statement. Structured questionnaire was used to collect the required information from the respondents of the different departments in the Commercial banks of Kenya s in Kitale. The questionnaires consisted of two sections: the first section was demographic information and the second section of the questionnaire contains a Likert type of scale and opens ended questions that were used to obtain information from the respondents as per the objectives. This method is selected because it enables the study to obtain a lot of information in a small (Kothari, 2014). The instrument also ensured anonymity of respondents as their identities were not be requested.

Section A solicits information on demographic data on gender, age bracket, education and number of years of service in the organization. The information intended to collect data describing the sample characteristics in order to include them in the analysis because these characteristics have an effect on respondents' perception. Section two (B-E) presents questions related to the study objectives using a Likert scale of 1-5. (1= Strongly Disagree, 2 = Disagree, 3= Neutral, 4 = Agree and 5 = Strongly Agree) in the questionnaire. According to Saunders et al., (2014) the questionnaire is used since it is easy to administer and with data obtained is easy to analyze. A 5 - point Likert-type scale is used since it increases response rate and response quality.

### Data Collection Procedure

According to Naderifar *et al.*, (2017) data collection procedure involves selecting subjects and gathering information from them. The process explains the steps involved in collecting data with regard to a specific objective of the study and depending on the research design and method was measured. Respondents were asked to fill the questionnaires on their own after making some necessary clarifications so as to get their full consent while open ended questions were used where explanation and personal opinion were sought. The Researcher first sought permission upon approval of the project from the Jomo Kenyatta University of Agriculture and Technology which is an introductory letter in writing to allow him go and get a permit for collecting data from The National Commission for Science, Technology and Innovation (NACOSTI). After acquiring the permit, the researcher used the permit to get permission from all the commercial banks within the Trans-Nzoia County. The study sampled 180 participants whom were administered with the Questionnaires. The bank receptionist assisted during the administration of the instruments by identifying within all the sections in the bank. Data collection was done immediately after the administration and all the response sheets were received back from the respondents when the questionnaires are fully filled.

### Pilot Study

A pilot study was carried out in KCB Eldoret Main (Uasin Gishu County) and a group of 18 employees was selected to test the reliability of the research instrument. An internal consistency technique was applied using Cronbach's Alpha to test the instrument consistency. The alpha value ranges between 0 and 1 with reliability increasing with the increase in value. Coefficient of 0.7 is a commonly accepted rule of thumb that indicates acceptable reliability and 0.8 or higher indicated good reliability (Taber, 2018). Validity and reliability increase transparency, and decrease opportunities to insert



researcher bias in qualitative research (Guest, MacQueen & Namey, 2012). The pilot study to be conducted in the bank helped in evaluating the validity and reliability of the research instrument. The purpose of piloting is to assess the clarity of the items on the instrument so that those items found inadequate in measuring the variables could be modified to improve the quality of the research instrument (Guest *et al.*, 2012). During the pilot study, the researcher discussed each item on the questionnaire with the respondents to determine its suitability, clarity and relevance for the purpose of the study. Modifications were made on the instrument before it is finally used to collect data for the study. Reliability of the data was assured since the study relies on raw data directly from the respondents.

### Validity Test of Research Instrument

Validity of a research instrument is the degree to which results obtained from the analysis of the data represent the phenomenon under investigation (Hayashi Jr, Abib, & Hoppen, 2019). Validity of an instrument represents the degree to which a test measures what it is expected to measure. The study used Content validity where the researcher seeks expert opinion to comment on the representativeness and suitability of questions and to give suggestions of corrections to be made to the structure of the research tool. Face validity was measured by evaluating the feasibility. Reliability, clarity of language used and the consistency of formatting.

### Reliability Test of Research Instrument

Reliability refers to replication and consistency (Hayashi *et al.*, 2019). An instrument is reliable when it can measure a variable accurately and obtain the same results over a period of time. The purpose of reliability test was to check the internal consistency of the instrument. Internal consistency of the instrument can best be described using the Cronbach's alpha. The alpha value ranges between 0 and 1 with reliability increasing with the increase in value. Coefficient of 0.7 is a commonly accepted rule of thumb that indicates acceptable reliability and 0.8 or higher indicated good reliability (Hayashi *et al.*, 2019).

### Data Processing and Analysis

Data analysis is the process of bringing order, structure and meaning to the mass of collected data (Thomson, & Emery, 2014). After data collection, data check was done for consistency and analysis was done with the aid of statistical package for social sciences (SPSS) version 20. Data was analyzed using both descriptive and inferential statistics. Descriptive statistics such as standard deviation, mean score, frequencies and percentages for each variable was calculated and tabulated using frequency distribution tables. In order to test the relationship between the dependent and independent variables the inferential tests including the Pearson Product-Moment Correlation Coefficient using multiple regression analysis was done. Correlation coefficient is defined as a measure of the strength of linear association between two variables. Correlation always ranges between -1.0 and +1.0. If the correlation is positive, then there is a positive relationship. Multiple regression analysis refers to a set of techniques for studying the straight-line relationships among two or more variables. Correlation coefficient is used to analyze the degree of relationship between two variables (Gogtay, & Thatte, 2017). A multiple regression analysis was used to determine the influence of the independent variable, it was used to measure the relative influence of each dependent variable based on its covariance dependent variable and was useful in forecasting. Once the relationship is estimated, it is possible to use the equation.

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon \dots \dots \dots \text{Equation (i)}$$

Where:

Y = Dependent Variable i.e. (Financial Performance)

X<sub>1</sub> = Mobile Banking.

X<sub>2</sub> = Bank mergers.

X<sub>3</sub> = Bank product diversification.

X<sub>4</sub> = Agency Banking.

β<sub>0</sub> represents Constant (Independent variable Coefficients)

β<sub>1</sub>, β<sub>2</sub>, β<sub>3</sub> and β<sub>4</sub> represents Regression coefficients/measure of sensitivity of Variables x to changes in the business performance.

ε = Error term

#### 4. RESEARCH FINDINGS AND DISCUSSIONS

##### Introduction

Chapter four presents data findings and discussion from the questionnaires that were filled and completed by the respondents during data collection.

##### Pilot Study Results

This research conducted a pilot study from Kenya commercial banks within Eldoret town to test reliability of the research instruments using a sample of 12 respondents. Validity of the research instruments were ascertain through content check. Research supervisors and student colleagues who are experts were used to check and rate relevance of the questions and their feedback was used to improve validity of the questionnaires.

Internal consistency techniques were applied using Cronbach's Alpha to test the research reliability of the questionnaires as shown in table 4.1. The study variables showed that the Cronbach's Alfa of digital financial services was 0.872, a bank merger was 0.810, bank product diversification was 0.876 and agency banking 0.776. The findings imply that all the formulated questionnaires for each of the study variables are fit for the study. In conclusion all the research questions tested were fit to be used in main data collection and this is supported by Saunders *et al.*, (2016) who pointed that a coefficient of 0.7 Cronbach's Alpha is accepted value and a coefficient of 0.8 or higher indicated good reliability of the research instruments.

**Table 4.1 Reliability Test**

Variables	Cronbach's Alpha	N of Items	Remarks
Digital financial services	.872	5	Accepted
Bank mergers	.810	4	Accepted
Bank product diversification	.876	5	Accepted
Agency banking	.776	4	Accepted

##### Respondents Rate

This study administered 124 questionnaires to the respondents and 115 were filled and returned for data analysis. This represented 92.74% response rate which was adequate response to carry out data analysis. This is supported by Kothari (2004) who posits that a response rate of 70.0% and above is sufficient to for a study to generalize study findings representing the whole population targeted by the study.

**Table 4.2 Response Rate**

	Frequency	Percent
Administered	124	100
Responded	115	92.74
Not responded	9	7.26

##### General Information

The study also sought to know general information of the respondents which included gender, age bracket, working experience and level of education. General information helps us to understand well about the study respondents and where they work. They guarantee accuracy of the data collected.

##### Gender of the respondents

The study sought to find out gender of the respondents. Table 4.3 presents the findings which showed that the majority of the respondents 55.7% were male and the remaining 44.3% were female. This showed that banks observed gender rule where a third of the employees are female. Therefore the study was not gender bias.

**Table 4.3 Gender of the Respondents**

	Frequency	Percent
Male	64	55.7
Female	51	44.3
<b>Total</b>	<b>115</b>	<b>100.0</b>

**Age Bracket**

The study wanted to find out how respondents were distributed according to their age brackets. Results are shown in table 4.4. From the findings it was found out that the majority of the respondents 47.8% were in the age bracket of 31-40 years, followed by 26.1% of the age bracket 20 to 30 years, 18.3% of the age bracket 41-50 years, 7.8% of the age bracket over 51 years.

**Table 4.4 Age Bracket of the Respondents**

	Frequency	Percent
Below 20-30years	30	26.1
Between 31-30 years	55	47.8
Between 41-50 years	21	18.3
Over 51 years	9	7.8
<b>Total</b>	<b>115</b>	<b>100.0</b>

**Worked Experience**

The study sought to find out work experiences of the respondents. The study findings are presented in table 4.5. This showed that majority of the respondents 41.7% have worked for 5 to 10 years, followed by 29.9% who have worked for below 5 years, 19.1% of the respondents have worked for 10 to 15 years and the remaining 9.6% of the respondents have worked for more than 16 years in the respective institutions. This implied that majority of the respondents have been working the banking sector have good understanding on the banking operations.

**Table 4.5 Worked Experience of the Respondents**

	Frequency	Percent
Below 5 years	34	29.9
5-10 years	48	41.7
10-15 years	22	19.1
above 16 years	11	9.6
<b>Total</b>	<b>115</b>	<b>100.0</b>

**Level of Education**

The study sought to find out the level of education of the respondents. The findings were presented in table 4.6. The findings showed that majority of the respondents 52.2% have degree, 37.9 have diplomas and certificate and the remaining 9.9% are postgraduates. This showed that respondents were educated and could easily interpret questions to provide accurate answers which are reliable for data analysis.

**Table 4.6 Level of Education of the respondents**

	Frequency	Percent
Postgraduate	9	7.8
Degree	42	36.5
Diploma	55	47.8
Certificate	9	7.8
<b>Total</b>	<b>115</b>	<b>100.0</b>

### Descriptive Statistics

The study reviewed views of the respondents on the influence of innovation strategies on financial performance of commercial banks in Kitale town, Kenya. Respondents were asked to present their views in likert scale of 1 to 5. Where 1 represent Strongly Disagree (SD); 2 represent Disagree (D); 3 represent Neutral (N); 4 represent Agree (A); 5 represent strongly Agree (SA). The descriptive studies that were used in the study included; frequencies, percentages, mean scores and standard deviation. Frequencies were used to show the number of responses citing particular responses while the percentages were used to show the portion of the respondents giving a particular response out of the total number of number of respondents. According to Orodho and Kombo (2002) means scores were used to show the tendency of the respondents in responding to the study questions and standard deviation was used to show the spread of the respondents across the possible responses and also the level of consensus among the respondents in rating the extent of various matrix in the study.

### Digital Financial Services

The first objective was to determine influence of digital financial services on financial performance of commercial banks in Kitale town, Kenya. The study focused on the Competitiveness, Amount of deposits, transaction costs, rate of fraudulence, Risk acceptance. The study was interested with the opinions of the respondents on the extent to which such constructs affect financial performance of commercial banks. The descriptive results for digital financial services were presented in table 4.7. The results as presents in table 4.7 showed that majority of respondents 86.1% agreed that adoption of digital financial services has increased competitiveness on performance of commercial banks. Respondents who disagreed on the statement were 12.0%. Respondents further accepted at (mean=4.09 and Std. Deviation= 0.911) that adoption of digital financial services has increased competitiveness on performance of commercial banks. Ahmed and Wamugo (2019) argued that digital financial services are considered an important aspect in the alignment of information systems with business strategy. The digital financial services of the organizational structure has been noted to have played a role in enabling the bank gain a competitive advantage towards digital services of systems and support of effective organization controls. Again, 94.3% agreed and 3.5% disagreed with the statement that the amount of deposits recorded daily has increased since the adoption of digital financial services. Also respondents accepted at (mean=4.33 and Std. Deviation= 0.855) respondents accepted that amount of deposits recorded daily has increased since the adoption of digital financial services. The adoption of digital financial services has enabled bank's organization culture identify boosting innovativeness as well as enhancing the commitment amongst staff which increased the success through daily amount of money transacted compared to the analogue system.

The study respondents' view on transaction cost revealed that 81.7% of the respondents agreed that transaction cost has accumulated to a higher index since majority of the customers prefers automated service. Respondents who disagreed with the statement were 12.1%. Respondents further accepted at (mean=4.01 and Std. Deviation= 0.987) that transaction cost has accumulated to a higher index since majority of the customers prefers automated service. Coderias (2017) established that digital financial services reduces the transaction costs in regards to time and distance because they can perform banking transactions despite not being near the bank branch. The study also found that the simplicity and usefulness of digital financial services is one of the major influencers and increases financial accessibility in that customers can not only perform banking transactions but also make other payments e.g. Utility payments. Respondents also gave their views on fraudulence cases and 87.9% of the respondents agreed that automated service has reduced cases of money fraudulence and theft cases compared to cash systems, similarly 4.4% of the respondents disagreed with the statement. At (mean=4.15 and Std. Deviation= 0.775) respondents accepted that automated service has reduced cases of money fraudulence and theft cases compared to cash systems. With the current system of digital transactions, tracing fraudulent sources and channels of sending money can be easily retrieved because evidence cannot be tempered easily. The study respondents' opinion on the digital financial services is threat to risk acceptance by fraudsters revealed that 81.7% accepted that digital financial services is threat to risk acceptance by fraudsters. Respondents who disagreed were 9.6%. The study further accepted at (mean=4.06 and Std. Deviation= 0.901) that digital financial services is threat to risk acceptance by fraudsters. Fraudsters have to be super smart when dealing with the digital system because they cannot still and disappear without tracing there whereabouts. Commercial banks have invested in high-tech cyber security to control money movement in and out of customers' accounts. Banks have therefore thrived to a higher performance level with the digital financial systems.

Table 4.7 Digital Financial Services

		SD	D	N	A	SA	Total	Mean	Std. Deviation
1. Adoption of digital financial services has increased competitiveness on performance of commercial banks.	F	0	14	2	62	37	115	4.06	.911
	%	0.0	12.2	1.7	53.9	32.2	100.0		
2. Amount of deposits recorded daily has increased since the adoption of digital financial.	F	3	1	6	50	55	115	4.33	.835
	%	2.6	.9	5.2	43.5	47.8	100.0		
3. Transaction cost has accumulated to a higher index since majority of the customers prefers automated service.	F	2	12	7	56	38	115	4.01	.987
	%	1.7	10.4	6.1	48.7	33.0	100.0		
4. Automated service has reduced cases of money fraudulence and theft cases compared to cash systems.	F	1	4	9	64	37	115	4.15	.775
	%	.9	3.5	7.8	55.7	32.2	100.0		
5. Digital financial services are threat to risk acceptance by fraudsters.	F	0	11	10	55	39	115	4.06	.901
	%	0.0	9.6	8.7	47.8	33.9	100.0		

### Multiple Regression Analysis

The study used multiple linear regression analysis to determine the combined linear relationship between the dependent variable (financial performance of commercial banks) and the independent variables (digital financial services, bank product diversification, bank mergers and agency banking). The findings as shown in table 4.16 showed that ( $R^2 = 0.828$ ). This implied that there is a positive effect of innovation strategies and financial performance of commercial banks and therefore 82.2% of variation in financial performance of commercial banks is accounted by innovation strategies (digital financial services, bank mergers, bank product diversification and agency banking) in the study whereas 42.5% of the competitiveness is accounted by other factors out of the study.

Table 4.8: Multiple Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.910 <sup>a</sup>	.828	.822	.21060

a. Predictors: (Constant), Digital financial services, Bank mergers, Bank product diversification, and Agency banking.

b. Dependent Variable: financial performance of commercial banks

### Assessing the Fit of the Model Summary

Analysis of variance was used to determine if the multiple regression models was fit for the data. The results as shown in table 4.17 indicated that that the effect of dependent variable was statistically significant ( $F=132.356$ ;  $p<0.05$ ). This implied that the multiple regression models was fit for the data, therefore the overall regression model for all the variables Digital financial services, Bank mergers, Bank product diversification, and Agency banking was statistically significant and affects Financial performance of commercial banks.

Table 4.9: ANOVA Test Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	23.482	4	5.870	132.356	.000b
	Residual	4.879	110	.044		
	Total	28.361	114			

a. Dependent Variable: Financial performance of commercial banks

b. Predictors: (Constant), Digital financial services, Bank mergers, Bank product diversification, and Agency banking.



### Regression coefficients

The T-test of statistical significance of each regression coefficient was conducted in order to determine the beta ( $\beta$ ) value which shows how strongly each independent variable affects the dependent variable. Table 4.18 shows results of the study variables; the regression coefficients. The study findings revealed that Digital financial services had a positive and statistical significant effect on financial performance of commercial banks in Kitale town, Kenya ( $\beta=0.282$ ;  $p<0.05$ ), Bank mergers had a positive and statistical significant effect on financial performance of commercial banks ( $\beta=0.237$ ;  $p<0.05$ ), Bank product diversification had a positive and statistical significant effect on financial performance of commercial banks ( $\beta=0.181$ ;  $p<0.05$ ) and Agency banking had a positive and statistical significant effect on financial performance of commercial banks ( $\beta=0.295$ ;  $p<0.05$ ). From Table 4.18, the multiple regression equation can be written as:

$$Y = 0.967 + 0.282X_1 + 0.237X_2 + 0.181X_3 + 0.295X_4 + \varepsilon \dots\dots\dots \text{Equation 4.1}$$

The findings can be interpreted as; at constant, Digital financial services, Bank mergers, Bank product diversification, and Agency banking financial performance of commercial banks is at 0.967 units. The coefficient of 0.282 indicates that an improvement in digital financial services by one unit increases financial performance of commercial banks by 0.282 units, the coefficient of 0.237 indicates that an improvement in bank mergers by one unit increases financial performance of commercial banks by 0.237 units, the coefficient of 0.181 indicates that an improvement in bank product diversification by one unit increases financial performance of commercial banks by 0.181 units and the coefficient of 0.295 indicates that an improvement in agency banking by one unit increases financial performance of commercial banks by 0.295 units.

### Hypothesis Testing

In this study, all the four hypotheses were tested where p value of less than 0.05 shows there was significant relationship between the variables and null hypotheses were rejected while p value of more than 0.05 shows there was no significant relationship between study variables and the study fails to reject the null hypothesis.

### Hypothesis Testing of Digital financial services on financial performance of commercial banks

The first hypotheses ( $H_{01}$ ) of the study stated that digital financial services have no significant influence on financial performance of commercial banks in Kitale town, Kenya. The study results as shown in table 4.19 indicated that digital financial services have a significant effect on financial performance of commercial banks ( $\beta_1=0.282$ ;  $P=0.004<0.05$ ). The  $\beta$  factor of 0.282 implies that digital financial services affect financial performance of commercial banks in Kitale town, Kenya by 28.2%. The p-value of 0.002 is less than the predictable value of 0.05 which indicates that the digital financial services have a positive and statistical significant effect on financial performance of commercial banks in Kitale town, Kenya.

## 5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

### Introduction

This chapter presents the summary of the key data findings, discussion of the findings; conclusions drawn from the findings highlighted and recommendation made based on the findings. The conclusions and recommendations were drawn to addressing the effects of innovation strategies on financial performance of commercial banks in Kitale town, Kenya, Kenya.

### Summary of the Findings

This section presents the summary of the findings of the study based on the objectives of the study.

### Digital financial services & financial performance of commercial banks

The first objective sought to determine the effect of digital financial services on financial performance of commercial banks in Kitale town, Kenya. The findings indicated that commercial banks adopted digital financial services which enabled bank's organization culture identify innovations as well as enhancing the commitment amongst staff which increased the success through daily amount of money transacted compared to the analogue system. Also, the current

system of digital transactions helps trace fraudulent sources and channels of sending money. And finally the digital financial services have a positive and statistical significant effect on financial performance of commercial banks in Kitale town, Kenya.

### **Conclusion**

The study concluded that digital financial services enables commercial banks identify innovations which enhances the commitment amongst staff hence increase daily transaction. The success is recorded through increased daily amount of money transacted compared to the analogue system. Bank mergers enabled commercial banks increase the capital structure that is sufficient to facilitate successfully financial operations. Mergers have got advantages over smaller operating banks because they enjoy the larger market of the incorporated commercial banks. Bank product diversification provides wide range of customer services that attract potential market. Bank product diversification enables customers to access their desired products at any convenient time. Also, agency banking has enabled local customers' access the banking services that would have not been readily accessed due to differences in geographical locations. Agency banking effectively operates with less restriction from the principle banks.

### **Recommendations**

The study provides recommendations on innovation strategies on financial performance of commercial banks based on the findings of the study.

### **Recommendation to the policy makers**

The study recommends to the bank managers to give more emphasis on digital financial services since transactions has accumulated to a higher index and majority of the customers prefers automated service for it comes with efficiency. Also bank managers are recommended to focus on bank product diversification of commercial banks because it increases and improves its market share by competing globally. Bank managers are also recommended to embrace mergers when their operation capital is limited because bank mergers stimulate the volume of product output and services in the market. Bank managers are also recommended to mobilize more agency banking services since registrations of customers have been convenient and access the local communities is achieved.

### **Suggestion for Further Study**

The study suggests that a future research can be carried on the challenges facing the implementation of innovation strategies on financial performance of commercial banks in Kenya.

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