INFLUENCE OF BANKING INNOVATIONS ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN NAIROBI COUNTY: A CASE OF KENYA COMMERCIAL BANK

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DECLARATION

I declare that this project is my original work and that it has not been presented in any other university for academic credit.

Signature: ----- ---------- Date: ------ 05/04/2022----------

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SUPERVISOR'S DECLARATION

This applied research project is submitted for examination with my approval as the university supervisor(s)

Name____Dr. Charles WeDA___ Sign ____ ____ Date_____05-04-2022_____

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NAIROBI, KENYA

DEDICATION

I dedicate this work to my wife Miriam Neema for the endless support during my postgraduate studies. I also dedicated it to my Father in law Mr. Juma Simwelo for the inspiration and the person behind my courage to pursue the MBA programme

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ABSTRACT

The researcher aim was to ascertain what exactly affects the financial performance of Commercial banks in Kenya a case of Kenya Commercial Bank branches in Nairobi County. There are numerous elements that affect performance, this study focused on banking innovations that were thought to drive financial performance. The study was divided into three main common areas that had recently caught the attention of the banking industry namely internet banking agency banking and mobile banking that affect the financial performance of KCB bank Nairobi County. Nairobi County was chosen since it is the capital City and an epicenter of numerous commercial activities. The study's specific objectives were to determine the influence of agency banking, mobile banking, Automated Teller Machines and debit and credit cards on financial performance of commercial banks in Kenya. The study employed a descriptive research design. The study had a target population of 294 respondents. The sample size was 169 staff of KCB bank spread across the branches in Nairobi County. Respondents were selected using purposive random sampling. Structured questionnaires was used to collect primary data from respondents while secondary data was obtained from KCB, CBK, NSE and annual financial reports from the KCB bank. Measures of central tendencies was used to describe the results and data presented using graphs charts and tables.The effect and influence of dependent and independent variable was depicted by use of multiple regression. From the findings, It can be concluded from the findings that agency banking positively impacts (increase) commissions fee based income and positively impacts (increase) interest fee based income. Internet banking positively impacts (increase) commissions fee based income and positive impact on interest based income. Internet service has contributed to expansion of the income generating potential of commercial banks. ATM system compensates for wrongful deductions and the ATM problems are settled to my satisfaction. ATM contact person is available for redress of problems and ATMs were easy to use for transactions. Debit & credit cards have had a positive effect of increasing commission fee based income and have influenced positively the increase of interest based income. Further study ought to be conducted on effectiveness of banking innovations on financial performance of other commercial banks since this was a case of KCB bank. This may provide more understanding on how the different banking innovations affect financial performance of the banks.

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LIST OF ABBREVIATIONS

BI	Banking Innovation
CBK	Central Bank of Kenya
COB	Close of Business
FI	Financial Innovation
IT	Information Technology
KCB	Kenya Commercial Bank
SPSS	Social Package for Social Sciences
WB	World Bank

DEFINITIONS OF TERMS

Agency Banking: refers to a business carried out by a party on behalf of a bank as permitted under CBK that includes; cash withdrawal, bills payment and cash deposits.

Automated Teller Machine (ATM): it is also referred to as a Cash Point, Cash Machine, is a computerized telecommunications device that provides the clients of a financial institution with access to financial transactions that includes also withdrawal in a public space without the need for a cashier, human clerk or bank teller.

Credit card: is any card that may be used repeatedly to borrow money or buy products and services on credit. Card that may be used repeatedly to borrow money or buy products and services on credit. Credit cards are issued by financial institutions, retail stores, and other businesses. A credit card offers the card holder revolving credit that can be paid monthly with as little as the required minimum payment.

Debit card: is a card which allows customers to access their funds immediately and electronically. A debit card allows a client to borrow money and access to prepaid services.

Financial Performance: refers to means and strategies firms use to maximise the available assets or resources to get maximum revenues or income measured in terms of Return on Assets and Return on Investments.

Internet Banking: refers to the bank using internet as a platform of transacting instead of the clients having to use banking halls.

Mobile Banking: refers to the bank using mobile banking system where they can access banking services from the comfort of their homes using cell phones. These services include; funds transfer, balance enquiry and account information.

CHAPTER ONE: INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

This chapter highlights the background of the study, problem statement, general objectives specific objectives, research questions, scope, justification, limitations and assumptions of the study.

1.2 Background of the Study

1.2.1 Financial Performance

Financial performance is a subjective measure of how well an organization can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. There are many different ways to measure financial performance, but all measures should be taken in aggregation. Line items such as revenue from operations, operating income or cash flow from operations can be used, as well as total unit sales (Jayawardhera and Foley, 2000).

Profit is the ultimate goal of firm. To measure the profitability, there is variety of ratios used of which Return on Asset, Return on Equity and Net Interest Margin are the major ones (Murthy and Sree, 2003). ROA is a major ratio that indicates the profitability of a bank. It is a ratio of Income to its total asset. It measures the ability of an organization's management to generate income by utilizing company assets. In other words, it shows how efficiently the resources of the company are used to generate the income. It further indicates the efficiency of the management of a company in generating net income from all the

resources of the institution. Wong (2004) stated that a higher ROA shows that the company is more efficient in using its resources.

Globally banking industry has been the focal point of research and study by researchers and decision makers in the banking sector. It remains the centre of interest due to its being the foundation of many business and commerce transactions and a pillar to economies. The quest to have efficient and profitable banking businesses is very key especially for the banking sector that is full of competition and the ever changing economic environment. This is particularly true for developing countries. It applies specifically for emerging economies (Khatik & Nag, 2014) and in particular Kenya where commercial banks are the dominant players in the financial sector. It showcases the Kenyan economy where the banks are key players in the financial sectors being followed closely by insurance companies.

Some internal and external elements Soylu and Durmaz, (2013), have contributed to the growth of the commercial banks in Turkey. The internal factors are things like turnaround, time up time on the banks platform customer care and general organisational efficiency. However, the effects of bank-specific variables tend to be more significant in Kenya than the macro-economic variables. Specific configuration of the internal configuration of the bank contributes greatly to the performance of the bank more as compared to the microenvironment in the Kenyan Contest. These factors are as follows; capital components, liquidity client base management technology innovation and corporate governance. No researcher was able to give specific attention and measurable statistic to banking innovations as one of the many factors that has a big impact on the performance commercial banks in Nairobi County Kenya to be precise however in this study there is

broken down to innovations in to 3 areas agency banking mobile banking and Automatic Teller machine banking.

KCB bank has adopted a strategy to meet the new financial needs that are associated with emerging economies, this has pushed the bank to leverage on technology and innovation to structure products that will not only guarantee extra income but also lower the cost of availing the products and services. This has made it possible for the bank to partner with SMEs who act as agents, rolling out mobile banking systems and adopting latest internet banking platforms for service delivery.

1.2.2 Banking Innovation

Innovations and technological changes have come with great benefits to modern commerce. In order to get financial stability in firm's maneuvers and greater competitive advantages, businesses from last few decades have diverted their focus on making information technology an integral part of their operations (Oliveira, Faria, Thomas & Popovic, 2014).

According to Central bank of Kenya Banking sector survey innovation survey 2020 (ref)

One of the key pillars of the Kenya Banking Sector Charter issued in 2019 by the Central Bank of Kenya (CBK) was a keen focus on customer centricity the Kenyan banking sector is renowned for its uptake of technology to meet customer expectations for "anytime anywhere" financial services, and to drive efficiency gains. As part of aligning to the Charter, the sector has witnessed the diversification of products tailor made to meet the ever-changing customer needs while improving the competitive edge of the institutions. While institutions have been successful in leveraging technology to achieve their

objectives, primarily as a cost reduction strategy, there is a change in focus towards an alternative strategic coin, where technology is no longer perceived as a cost saver but as a revenue generator. Furthermore, with the onset of the coronavirus pandemic (COVID-19) in 2020 and the resultant disruptions to the lives and livelihoods of individuals in the economy, and the impact to businesses, including banks, it is evident that innovation will be a critical point in adapting to the new “business as usual”.

1.2.2.1 Agency Banking

Agency banking has been seen as the delivery of financial services outside conventional bank branches after using non-bank retail outlays that rely on technologies such as point-of-sale (POS) devices or mobile phones for real-time transaction processing (Ombui, 2019). From the definitions given, it can be said that Agent banking is a tool used in other emerging economies to: expand demand for banking services, decongest bank branches, reduce the cost to serve, and achieve financial inclusion. It also holds a promise of a low-cost means of market penetration by banks and other financial institutions, especially into the rural areas.

According to Mwariri, and Awuor (2020), electronic banking provides enormous benefits to consumers in terms of the ease and cost of transactions but it also poses new challenges for country authorities in regulating and supervising the financial system and in designing and implementing macroeconomic policy. Electronic banking also makes it easier for customers to compare banks' services and products, can increase competition among banks, and allows banks to penetrate new markets and thus expand their geographical reach.

1.2.2.2 Mobile Banking

Susanto (2017) and Farah, Hasni and Abbas (2018) are among the studies which provide empirical supports on the mobile banking application based on the service quality. For instance, Susanto (2017) analyses the Indonesian data and find that mobile banking is significantly and positively have effect on the level of service at commercial banks with the value of significance at level 0.05. The impact from implementation of mobile banking led to the increasing of the banking transaction to Rp. 6447 Trillion or RM 1.74 trillion. While Farah, Hasni and Abbas (2018) studies the mobile banking adoption in banking sector of Pakistan. This study shows that the variables used which are performance expectancy, perceived risk and trust for the bank are highly significant to the usage of the mobile banking.

Agwu (2018) investigate the effect of electronic banking growth of deposit money banks in Nigeria using a time series data in the period from 2006 to 2012. The result reveals that there are a positive and significant relationship between mobile banking and total deposit. Purpose of their study was to evaluate the financial innovation like internet banking and mobile banking for banks to attract more deposit Kashmari, Nejad and Nayebyazdi (2016). The study was conducted in Iran using data from 23 Iranian banks in the year of 2007 until 2013. The result based on Granger causality test shows that every variable used including mobile banking has causal relation in affecting the increases banks share to attract deposit.

1.2.2.3 Automated Teller Machines

The relationship between banking efficiency and the use of ATM (Automated Teller Machine) is a complex one. This is because the overall levels of efficiency and productivity do influence the organization overall success. This explains why most modern banking sectors develop ways of increasing organization and workers' efficiency. Some of these

ways include goal setting, job enrichment, adoption information technology, globalization, training and development (Mukamunana, 2019). All these represent several practical ways of increasing banking sector's performance, which could also be a reflection of institutions efficiency.

Torki, Rezaei, and Razmi, (2020), postulate that ATM allows a bank customer to conduct his/her banking transactions from almost every other ATM machine in the world. However, the spread of the machines has been generating a lot of heat, as customers face a splurge of frustration in using it; either the machines will not dispense cash, or debit transactions when cash is not dispensed or cards get stuck in them. The proliferation of the machines is giving more concern. As with every other technological breakthrough the ATMs have generated astronomical challenges and problems for the beneficiaries of financial services in most countries. Most users of ATM have encountered the problem of scam. Apart from epileptic services rendered by the machines, faceless crooks steal from the accounts of hundreds of bank customers via the ATM technology. The fraudsters perpetrate this financial crime by stealing the personal identification number, PIN, a special secret code that grants access to the usage of the cards, and consequently, getting hold of the funds of the susceptible ATM users.

1.2.4..4 Debit and Credit Cards

Debit cards have surpassed credit cards to become the most common form of Visa point-of-sale ("POS") transaction in most parts of the world. Overall, debit cards were used for over 15.5 billion POS transactions totaling $700 billion in the year 2002 in the United States. This represented about 35% of electronic payment transaction volume and 12% of POS noncash payments (Rahayu, Mariska, & Garantjang, 2022). Debit's ascension has been

sudden, with 47% of households using it by 2001, up from 18% in 1995. Industry observers predict continued strong growth for debit, while forecasting relatively weak growth in credit card charge volume.

Despite debit's growth and prominence, the determinants of debit use have largely escaped academic scrutiny. The introductory quotes belie that fact that there are actually potentially important, pecuniary cost-based reasons for using debit. Principally, the 53% of credit card users who revolve balances incur interest costs to charge purchases on the margin (they don't get the float), and hence might rationally choose to use debit rather than credit in order to minimize transaction costs (Njoroge & Mugambi, 2018)). This motive holds even for the "small" fraction of consumers who simultaneously hold nontrivial stocks of low-yielding liquid assets and expensive credit card debt. Debit use might also be rational for consumers lacking access to a credit card or facing a binding credit limit.

1.3 Statement of the Problem

Despite the obvious value of financial innovation in describing banking performance, the effect of innovation on performance is still confused for two major reasons: first, lack of awareness of the generators of innovation; and second, the influence of innovation on bank performance remains untested (Mabrouk & Mamoghli, 2017). A research by De Young et al. (2017) adopts an approach to innovation performance relations that does not take into consideration the antecedents of innovation inside and outside banking institutions, both of which may affect this relationship

Previous studies such as Franscesa and Claeys (2017), Batiz-Lazo and Woldesenbet (2016) and Mwania and Muganda (2018) have provided mixed findings on the effect of financial

innovations on bank performance. In their report, Franscesa and Claeys (2017) concluded that financial innovation had the least impact on bank performance, while Batiz-Lazo and Woldesenbet (2016) and Mwania and Muganda (2018) concluded that financial innovation had a substantial contribution on bank results. It is at the core of such mixed results that it has generated and necessitated the need to carry out an analysis from the Kenyan perspective in order to determine the influence of bank developments on the efficiency of commercial banks. Kenyan commercial banks have started to spend extensively in technology-based creativity and staff preparation in the handling of emerging innovations. Data from Central Bank of Kenya (2021) Number of ATMs in Kenya 2019-2021. As of June 2021, Kenya had **2,401** automated teller machines in operation. The number of ATMs available in the country has been fluctuating in the period examined, with an overall decreasing tendency. In June 2019, 2,522 cash points were active.

1.4 Purpose of the Study

The general objective of the study was to determine the influences of banking innovations on financial performance of commercial banks in Kenya.

1.5 Objectives of the Study

The specific objectives of this study will be:

i. To determine how agency banking influence financial performance of commercial banks in Nairobi County, Kenya.
ii. To determine how mobile banking influence financial performance of commercial banks in Nairobi County, Kenya.
iii. To determine how Automated Teller Machines influence financial performance of commercial banks in Nairobi County, Kenya.

iv. To determine how debit and credit cards influence financial performance of commercial banks in Nairobi County, Kenya.

1.6 Research Questions

i. How does agency banking influence financial performance of commercial banks in Nairobi County, Kenya?

ii. How does mobile banking on the financial performance of commercial banks Nairobi County, Kenya?

iii. How does mobile banking influence financial performance of commercial banks in Nairobi County, Kenya?

iv. How does Automated Teller Machines influence financial performance of commercial banks in Nairobi County, Kenya?

v. How does debit and credit cards influence financial performance of commercial banks in Nairobi County, Kenya?

1.7 Significance of the Study

The study is of great significance to the National government and its related bodies like CBK, Ministry of Finance, the Treasury and other related organs in policy formulation and creating an enabling environment for the growth of the banking sector.

Investors may use the study findings as a yardstick to make key business decisions like measuring risk, calculating the capital requirements, the market index and much business analysis pertains to the banking industry.

The findings of this study are expected to be of importance to the Kenya Commercial bank who would benefit from increased financial innovations should the study positively apprise

the same. Such innovations such agency banking would end up contributing positively to the economy and reduce the number of unbanked citizens in the country.

Researchers and scholars who focus on the performance of commercial banks may use report and results to further shape and give a foundation to the studies there studies. The study findings are expected to be a point of reference for the government policy makers in formulating solid, broad and balanced policies that lay foundation for banking innovation.

1.8 Scope of the Study

This research was limited to investigating the influence of financial inclusion on financial performance of KCB. The geographical scope of the study was limited KCB Nairobi, County. The Research study covered issues relating to Internet banking, agency banking and mobile banking and general factors on financial performance KCB. The research study covered period between August 2019 to January 2022.

1.9 Delimitation of the Study

This research only covered four aspects of innovative banking, which is mobile banking, agent banking, ATM machines and debit and credit cards; the study did not cover other aspects beyond the four. The study focused on financial performance of KCB banks in Nairobi County.

1.10 Limitations of the Study

There was reluctance among the respondents targeted in this study in giving information due to fear that the information might be used to print a negative image about their organization. The researcher was able to mitigate this by attaching an introduction letter from the university in order to show that the research was confidential and purely for

academic purposes. Other limitations included the vastness of the study area which would take a long time and finances to carry out the research. The researcher mitigated this by deploying research assistants to help in giving out questionnaires in the different KCB bank branches within Nairobi County.

1.11 Assumptions of the Study

The basic assumptions of this study were:

(i) Banking innovation influences financial performance of banks.

(ii) Kenya Commercial Banks management provides an enabling environment for the development of banking innovations.

(iii) The respondents would give answers to questions asked by the researcher.

1.12 Theoretical Review

The following theories have been employed to review the literature they are namely agency theory and Schumpeter of innovation.

1.12.1 Agency Theory

According to (Kala Kamdjoug et al., 2020) an agency relationship is one in which "one or more persons; the principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent". The most popular and most recognised theory is the Employee and employer relation. The other example is the country (principal) and the high commissioner (agent); the constituency members (principal) and the elected members of parliament (agent); the company (principal) and lobbyist (agent); or shareholders (principal) and the board or the chief Executive Officer.

Agency theory examines the special relationship between the principal and the agent with the view of checking the challenges merits or demerits of the same, particularly the dilemma that the agent and the principal, while looking forward to achieve the same objectives sometimes it is not always the case. The paper focuses on the methodologies and systems that enforce the existing relationship between the principal and the agent. While the agent/principal dilemma in a corporate context had been pondered as early as the 18th century by Adam Smith and many of its key concepts were developed in literature on the firm, organizations, and on incentives and information a separate theory of agency did not emerge until the early 1970s.

Ross submitted the paper Economic agency of theory: The Principal's Problem at the annual meeting of the American Economic Association in December 1972. This paper denoted the agency theory as a global phenomenon not only limited to the firm. Even so, the rather brief paper limited its scope to the problem of incentive and laid out a model for inducing the agent to produce maximum gains for the principal. By contrast, Mitnik's paper 6, entitled Fiduciary Rationality and Public Policy: The Theory of Agency and Some Consequences and presented at the annual meeting American Political Science Association in 1973, laid out a much more general theory of agency with possible application to numerous societal contexts.

Mitnick identified the problems of agency as the principal's problem, the agent's problem, and policing mechanisms and incentives. The principal's problem is to motivate the agent to act in a manner that will achieve the principal's goals. Examples of motivational tools are financial incentives, prospect of sanctions, and supplying information to activate norms and preferences that coincide with the principal's goals. The agent's problem is that he may

be faced with decisions to act either in the principal's interest, his own interest, or some compromise between the two when they do not coincide. Policing mechanisms are mechanisms and incentives intended to limit the agent's discretion, such as surveillance or specifically directed tasks. Incentive systems are mechanisms that offer rewards to the agent for acting in accordance with the principal's wishes, such as bonuses and increased pay (positive incentives) or fear of reprisals (negative incentives). The problem with policing and incentives is that they create costs for the principal; this creates a potential paradox in that it is only rational to implement policing and incentive mechanisms if the increased return to the principal's objective outweighs the cost of policing and incentives. Mitnick concluded by noting that he had created only a basic framework around which to further develop agency theory.

Managerial Behavior, Agency Costs and Ownership Structure. As part of a broader theory of the firm, this paper further explored agency costs and its sources. Like Mitnick, Jensen and Meckling identify monitoring the agent's actions as a source of agency cost, but they also identify at least two other sources: bonding costs borne by the agent (such as bonding against malfeasance, contractual limitations on his power, which limits his ability to take full advantage of profitable opportunities, foregoing certain nonpecuniary benefits, etc.), and the wealth loss borne by the principal when the agent's actions do not maximize his welfare (referred to as "residual loss").

While the previous agency theory literature had focused on how to structure incentives and the principal/agent relationship to maximize the principal's welfare, Jensen and Meckling presume the parties largely resolve these issues. Instead Jensen and Meckling "investigate the incentives faced by each of the parties and the elements entering into the determination

of the equilibrium contractual form characterizing the relationship between the manager (i.e., agent) of the firm and the outside equity and debt holders (i.e., principals).” To that end, they compared the management behaviors found in two different firm structures: one where the manager owns 100% of the firm versus when the manager sells an equity share to outsiders. In the former structure, the owner/manager will act to maximize the firm's welfare because the full benefit of this maximization will accrue to him. Maximization occurs when the marginal. This theory is relevant to this study since the researcher will be able to discover and understand why many organisations are embracing agency as a business a model, the researcher will be informed of the advantages and disadvantages of agency and its impact to financial performance of KCB bank.

1.12.2 Schumpeter Theory of Innovation

YuSheng and Ibrahim, (2020) Innovation is considered a key driver for long-term success of firms in today’s competitive markets. This study explored the effect of innovation adoption on performance of banks in Ghana. Data for the study were obtained from 450 respondents comprising bank employees and customers in the Kumasi metropolitan area in Ghana.Groups of investors endeared by super-profits would start a series of investment that would eat back into the profit margin for the innovation.

However, before the economy could come to an equilibrium a cluster of innovations, would emerge to commence the business cycle over again. He emphasized the role of entrepreneurship and the pursuing of opportunities that would spur the generating activities which would increase the flow of income, but it did so with reference to a distinction between invention or discovery on the one hand and innovation, commercialization and entrepreneurship on the other. This separation of invention and innovation highlighted the

typical nineteenth century institutional model of innovation, in which independent inventors typically fed discoveries as potential inputs to entrepreneurial firms. The author further looked innovations as creative destruction that were essential forces driving growth rates in a capitalist system. Schumpeter's thinking evolved over his lifetime to the extent that some scholars have differentiated his early thinking where innovation was largely dependent on exceptional individuals/ entrepreneurs willing to take on exceptional hazards as an act of will.

Financial innovation is the act of creating and then popularizing new financial instruments as well as new financial technologies, institutions, and markets. It involves the design, the development, and the implementation of innovative financial instruments and processes, and the formulation of creative solutions to problems in finance.It is beleived that innovation is an essential element for economic progress of a country and competitiveness of an industry. innovation is one of the most important competitive weapons and generally seen as a firm's core value capability. Innovation is also considered as an effective way to improve firm's productivity due to the resource constraint issue facing a firm

Globalization and increasing market competitiveness have driven financial institutions toward innovativeness in their operation to gain sustainable competitive advantage and improve their financial performance. Financial institutions are not only competing on. 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. 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. Associated with this rapid expansion in

the banking sector is a range of financial innovations: the ATMs and debit cards introduced in the late 1990s; the electronic money introduced in early 2007; Value capping in 2009: the agent banking model introduced in mid-2010; Cheque Truncation System (CTS) in 2012 and more recently T+1 (cheques clearing in one day) Other innovations in banking and financial sector are RTGS, EFT, ACH, MICR, Retail Banking, free advisory services, implementation of standing instructions of customers, payments of utility bills, fund transfers, internet banking, telephone banking, mobile banking, selling insurance products, issue of free cheque books, travellers cheques and many more value-added service.This theory is relevant to our study because the researcher will get to understand what drives innovations and how it is able to impact and bring the corresponding change in a business environment and by what extent.

1.13 Conceptual Framework

A conceptual framework provides the connection between the research topic, the objectives, the study methodology and the literature review gives link between title dependable variables independent variables how they connect and relate to each other. In this study, the dependent variable is financial performance measured by Return on Assets (ROA) and Return on Investment (ROI) while the independent variables was agency banking, mobile banking, Automated Teller Machine and debit and credit cards as shown in Figure 1.1.

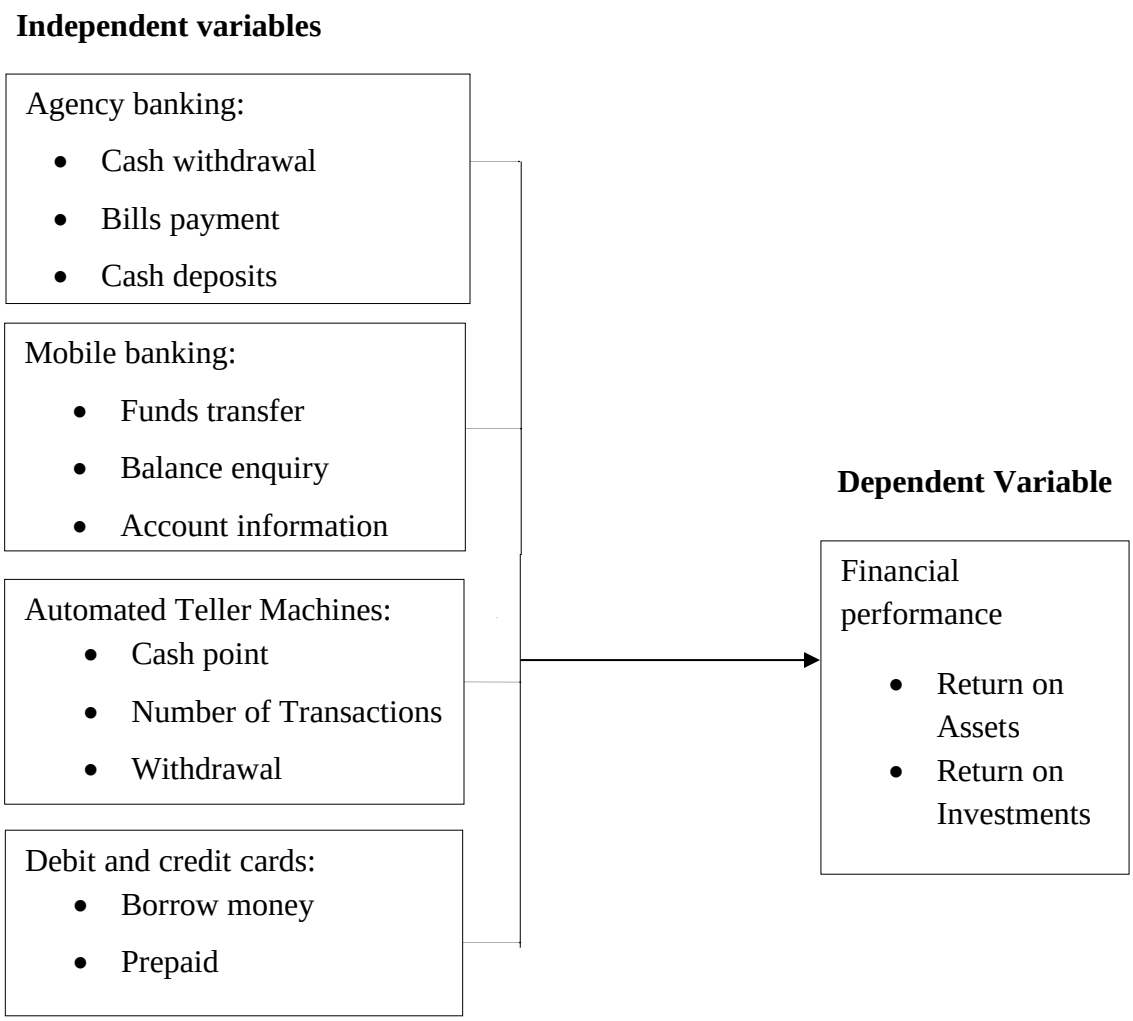

Figure 1.1: Conceptual framework
Source: Author (2022)

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The chapter looks at theoretical and empirical literature visa vie the research gap. It explores both the independent and dependent variables being investigated and highlights the relationship between the variables as depicted by the research.

2.2 Empirical Review

This section looks at the global and local information, that is available majorly on the this specific topic, to highlight a thorough understanding of the topic and how other scholars have responded within different perspectives but in the same line and school of thought.

2.2.1 Influence of Agency Banking on Financial Performance

According to Cytonn Investments (2020), with the growth of mobile and agency banking, penetration in the market has increased and this led to a greater number of transactions as well as offer loan products to the mass market From the research findings of effect of Financial Innovations on financial performance of Savings and Credit Co-operative Societies in Kenya, a case of Kakamega Teachers Co-operative Society Limited the results revealed that financial innovation factors do not account for 100% change in financial performance.

The findings show that market share and return on investment are the most important factors in the innovation performance of retail banking services. This situation gives information that the when banks are more successful in the market, they can make investment to the innovation more effectively. (Wang et al., 2020) entitled Innovation of financial performance of Retail banking industry was positively influenced by various financial innovations such as agency banking, online banking, mobile phone banking and ATM banking in a period of 5 years between 2009 and 2013. Similarly, financial performance of the banks in Kenya was found to be affected significantly and positively by financial innovativeness and innovativeness dimension. Contrary, a study by (Hisham Said & Kaplelach, n.d.) The study concludes that new m-banking products influence financial performance of selected commercial banks in Kenya. Banks have developed innovative products and offered a wide range of services in an effort to increase efficiency which is the ultimate goal of banks. Mobile banking platform brought numerous mobile product and services. Some of the products and services include deposit making, withdrawals, and funds transfer and self-care services. The products and services generate revenue to the commercial bank thus enhancing financial performance. The study makes a conclusion that mobile banking cost negatively affects financial performance. Operating a mobile banking platform attracts some costs. The cost includes expenses on acquiring mobile banking operating system, hardware requirements and expenses on human resource personnel to operate and maintain the platform. The expenses eat into some of the total revenue collected through mobile bankingThe ultimate goal for banks is to maintain a certain level of customers that will enable them generate profits. Therefore, the aim is to retain existing and gain new customers. By so doing, customer growth becomes a

paramount objective for the banks. Commercial banks are coming to terms to the fact that the growth in revenue cannot be put aside but means and strategies are to be developed to achieve income growth and to make revenue streams sustainable in the long run. There must be a strategic shift from attaining efficiency to pushing revenue growth, increase in market share, customer retention and growth since all revenues come from good customers that transact often. Markets are transforming themselves into segments with special needs and want that if banks look close enough and give attention it can be a source of great income. Services and products can be tailor made by the banks to achieve this kind focus to these special groups like institutions, retires, the youth, civil servants and small and medium size enterprises, products such as mobile loans can be established to meet that need

Agency banking gives banks an opportunity to reach out to customers' right at the doorstep, and this can be achieved by riding on the infrastructure of small and medium enterprises (Linyiru & Rutto, 2017). They use their existing client base to sale banks products like account opening, depositing and withdrawals; this achieves the growth of revenues since the bank will reach out to many people by the fact that there it is easy for agents to recruit customers because of proximity. Agency banking is the new vehicle that will push retail banking to the new level of increase in customer base that will help generate more income mostly because of the convenience in banking since they won't have to queue in the banking halls but can access banking at the neighbourhood. This is a clever way of increasing market share.

2.2.2 Influence of Mobile Banking on the Financial Performance

Thio and Yusniar, (2021) The Influence of Mobile Banking, Company Size, Credit Risk on Indonesian Banking Financial Performance. Case Study on Conventional Banking Companies Listed on the Indonesia Stock Exchange 2016 - 2020. The purpose of this study is to analyze the effect of mobile banking, company's size and credit risk on the financial performance of Indonesian banks based on Return on Assets (ROA), Return on Equity (ROE) and Operating Costs to Operating Income (BOPO) in banking companies listed on the Indonesia Stock Exchange in 2016 – 2020. The type of research used is explanatory research, with the unit of analysis in this study covering research variables consisting of Mobile Banking, company size and Credit risk or Non Performing Loan (NPL) as independent variables, Return on Assets, Return on Equity and Operating Costs to Operating Income as the dependent variable, which is obtained from the financial statements of banks listed on the Indonesia Stock Exchange for the period 2016 – 2020. The sample of this research is 20 banks. The analytical techniques used in this study are path analysis and multiple regression analysis. The results of the study indicate that mobile banking has no significant effect on the financial performance of Indonesian banks. The other independent variables measured using firm size and NPL have a significant effect on the financial performance of Indonesian banks which are measured using ROA, ROE, BOPO.

The impact of internet banking services on the performance of Greek banks. Using an econometric model the authors underline a positive and significant relationship between the implementation of internet banking services by Greek banks and the diminishing of their overall operating expenses. However, the profitability of the Greek banks seems not

to be affected by the adoption of internet banking services.Studys about the effective factor on adopting mobile banking on customers in Iran. They are using only one sample of bank which is Saderat Bank that consist of 350 respondents are using mobile banking services. The result from this research show that among all variables used, the cost of using and profitability of banks are ranked higher by customers as an effective factors in their usage of mobile banking.

Bank performance is one of the important issues in the banking sector. Bank performance is measured by using a combination of financial ratio analysis, benchmarking or by measuring profit against cost. Bank performance is referred to the proportions of bank in generating profit. One of the aspects that enables bank to analyse their financial and operational activities based on the CAMEL (capital adequacy, asset quality, management, earning and liquidity) framework. Other than that, the revolution of mobile banking also could affect the performance of the bank. According to Shevlin (2018), the introducing of mobile banking facilities is one of the crucial part of banking system. It could increase the interest of consumer and providing facilities like paying bills and checking balances.

Studies about the attitudes of users and non-users in the adoption of mobile banking. The research utilized innovation diffusion framework on the sample of 128 users and 338 non-users of m-banking. The findings of the research suggested that relative advantage, complexity, compatibility, perceived risk and trial-ability are significant to influence M-banking adoption. The study also asserted the major contribution of Perceived risk, compatibility and trial-ability in effecting Saudi consumers' decision to adopt M-banking.

Ouma and Ndede, (2020) study also found that mobile banking lowered transaction costs by removing the need for customers visiting banks branches; mobile banking transactions transferring funds between customer-related accounts was simple and efficient; m-banking transactions increased the customer base; and customers were able to check an account balance or check recent transactions on their mobile phone devices. The study found that agency banking eased the conduct of business, and financial inclusivity was assured by agency banking.

In Kenya, agrees that mobile banking has changed and shifted the transfer of cash and has resulted into many innovative initiatives that have brought down the cost for the bank.in the last couple of years the bank has recorded an increase in commission income from the mobile banking stream. Kenya is the leader in the mobile banking money transfer category this transformation of money transfer business has translated to more incomes and profits to the banks. There is going to be a shrink in traditional means of money transfer and an upsurge of mobile banking money transfer due to the advantages that come with mobile banking money transfer platform. A large percentage of retail transactions depend on mobile money transfer as a popular means of transacting, money moves from the bank account to e-wallets and vice versa it allows an efficient circulation of cash in the economy.

2.2.3 Influence of Automated Teller Machines on the Financial Performance

Automated Teller Machines (ATMs) have been playing a pioneering and pivotal role in the advancement of this technological transformation of the banking scene. At the same time, bank marketing managers need to assess continuously the customer's decision-making process as well as the formation of attitudes, preferences and satisfaction with these new automated services The research found low maintenance costs for ATMs; and investment

in ATMs was mainly driven by bank income. The study concluded that agency banking had the greatest influence on the financial results of Tier One commercial banks in Kenya, mobile banking was followed by Automated Teller Machine (ATM) banking, while internet banking had the least effect on the financial performance of Kenya Tier One commercial banks (Kamdjoug et al., 2020). The study suggests that all tier one commercial banks should take advantage of lower internet rates to reduce their transaction costs, which in return would attract potential customers, thereby building consumer loyalty.

Key. They found out that first mover initiative in product innovation improves profitability while process initiative has a positive effect on profitability and efficiency. Banks that imitate are less profitable and less efficient than first movers.

It was found that the main reason for using the ATM was accessibility. The user group believed that the ATM improves quality of service, reduces cost, presents no risks to customers, and is fast and easy to use. The non-users saw no advantage to using the ATM and preferred dealing with humans. The user group was generally more educated. It is apparent that financial institutions must develop different strategies for user and non-user groups. Non-users should be educated on how to operate the machines. Human tellers, while offering personalized service, could demonstrate the functions of the ATM. In addition, the machine could be placed inside the bank near the human teller in order to entice usage. However, while these new technologies may offer significant advantages to the consumers, many are unwilling to adopt them. A large number of consumers are resistant to new ways of doing their banking, especially when the new way represents loss of personal contact.

A study on ATMs and service delivery in Kenya found a high degree of customer complaints with ATM downtime, cash out, high charges and sometimes, poor service recovery efforts when customers have problems. It appears the bank managers have very little understanding of customer's expectations with the ATMs. The study addresses these research gaps and makes two contributions to the e-banking service quality literature. The study proposes "ATMqual" as a scale for measuring the dimensions of ATM service quality. Second, the study evaluates the relative importance of these dimensions based on the perceptions of customers and provides insight into ATM service quality in a region often under-researched in academic discourse and inquiry. The study among others enable bank managers to focus on and address issues critical to the increasing number of customers who perform their banking transactions through the ATM.

2.2.4 Influence of Debit and Credit Cards on the Financial Performance

Credit cards have become a fact of life for the most consumers and are a part of the consumer culture. Staggering credit card statistics provide evidence of their pervasiveness. As of 2011, seventy-seven percent of the US adults owned at least one credit card, with a total of 1.4 billion cards in circulation. The average cardholder owned 7.7 cards and uses a credit card 119 times a year charging an average of $88 per transaction or $10,500 annually (my FICO, 2012). By the end of 2011, with the unfolding of America's economic crisis, the average household credit card debt reached $16,420 (Federal Reserve G.19 March, 2012).

Despite signs of growth, the economy is still emerging from the worst recession in the recent memory, a phenomenon that hit the credit card issuers hard. With consumers spending less regulatory pressures constraining fees and interest rates. Credit card issuers

have experience a material impact on income coupled with increases in delinquencies and charge-offs, card issuers have had to weather nearly unprecedented turbulence. A common challenge faced by the global credit card industry is compacting attrition and diminishing wallet share, particularly as consumers exhibit an increasing preference for debit over credit card. To cope with this, the credit card issuers are implementing aggressive anti-attrition, pro- retention strategies.

The use of the credit cards in the society has affected not only traditional consumers, but also vulnerable groups, such as college students, senior citizens, and disabled citizens. College students have grown up in the age of credit, becoming independent consumers earlier in life, and constantly exposed to new products and services available through credit cards. Along with technology and the expansion of the internet, they become an appealing demographic group for credit card companies and financial institutions for a variety of reasons. Solicitation on college campuses has caused concern among college officials, consumer advocacy groups and legislators.

Past investigations on the credit card usage have acknowledged the role that the credit cards play on the financial performance of commercial banks. The study on the effect of the credit cards on the performance of commercial banks portfolio in Kenya particularly in Migori town acknowledges the fact that the credit cards have a positive effect on the financial performance of the commercial banks in Kenya. Kamal in the study on the effect of the electronic credit card usage on bank's profitability agrees with that there is a positive effect between the number of the credit cards, the net income from the credit cards and the profitability of the commercial banks.In this study the effects of financial innovation on financial performance of commercial banks found out that some banks in Kenya had

adopted some forms of financial innovation like the credit cards, mobiles and agency banking and these had a great impact on the financial performance of commercial banks.

2.3 Knowledge Gap

Although studies have been done on banking innovations, there is still knowledge gap that needs to be filled. For example a study done by (Olwande & Ngaba, 2019) on innovation adoption and management of innovation acknowledge found out that the best technology does not constantly turn out to be the most extensively accepted. While the specialists in innovation economy find that technological trajectories make some innovation trails more probable than others, the complex relationships between market demand and technological supply cannot be taken severely with allusion to the technology nature. Even in the organization structure and elements of technology that has contended for the strongest relations between the organizational forms and nature of technology, there is a gratitude that technological change is a time for restructuring, and the technology can at times dissimilar organizational results. This study did not cover the effect of ATM and debit and credit cards on the financial performance of banks.

An extensive array of technological innovation study by Linyiru and Rutto, (2017) proposes that the innovation process varies between ages of comparative stability and times of comparative variation. This study does not cover commercial banks. Study on business strategy and innovation specifically has contended that the nature of innovation varies as time passes by. Times of more incremental innovation, in which technology appears to develop along well understood tracks, are then abruptly followed by periods of more radical innovation, in which the certainties of the past era are abandoned. Ultimately, a radical innovation turn out to be more extensively recognised, and settles back into

moderately well comprehended incremental innovation. The economists of innovation denote to times of alteration in which the way of technological innovation alternates in the lifecycle of a technology This study did not cover the influence of agency and mobile banking on the financial performance of commercial banks that this study covers.

2.4 Summary of the Reviewed Literature

Previous literature reviewed empirically, shows that profitability in micro and macro levels has made academicians, researchers, bank regulatory authorities and bank managements have interest in researching on the factors that determine bank performance. A number of factors influencing bank performance have gotten attracted attention lately. These comprise factors such as industry specific factors, internal bank specific factors, and external macro-economic factors. Nevertheless, the influence of bank specific variables is likely to be more noteworthy in Kenya than the macro economic variables.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presents the research design used in the study. The chapter discusses the research design and its applicability to meet the objective of the study. It also covers the research site and rationale, the target population and sampling procedure. The sample size, data collection procedure and data analysis are also presented.

3.2 Research Design

The study adopted a descriptive research design so as to achieve the study objectives. A descriptive study describes a given subject, this is done by creating a outline of a group of problems, events, or people, through data collection and frequency tabulation guided by the research variables and their relationships (Cooper & Schindler, 2011). Cooper and Schindler suggest that descriptive researches makes part of quantitative research design, whose goal is to show the relationship between dependent and independent variables or outcome variable in a population, examining the associations between variables. For this study, the design involved determining the causal effect of banking innovation (independent variable) on financial performance (dependent variable).

3.3 Research Site and Rationale

The geographical scope of the study was limited to Kenya Commercial Bank Nairobi, county The Research study covered issues relating to Internet banking, agency banking and mobile banking and general factors on financial performance Kenya commercial bank. The rationale for choosing KCB was because of its well laid and tested structures and its existence in the system for a long time.

3.4 Target Population

As indicated by Cooper and Schindler (2011), target population is explained as the set of all the individuals of interest in a particular study. This study targeted the 31 senior management, 54 supervisors and 209 support staff in the 27 KCB group branches in Nairobi County. The target was 294 respondents made up of managers of ICT department, finance of these banks, MIS analysts and card centre and operations at the head office.

Table 3.1 Target Population

Target population	Size
Senior management	31
Supervisors	54
Support staff	209
Total	**294**

3.5 Sampling Procedure

According to Cooper and Schindler (2010) a sampling procedure is a method of determining the elements in the representative sample. This research used non-probability sampling because this was a social research and the main objective was not to give an equal opportunity to the entire population but to select the population that had the ability to address the issues under study. Purposive sampling which falls under non-probability sampling methods was used in this research. The researcher obtained organizational structures of KCB with their membership to committees, staff levels and departmental structures from the HR departments for use in getting information for purposive sampling.

3.6 Sample Size

Yamane formula was used by the researcher to generate a sample size. Ngechu (2004) asserts that Yamane formula is suitable for defining the sample size in cases where the size of population is large or small as it presents an illustrative sample size. Ngechu (2004) further contends that Yamane formula 95% confidence level was reliable. The formula was;

$$n= N/ [1+ N (\varepsilon)^2]$$

Where n is the size of the sample, N is the size of the study population while ε is the deviation of the sample (error term). Based on Ngechu (2004) argument, the researcher considers confidence level at 95% with 5% error term. Hence, using total population of 294 and error term of 5%, the sample size was as calculated below.

$$n=294/ (1+294*(0.05)*(0.05)) = 169$$

The researcher used a sample size of 169 respondents representing 57.48% from a target population that totaled to 169 respondents. This was obtained from the different departments in the Bank. This number represents the target population for purpose of reliability, flexibility and efficiency (Mugenda, 2008, Dillman, et al., 2011). Hence, 169 respondents made the sample size. Additionally, in every stratum, the participants was as shown in Table 3.2.

Table 3.2 Sample Size

Study population Categories	Target Population	Sample size
Managers	31	18
Supervisors	54	31
Support staff	209	120
Total	**294**	**169**

Source: Author (2022)

3.7 Research Instruments

This study collected data by use of questionnaires. Burns and Grove (2003) indicated that questionnaires are opulent in being used in qualitative and quantitative study. The questionnaire was largely made up of closed ended questions. The tool was made up of parts to cover every objectives. Questionnaires were suitable for the research as not only do they permit for the collection of homogenous information but are also comparatively cheap to administer and analyse easily (Creswell, 2009). Secondary data on financial performance was collected from data comprising of ROE that was gotten from CBK's annual bank supervision statements and also the bank's yearly financial statements.

3.7.1 Piloting of Research Instruments

Before the questionnaire was used for the actual study in data collection, the researcher carried out a pilot study. This was done in order to detect ambiguity as well as evaluated the kind of answers being used to cover the objectives of the study (Robson, 2007). As asserted by Mugenda and Mugenda (2003) a pre-test sample ought to be between 1% and 10% of the sample size. The pilot study therefore used a pre-test sample of 5% of sample

size. The piloting was carried out at the KCB Kenya, Moi Avenue branch in Nairobi County which was not involved in the actual study.

The questionnaires were issued by self-administering and interpretation was done of the response. Order of response alternatives was similarly changed for questions with normal scale to assess the validity and reliability. Meanwhile, respondents' choices were evaluated for appropriateness. The researcher also verified if the questions were comprehended the same way by the respondents. The average time that was taken to fill the questionnaires was noted down and results from the pilot test was deliberated with the supervisors and alterations made as per the findings of the tools review and pilot test before questionnaire was used for the actual study.

3.7.2 Instrument Validity

Pre-testing of data collecting instruments can be done by using a pilot study. Validity refers to the degree that a test measures what it is supposed to measure. It is interested with the degree to which the tool gives similar results on repetitive attempts. Pre-testing of the instruments was performed before carrying out the actual study. This assisted in determining the reliability of the instrument. The researcher sought assistance from his supervisor, in order to help improve content validity of the instruments. The researcher ensured validity by restructuring the research items in simple language and limiting the number of items while ascertaining that they capture the targeted data after piloting.

3.7.3 Instrument Reliability

Reliability refers to the degree of measure that a tool gives consistent findings or information after a number of repeated usage. Mugenda and Mugenda (2003) asserted that

data collected from pre-testing is important in revising the tool for research. For instance, in the pre-testing of questionnaires, a researcher can make required adjustments before embarking on the actual study. This was done by the same respondents being given the questionnaire to fill twice in different times within a period of one week. The reliability analysis of the examination estimates was evaluated by figuring Cronbach's Alpha coefficient for all things in the questionnaire and the general appraisal given. The Cronbach's alpha coefficient runs in the range of zero and one with higher alpha coefficient esteems being increasingly reliable.

All question items that had a Cronbach's alpha coefficient of 0.7 or more and were perceived as being reliable henceforth used in the research. A lower coefficient led to examining the questions and modifying the mistakes, vague questions were made clear. This was done by again performing the reliability test up to when the coefficient was 0.7 and above. This was done by revising the questions or adding more questions to the variables with a low value of the alpha coefficient.

3.8 Data Analysis and Presentation

Data analysis is the process of bringing order, structure and interpretation of mass collected data (Marshall & Rossman 1999). Collected data was organized systematically in an appropriate manner to simplify the analysis. Data analysis included preparation of the gathered data, coding, editing and cleaning before processing using the SPSS package version 23.

3.9 Ethical Considerations

The study only reported factual results and make sure there is no making up of findings, recordings or reports. Appropriate credit was given to ideas from other people. Also, the researcher needed an introductory letter from ANU so as to use it to introduce himself to the respondents. The introduction letter from ANU was then given to the local authorities for permission to collect data from the selected areas. A permit for data collection was obtained from National, Commission for Science, Technology and Innovation (NACOSTI). The researcher maintained objectivity while conducting the research so as to be able to get reliable and accurate data. Permission was sought before starting recording sessions.

The researcher sought consent from the respondents before collecting data for purpose of confidentiality. The researcher explained to the respondents about the study beforehand so as to gather information which is relevant. The researcher was ready to send the findings with the relevant users after completion of study if they are interested in using the research findings.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter provides data analysis and discussion of results. The chapter is divided into parts guided by the objectives; to determine how agency banking, mobile banking, Automated Teller Machines and debit and credit cards influences financial performance of commercial banks in Nairobi County, Kenya. The analysis used data obtained from the questionnaires. The results were presented in the form of description statistics, percentages and frequencies.

4.2 Response Rate

Out of a total of 169 questionnaires that were administered, 155 were returned. The respondents included 10 managers, 27 supervisors and 118 support staff. This represented 91.72 percent of response rate, which was considered satisfactory to make conclusions for the research. According to Mugenda and Mugenda (1999), a 50% response rate is adequate, 60% good and above 70% rated very well. Basing on this assertion, it implies that the response rate of 91.72% was very good.

Table 4.1: Response rate

Categories	Sample size	Responded
Managers	18	10
Supervisors	31	27
Support staff	120	118
Total	**169**	**155**

4.3 Presentation of Research Analysis and Findings

4.3.1 Demographic Information

This section described the basic characteristics of the respondents included in the study and showed how and why they were appropriate as study samples. The study looked into the education level of the respondents and the length worked at the organization. The responses are presented in Table 4.2.

Table 4.2: Demographic information of the respondents

Demographics		Frequency	Percentage
Gender	Male	107	69
	Female	48	31
Age in years	Below 30	3	2
	Between 30-40	64	41
	Between 41-50	53	34
	Between 51-60	31	20
	61 and above	4	3
Position in the organization	Manager	11	7
	Supervisor	27	17
	Support staff	117	76
Length worked in the bank	Below 1 year	20	13
	Between 1 - 2	11	7
	Between 3- 4 years	15	10
	Between 4- 5	95	61
	6 years and above	14	9
Highest Level of Education	Certificate/Diploma	23	15
	Degree	110	71
	Postgraduate	17	11
	PhD	5	3

From the findings, majority of the respondents 107 (69%) were male while 48 (31%) were female. A large number 64 (41%) were of age bracket between 30-40 years while 53 (34%)

were of ages between 41-50 years. Majority of the respondents 117 (76%) were support staff while 95 (61%) had worked at the bank for between 4-5 years. A large number of the respondents 110 (71%) had a degree as their highest level of education by the time of conducting the study. This means that the study sampled experienced and knowledgeable participants and hence understood the how agency banking, mobile banking, Automated Teller Machines and debit and credit cards influences financial performance of commercial banks in Nairobi County, Kenya.

4.3.2 Influence Agency Banking on Financial Performance at KCB Internet Banking

The study probed the influence of agency banking on financial performance by examining if agency banking positively impacts (increase) commissions fee based income. The research probed if agency banking positively impacts (increase) interest fee based income and if agency had contributed to expansion of the income generating potential of commercial banks. The findings are shown in the table below.

Table 4.5: Effect of agency banking on the bank financial performance

Agency banking and bank financial performance	SD	D	N	A	SA	Mean	SD
Agency banking positively impacts (increase) commissions fee based income	0(0)	0(0)	0(0)	96(61.9)	59(38.1)	4.38	.487
Agency banking positively impacts (increase) interest fee based income	0(0)	0(0)	0(0)	102(65.8)	53(34.2)	4.34	.476
Agency has contributed to expansion of the income generating potential of commercial banks	0(0)	0(0)	0(0)	55(35.5)	100(64.5)	4.65	.480
Our bank agents always ensures security of data and information that is operated on the agency banking platform	0(0)	0(0)	0(0)	82(52.9)	73(47.1)	4.47	.501
Composite mean and standard deviation						4.46	0.486

Four statements were developed to measure the extent to which agency banking influences the bank performance. A large number of the respondents agreed that agency banking

positively impacts (increase) commissions fee based income as indicated by a mean of 4.38 and a standard deviation of .487. Majority agreed that agency banking positively impacts (increase) interest fee based income as revealed by a mean of 4.34 and a standard deviation of .476 while most agreed that agency has contributed to expansion of the income generating potential of commercial banks as shown by a mean of 4.65 and a standard deviation of .480. A large number agreed that their bank agents always ensures security of data and information that is operated on the agency banking platform as indicated by a mean of 4.47 and a standard deviation of .501. The overall mean of 4.46 and a standard deviation of .486 indicate that agency banking had a positive impact towards banks performance.

The findings agreed with Cytonn Investments (2020), findings that indicated that with the growth of mobile and agency banking, penetration in the market has increased and this led to a greater number of transactions as well as offer loan products to the mass market From the research findings of effect of Financial Innovations on financial performance of Savings and Credit Co-operative Societies in Kenya, a case of Kakamega Teachers Co-operative Society Limite the results revealed that financial innovation factors do not account for 100% change in financial performance. The findings show that market share and return on investment are the most important factors in the innovation performance of retail banking services. This situation gives information that the when banks are more successful in the market, they can make investment to the innovation more effectively.

4.3.3 Influence Mobile Banking on Financial Performance

The research probed the influence of mobile banking on financial performance by investigating if internet banking positively impacts (increase) commissions fee based income. It also examined if internet banking had positive impact on interest based income and if the internet service had contributed to expansion of the income generating potential of commercial banks.

Table 4.3: Effect of internet banking on the bank performance

Effect of internet banking on the bank performance	SD	D	N	A	SA	Mean	SD
Internet banking positively impacts (increase) commissions fee based income.	0(0)	0(0)	0(0)	53(34.2)	102(65.8)	4.66	.476
Internet banking has positive impact on interest based income.	0(0)	0(0)	0(0)	38(24.5)	117(75.5)	4.75	.432
Internet service has contributed to expansion of the income generating potential of commercial banks.	0(0)	0(0)	0(0)	51(32.9)	104(67.1)	4.67	.471
Our bank always ensures security of data and information that is operated on the internet banking platform.	0(0)	0(0)	0(0)	50(32.3)	105(67.7)	4.68	.469
Overall mean and standard deviation						4.69	.462

Four statements were developed to measure the extent to which internet banking influences the bank performance. On the statement that internet banking positively impacts (increase) commissions fee based income, a majority agreed as indicated by a mean of 4.66 and a standard deviation of .476 while a large number agreed that internet banking has positive impact on interest based income as revealed by a mean of 4.75 and a standard deviation of .432. A large number agreed that internet service has contributed to expansion of the income generating potential of commercial banks as indicated by a mean of 4.67 and a standard deviation of .471 while most agreed that their bank always ensured security of data and information that is operated on the internet banking platform as shown by a mean of 4.68 and a standard deviation of .469. These findings alludes to importance of internet banking towards bank performance in regards to enhancing service delivery to

customers. The overall mean was found to be 4.69 and a standard deviation of .462 indicating that internet banking has a positive impact towards banks performance.

These statements agreed with scholars Ouma and Ndede, (2020), who revealed that mobile banking lowers transaction costs by removing the need for customers visiting banks branches; mobile banking transactions transferring funds between customer-related accounts was simple and efficient; m-banking transactions increased the customer base; and customers were able to check an account balance or check recent transactions on their mobile phone devices. The study found that agency banking eased the conduct of business, and financial inclusivity was assured by agency banking.

Table 4.4: Effect of mobile banking on the bank financial performance

Effect of mobile banking on the bank financial performance	SD	D	N	A	SA	Mean	SD
Mobile banking positively impacts (increase) commissions fee based income	0(0)	0(0)	0(0)	41(26.5)	114(73.5)	4.74	.443
Mobile banking positively impacts (increase) interest based income	0(0)	0(0)	0(0)	50(32.2)	105(67.7)	4.68	.469
Mobile banking has contributed to expansion of the income generating potential of commercial banks	0(0)	0(0)	0(0)	44(28.4)	111(71.6)	4.72	.452
Mobile phones banking systems always ensures security of data and information that is operated on the mobile banking platform	0(0)	0(0)	0(0)	89(57.4)	66(42.6)	4.43	.496
Overall mean and standard deviation						4.64	0.465

Four statements were developed to measure the extent to which mobile banking influences the bank performance. A large number of respondents agreed that mobile banking positively impacts (increase) commissions fee based income as indicated by a mean of

4.74 and a standard deviation of .443 while majority agreed that mobile banking positively impacts (increase) interest based income as revealed by a mean of 4.68 and a standard deviation of .469. Majority agreed that mobile banking had contributed to expansion of the income generating potential of commercial banks as shown by a mean of 4.72 and a standard deviation of .452 while most agreed that mobile phones banking systems always ensures security of data and information that is operated on the mobile banking platform as indicated by a mean of 4.43 and a standard deviation of .496. The overall mean of 4.64 and a standard deviation of .465 indicate that mobile banking had a positive impact towards banks performance.

This findings agrees with a study by Thio and Yusniar (2021) on the influence of Mobile Banking, Company Size, Credit Risk on Indonesian Banking Financial Performance. Case Study on Conventional Banking Companies Listed on the Indonesia Stock Exchange 2016 - 2020. The results of the study indicated that mobile banking has no significant effect on the financial performance of Indonesian banks. The other independent variables measured using firm size and NPL have a significant effect on the financial performance of Indonesian banks which are measured using ROA, ROE, BOPO.

4.3.4 Influence of Automatic Teller Machine on Financial Performance at KCB Internet Banking

In the study of the influence of ATM on financial performance, the researcher probed if the ATM system compensates for wrongful deductions and if ATM problems are settled to their satisfaction. The study investigated if the ATM contact person is available for redress

of problems and if ATMs are easy to use for transactions. The researcher examined if the ATM provides graphics and adverts of bank services and if the ATM provides education and direction of usage. The researcher also examined if the ATMs had expanded the income generating potential of the bank and if ATMs had influenced positively the increase of interest based income.

Table 4.6: Effect of ATM on the bank financial performance

Effect of ATM on the bank financial performance	SD	D	N	A	SA	Mean	SD
The ATM system compensates for wrongful deductions	0(0)	0(0)	0(0)	67(43.2)	88(56.8)	4.57	.497
ATM problems are settled to my satisfaction	0(0)	0(0)	0(0)	79(51)	76(49)	4.49	.502
ATM contact person is available for redress of problems	0(0)	0(0)	0(0)	81(52.3)	74(47.7)	4.48	.501
ATMs are easy to use for transactions	0(0)	0(0)	0(0)	100(64.5)	55(35.5)	4.35	.480
ATM provides graphics and adverts of bank services	0(0)	0(0)	0(0)	54(34.8)	101(65.2)	4.65	.478
ATM provides education and direction of usage	0(0)	0(0)	0(0)	41(26.5)	114(73.5)	4.74	.443
ATMs have expanded the income generating potential of the bank	0(0)	0(0)	0(0)	49(31.6)	106(68.4)	4.68	.466
ATMs have influenced positively the increase of interest based income	0(0)	0(0)	0(0)	47(30.3)	108(69.7)	4.70	.461
ATMs have had a positive effect of increasing commission fee based income	0(0)	0(0)	0(0)	47(30.3)	108(69.7)	4.70	.461
ATMs have had positive impact on bank income margins	0(0)	0(0)	0(0)	40(25.8)	115(74.2)	4.74	.439
ATM services have attracted more retail depositors for the bank	0(0)	0(0)	0(0)	59(38.1)	96(61.9)	4.62	.487
ATMs influence reduction of operational costs and hence better return on assets for the bank	0(0)	0(0)	0(0)	66(42.6)	89(57.4)	4.57	.496
ATMs have attracted corporate depositors and deposits	0(0)	0(0)	0(0)	49(31.6)	106(68.4)	4.68	.466
Composite mean and standard deviation						4.61	.475

Thirteen statements were developed to measure the extent to which ATMs influence bank performance. Majority agreed that the ATM system compensates for wrongful deductions as indicated by a mean of 4.57 and a standard deviation of .497 while a large number ATM problems are settled to my satisfaction as revealed by a mean of 4.49 and a standard deviation of .502. A large number agreed that ATM contact person is available for redress

of problems as shown by a mean of 4.48 and a standard deviation of .501 while majority agreed that ATMs were easy to use for transactions as indicated by a mean of 4.35 and a standard deviation of .480. Most agreed that ATM provides graphics and adverts of bank services as revealed by a mean of 4.65 and a standard deviation of .478 while majority agreed ATM provides education and direction of usage as shown by a mean of 4.74 and a standard deviation of .443. The overall mean of 4.61 and a standard deviation of .475 indicate that Automated Teller Machines had a positive impact towards banks performance.

A large number agreed that ATMs had expanded the income generating potential of the bank as indicated by a mean of 4.68 and a standard deviation of .466 while majority agreed that ATMs had influenced positively the increase of interest based income as revealed by a mean of 4.70 and a standard deviation of .461. Most agreed that ATMs have had a positive effect of increasing commission fee based income as shown by a mean of 4.70 and a standard deviation of .461 while a large number agreed that ATMs have had positive impact on bank income margins as indicated by a mean of 4.74 and a standard deviation of .439. Majority agreed that ATM services have attracted more retail depositors for the bank as revealed by a mean of 4.62 and a standard deviation of .487 while a large number agreed that ATMs influence reduction of operational costs and hence better return on assets for the bank as indicated by a mean of 4.57 and a standard deviation of .496. Majority agreed that ATMs have attracted corporate depositors and deposits as shown by a mean of 4.68 and a standard deviation of .466. The overall mean of 4.61 and a standard deviation of .475 indicate that Automated Teller Machines had a positive impact towards banks performance.

The findings agreed with those in a study by Jegede (2014) that revealed that the main reason for using the ATM was accessibility. The user group believed that the ATM improves quality of service, reduces cost, presents no risks to customers, and is fast and easy to use. The non-users saw no advantage to using the ATM and preferred dealing with humans. The user group was generally more educated. It is apparent that financial institutions must develop different strategies for user and non-user groups. Non-users should be educated on how to operate the machines. Human tellers, while offering personalized service, could demonstrate the functions of the ATM. In addition, the machine could be placed inside the bank near the human teller in order to entice usage. However, while these new technologies may offer significant advantages to the consumers, many are unwilling to adopt them. A large number of consumers are resistant to new ways of doing their banking, especially when the new way represents loss of personal contact.

4.3.5 Influence of Debit and Credit Cards on Financial Performance at KCB Internet Banking

This study examined the influence of debit and credit cards on financial performance by investigating if debit & credit cards had a positive effect of increasing commission fee based income. It examined that effect of debit and credit cards have influenced positively the increase of interest based income and if debit & credit cards had expanded the income generating potential of the bank. To determined if debit & credit cards influence reduction of operational costs and hence better return on assets for the bank Debit & credit cards investments have payback period of less than 3 years and hence good return on assets.

Table 4.7: Effect of debit and credit cards on the bank financial performance

Effect of debit and credit cards on the bank financial performance	SD	D	N	A	SA	Mean	SD
Debit & credit cards have had a positive effect of increasing commission fee based income	0(0)	0(0)	0(0)	53(34.2)	102(65.8)	4.66	.476
Debit & credit cards have influenced positively the increase of interest based income	0(0)	0(0)	0(0)	47(30.3)	108(69.7)	4.70	.461
Debit & credit cards have expanded the income generating potential of the bank	0(0)	0(0)	0(0)	82(52.9)	73(47.1)	4.47	.501
Debit & credit cards influence reduction of operational costs and hence better return on assets for the bank	0(0)	0(0)	0(0)	87(56.1)	68(43.9)	4.44	.498
Debit & credit cards investments have payback period of less than 3 years and hence good return on assets	0(0)	0(0)	0(0)	89(57.4)	66(42.6)	4.43	.496
Incomes from debit & credit cards have had positive impact on bank income margins	0(0)	0(0)	0(0)	50(32.3)	105(67.7)	4.68	.469
Income from debit and credit cards has high margin hence contributing positively to bank annual profitability	0(0)	0(0)	0(0)	80(51.6)	75(48.3)	4.48	.501
Debit and credit cards have low maintenance costs leading to high levels of profitability over their economic lifetime	0(0)	0(0)	0(0)	71(45.8)	84(54.2)	4.54	.500
Investment in debit and credit cards is mostly motivated by profits to the bank	0(0)	0(0)	0(0)	63(40.6)	92(59.4)	4.59	.493
Debit & credit cards services have attracted more retail depositors for the bank	0(0)	0(0)	0(0)	46(29.7)	109(70.3)	4.70	.458
Debit & credit cards services have enabled customers to access their deposits with ease for withdrawal	0(0)	0(0)	0(0)	59(38.1)	96(61.9)	4.62	.487
Debit & credit cards services have attracted corporate depositors and deposits	0(0)	0(0)	0(0)	59(38.1)	96(61.9)	4.62	.487
Overall mean and standard deviation						4.58	.486

Twelve statements were developed to measure the extent to which debit and credit cards influence bank performance. Majority agreed that debit & credit cards have had a positive effect of increasing commission fee based income as shown by a mean of 4.66 and a standard deviation of .476 while a large number agreed that debit & credit cards have influenced positively the increase of interest based income as indicated by a mean of 4.70

and a standard deviation of .461. Most agreed that debit & credit cards have expanded the income generating potential of the bank as revealed by a mean of 4.47 and a standard deviation of .501. Debit & credit cards was found to influence reduction of operational costs and hence better return on assets for the bank as indicated by a mean of 4.44 and a standard deviation of .498. Majority agreed that debit & credit cards investments have payback period of less than 3 years and hence good return on assets as shown by a mean of 4.43 and a standard deviation of .496 while a large number agreed that incomes from debit & credit cards have had positive impact on bank income margins as revealed by a mean of 4.68 and a standard deviation of .469. The overall mean of 4.58 and a standard deviation of .486 indicate that debit and credit cards had a positive impact towards banks performance.

A large number agreed that income from debit and credit cards has high margin hence contributing positively to bank annual profitability as indicated by a mean of 4.48 and a standard deviation of .501 while majority agreed that debit and credit cards have low maintenance costs leading to high levels of profitability over their economic lifetime as indicated by a mean of 4.54 and a standard deviation of .500. Majority agreed that investment in debit and credit cards is mostly motivated by profits to the bank as shown by a mean of 4.59 and a standard deviation of .493 while most agreed that debit & credit cards services have attracted more retail depositors for the bank as revealed by a mean of 4.70 and a standard deviation of .458. Majority agreed that debit & credit cards services have enabled customers to access their deposits with ease for withdrawal as indicated by a mean of 4.62 and a standard deviation of .487 while majority agreed that debit & credit cards services have attracted corporate depositors and deposits as shown by a mean of

4.62 and a standard deviation of .487. The overall mean of 4.58 and a standard deviation of .486 indicate that debit and credit cards had a positive impact towards banks performance.

This findings agree with Thio and Yusniar (2021) study that indicated that the use of the credit cards in the society has affected not only traditional consumers, but also vulnerable groups, such as college students, senior citizens, and disabled citizens. College students have grown up in the age of credit, becoming independent consumers earlier in life, and constantly exposed to new products and services available through credit cards. Along with technology and the expansion of the internet, they become an appealing demographic group for credit card companies and financial institutions for a variety of reasons. Solicitation on college campuses has caused concern among college officials, consumer advocacy groups and legislators.

4.3.6 Financial Performance

The following statements are related to the influence financial performance. Financial performance was measured by examining the Return of Assets and Return on Equity of the the banks.

Table 4.8: Financial performance

	2016	**2017**	**2018**	**2019**	**2020**
Return on Assets	3.42	3.2	3.8	3.7	2.1
Return on Equity	22.2	19.5	24.0	14.41	14.4

From the findings, the results in ROA and ROE were found to have changed over the five years from 2016 to 2020. The year 2020 realized the lowest Return on Assets at 2.2 while in the year 2018, there was the highest Return of Equity of 24.0.

CHAPTER FIVE: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides data analysis and discussion of results. The chapter is divided into sessions guided by the objectives; to determine how agency banking, mobile banking, Automated Teller Machines and debit and credit cards influence financial performance of commercial banks in Nairobi County, Kenya. The analysis used data obtained from the questionnaires. The results were presented in the form of description statistics, percentages and frequencies.

5.2 Discussions

The following part presents the discussion that has been guided by the four objectives of the study;

5.2.1 Agency Banking and Financial Performance

The findings indicated that a large number of the respondents agreed that agency banking positively impacts (increase) commissions fee based income as indicated by a mean of 4.38 and a standard deviation of .487. Majority agreed that agency banking positively impacts (increase) interest fee based income as revealed by a mean of 4.34 and a standard deviation of .476 while most agreed that agency has contributed to expansion of the income generating potential of commercial banks as shown by a mean of 4.65 and a standard deviation of .480. A large number agreed that their bank agents always ensures security of data and information that is operated on the agency banking platform as indicated by a mean of 4.47 and a standard deviation of .501. The overall mean of 4.46 and a standard

deviation of .486 indicate that agency banking had a positive impact towards banks performance.

The findings agreed with Cytonn Investments (2020), findings that indicated that with the growth of mobile and agency banking, penetration in the market has increased and this led to a greater number of transactions as well as offer loan products to the mass market From the research findings of effect of Financial Innovations on financial performance of Savings and Credit Co-operative Societies in Kenya, a case of Kakamega Teachers Co-operative Society Limite the results revealed that financial innovation factors do not account for 100% change in financial performance. The findings show that market share and return on investment are the most important factors in the innovation performance of retail banking services. This situation gives information that the when banks are more successful in the market, they can make investment to the innovation more effectively.

5.2.2 Mobile Banking and Financial Performance

From the findings, majority agreed that internet banking positively impacts (increase) commissions fee based income as indicated by a mean of 4.66 and a standard deviation of .476 while a large number agreed that internet banking has positive impact on interest based income as revealed by a mean of 4.75 and a standard deviation of .432. A large number agreed that internet service has contributed to expansion of the income generating potential of commercial banks as indicated by a mean of 4.67 and a standard deviation of .471 while most agreed that their bank always ensured security of data and information that is operated on the internet banking platform as shown by a mean of 4.68 and a standard deviation of .469.

A large number of respondents agreed that mobile banking positively impacts (increase) commissions fee based income as indicated by a mean of 4.74 and a standard deviation of .443 while majority agreed that mobile banking positively impacts (increase) interest based income as revealed by a mean of 4.68 and a standard deviation of .469. Majority agreed that mobile banking had contributed to expansion of the income generating potential of commercial banks as shown by a mean of 4.72 and a standard deviation of .452 while most agreed that mobile phones banking systems always ensures security of data and information that is operated on the mobile banking platform as indicated by a mean of 4.43 and a standard deviation of .496. The overall mean was found to be 4.69 and a standard deviation of .462 indicating that internet banking has a positive impact towards banks performance.

These statements agreed with scholars Ouma and Ndede, (2020), who revealed that mobile banking lowers transaction costs by removing the need for customers visiting banks branches; mobile banking transactions transferring funds between customer-related accounts was simple and efficient; m-banking transactions increased the customer base; and customers were able to check an account balance or check recent transactions on their mobile phone devices. The study found that agency banking eased the conduct of business, and financial inclusivity was assured by agency banking.

5.2.3 Automated Teller Machines and Financial Performance

The findings revealed that majority agreed that the ATM system compensates for wrongful deductions as indicated by a mean of 4.57 and a standard deviation of .497 while a large number ATM problems are settled to my satisfaction as revealed by a mean of 4.49

and a standard deviation of .502. A large number agreed that ATM contact person is available for redress of problems as shown by a mean of 4.48 and a standard deviation of .501 while majority agreed that ATMs were easy to use for transactions as indicated by a mean of 4.35 and a standard deviation of .480. Most agreed that ATM provides graphics and adverts of bank services as revealed by a mean of 4.65 and a standard deviation of .478 while majority agreed ATM provides education and direction of usage as shown by a mean of 4.74 and a standard deviation of .443.

A large number agreed that ATMs had expanded the income generating potential of the bank as indicated by a mean of 4.68 and a standard deviation of .466 while majority agreed that ATMs had influenced positively the increase of interest based income as revealed by a mean of 4.70 and a standard deviation of .461. Most agreed that ATMs have had a positive effect of increasing commission fee based income as shown by a mean of 4.70 and a standard deviation of .461 while a large number agreed that ATMs have had positive impact on bank income margins as indicated by a mean of 4.74 and a standard deviation of .439. Majority agreed that ATM services have attracted more retail depositors for the bank as revealed by a mean of 4.62 and a standard deviation of .487 while a large number agreed that ATMs influence reduction of operational costs and hence better return on assets for the bank as indicated by a mean of 4.57 and a standard deviation of .496. Majority agreed that ATMs have attracted corporate depositors and deposits as shown by a mean of 4.68 and a standard deviation of .466. The overall mean of 4.61 and a standard deviation of .475 indicate that Automated Teller Machines had a positive impact towards banks performance.

The findings agreed with those in a study by Jegede (2014) that revealed that the main reason for using the ATM was accessibility. The user group believed that the ATM improves quality of service, reduces cost, presents no risks to customers, and is fast and easy to use. The non-users saw no advantage to using the ATM and preferred dealing with humans. The user group was generally more educated. It is apparent that financial institutions must develop different strategies for user and non-user groups. Non-users should be educated on how to operate the machines. Human tellers, while offering personalized service, could demonstrate the functions of the ATM. In addition, the machine could be placed inside the bank near the human teller in order to entice usage. However, while these new technologies may offer significant advantages to the consumers, many are unwilling to adopt them. A large number of consumers are resistant to new ways of doing their banking, especially when the new way represents loss of personal contact.

5.2.4 Debit and Credit Cards and Financial Performance

Majority agreed that debit & credit cards have had a positive effect of increasing commission fee based income as shown by a mean of 4.66 and a standard deviation of .476 while a large number agreed that debit & credit cards have influenced positively the increase of interest based income as indicated by a mean of 4.70 and a standard deviation of .461. Most agreed that debit & credit cards have expanded the income generating potential of the bank as revealed by a mean of 4.47 and a standard deviation of .501. Debit & credit cards was found to influence reduction of operational costs and hence better return on assets for the bank as indicated by a mean of 4.44 and a standard deviation of .498. Majority agreed that debit & credit cards investments have payback period of less

than 3 years and hence good return on assets as shown by a mean of 4.43 and a standard deviation of .496 while a large number agreed that incomes from debit & credit cards have had positive impact on bank income margins as revealed by a mean of 4.68 and a standard deviation of .469. The overall mean of 4.58 and a standard deviation of .486 indicate that debit and credit cards had a positive impact towards banks performance.

This findings agree with Thio and Yusniar (2021) study that indicated that the use of the credit cards in the society has affected not only traditional consumers, but also vulnerable groups, such as college students, senior citizens, and disabled citizens. College students have grown up in the age of credit, becoming independent consumers earlier in life, and constantly exposed to new products and services available through credit cards. Along with technology and the expansion of the internet, they become an appealing demographic group for credit card companies and financial institutions for a variety of reasons. Solicitation on college campuses has caused concern among college officials, consumer advocacy groups and legislators.

5.3 Summary of Main Findings

The findings leads to the following conclusion; that are done according to the study objectives. The findings found out that agency banking, mobile banking, Automated Teller Machines and debit and credit cards influences financial performance of commercial banks in Nairobi County, Kenya. It was established that they enhance the transactions and customer services that positively influences financial performance of organizations.

5.4 Conclusions

From the findings, the study made the following conclusions;

5.4.1 Agency Banking and Financial Performance

It can be concluded from the findings that agency banking positively impacts (increase) commissions fee based income and positively impacts (increase) interest fee based income. Agency has contributed to expansion of the income generating of commercial banks. Bank agents always ensures security of data and information that is operated on the agency banking platform.

5.4.2 Mobile Banking and Financial Performance

From the findings, it can be concluded that internet banking positively impacts (increase) commissions fee based income and positive impact on interest based income. Internet service has contributed to expansion of the income generating potential of commercial banks. KCB bank always ensured security of data and information that is operated on the internet banking platform. Mobile banking positively impacts (increase) commissions fee based income and it positively impacts (increase) interest based income. Mobile banking had contributed to expansion of the income generating potential of commercial banks.

5.4.3 Automated Teller Machines and Financial Performance

ATM system compensates for wrongful deductions and the ATM problems are settled to my satisfaction. ATM contact person is available for redress of problems and ATMs were easy to use for transactions. ATM provides graphics and adverts of bank services and provides education and direction of usage. ATMs had expanded the income generating potential of the bank and had influenced positively the increase of interest based income. ATMs have had a positive effect of increasing commission fee based income and had positive impact on bank income margins.

5.4.4 Debit and Credit Cards and Financial Performance

Debit & credit cards have had a positive effect of increasing commission fee based income and have influenced positively the increase of interest based income. Debit & credit cards have expanded the income generating potential of the bank. Debit & credit cards was found to influence reduction of operational costs and hence better return on assets for the bank. Debit & credit cards investments have payback period of less than 3 years and hence good return on assets. Incomes from debit & credit cards have had positive impact on bank income margins.

5.5 Recommendations

The study make the following recommendations;

i. The study findings leads to recommending that agency banking should be enhanced since it positively influences financial performance of commercial banks. This can be done by increasing the number of agency banking points across the country.

ii. The management of the bank should also enhance mobile banking since it was found to positively influence financial performance of commercial banks. This can be done by developing customer friendly mobile applications to enhance transactions by the clients.

iii. Automated Teller Machines was found to positively influence financial performance of commercial banks. Therefore the bank management should make sure they increase the ATMs and enhance their innovation that touches on transactions through ATMs.

iv. The bank should also enhance the debit and credit cards since it positively influence financial performance of commercial banks. This can be done by liasing with the cutomers to get their suggestions on how to improve the debit and credit cards.

5.6 Areas of Further Research

This research proposes further research to be done in the following areas:

Further study ought to be conducted on effectiveness of banking innovations on financial performance of other commercial banks since this was a case of KCB bank. This may provide more understanding on how the different banking innovations affect financial performance of the banks.

This study only covered four banking innovations; agency banking, mobile banking, Automated Teller Machines and debit and credit cards in examining the influence on financial performance of commercial banks in, Kenya. Therefore, there should be a study done on the influence of other banking innovations that affect financial performance in commercial banks. This could be a significant input for feedback for banks as vital participants.

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APPENDICES

APPENDIX I: REQUEST LETTER

Dear,

Prof/DR./Mr./Mrs/Ms……

My name is Hillary Magani Mmata, a student at the Africa Nazarene University pursuing an MBA Degree course. In pursuit of my degree requirement, my project research work is banking innovations and financial performance of Commercial banks in Kenya I have chosen KCB for my research work. I am a self-sponsored student in this survey which I am carrying out through Research Assistants and Data Enumerators. I would like to assure you that the information you provide in this research will be used for research purposes only and will be treated strictly anonymously and confidentially.

Your answers will only be accessed by members of the research team directly involved in the study. Neither your name nor the name of the department you work or your position in the County will be mentioned in any document related to this study. Any questions regarding the study can be directed to Hillary Magani Mmata of 0727860886.

Thanking you as you take your time to fill in the questionnaire.

Hillary Magani

APPENDIX II: QUESTIONNAIRE

My name is Hillary Magani Mmata and I am a masters student at Africa Nazarene University pursuing a MBA Degree course, and undertaking a research entitled "Influence of banking innovations on financial performance of commercial banks in Nairobi County Kenya: a case of KCB". It is in this regard that I humbly request for your participation in filing this questionnaire. Thank you in advance.

Instructions

This questionnaire consists of two parts; kindly answer all the questions by ticking in the appropriate box or filling in the spaces provided.

Part A: Demographic Information

1. Gender of respondent:

   Male: [ ] Female: [ ]

2. Age:

   Below 30 years [ ] Between 30-40 years [ ] Between 41-50 years [ ]

   Between 51-60 years [ ] 61 years and above [ ]

3. What is your position in the organization?

   Manager [ ] Supervisor [ ] Support staff [ ]

4. How long have you worked in the bank?

   Below 1 year [ ] Between 1 - 2 [ ] Between 3- 4 years [ ]

   Between 4- 5 [ ] 6 years and above [ ]

5. Highest Level of Education

   Certificate/Diploma [ ] Degree [ ] Postgraduate [ ] PhD [ ]

   Others (specify) _____

Part B: Influence Mobile banking on Financial Performance at KCB Internet Banking

6. The following statements are related to the effect of internet banking on the bank performance. Kindly tick as appropriate on your opinion on each statement. **Key: 1=Strongly Disagree, 2= Disagree; 3=Neutral; 4= Agree; 5= Strongly Agree**

Statement	**5**	**4**	**3**	**2**	**1**
Internet banking positively impacts (increase)commissions fee based income					
Internet banking has positive impact on interest based income					
Internet service has contributed to expansion of the income generating potential of commercial banks					
Our bank always ensures security of data and information that is operated on the internet banking platform					

7. The following statements are related to the effect of mobile banking on the bank financial performance. Kindly tick as appropriate on your opinion on each statement. **Key: 1=Strongly Disagree, 2= Disagree; 3=Neutral; 4= Agree; 5= Strongly Agree**

Statement	**5**	**4**	**3**	**2**	**1**
Mobile banking positively impacts (increase) commissions fee based income					
Mobile banking positively impacts (increase) interest based income					

Mobile banking has contributed to expansion of the income generating potential of commercial banks					
Mobile phones banking systems always ensures security of data and information that is operated on the mobile banking platform					

Part C: Influence agency banking on Financial Performance at KCB Internet Banking

The following statements are related to the effect of agency banking on the bank financial performance. Kindly tick as appropriate on your opinion on each statement. **Key: 1=Strongly Disagree, 2= Disagree; 3=Neutral; 4= Agree; 5= Strongly Agree**

Statement	**5**	**4**	**3**	**2**	**1**
Agency banking positively impacts (increase)commissions fee based income					
Agency banking positively impacts (increase) interest fee based income					
Agency has contributed to expansion of the income generating potential of commercial banks					
Our bank agents always ensures security of data and information that is operated on the agency banking platform					

Part D: Influence of Automatic Teller Machine on Financial Performance at KCB Internet Banking

The following statements are related to the effect of ATM on the bank financial performance. Kindly tick as appropriate on your opinion on each statement. **Key: 1=Strongly Disagree, 2= Disagree; 3=Neutral; 4= Agree; 5= Strongly Agree**

Statement	**5**	**4**	**3**	**2**	**1**
The ATM system compensates for wrongful deductions					
ATM problems are settled to my satisfaction					
ATM contact person is available for redress of problems					
ATMs are easy to use for transactions					
ATM provides graphics and adverts of bank services					
ATM provides education and direction of usage					
ATMs have expanded the income generating potential of the bank					
ATMs have influenced positively the increase of interest based income					
ATMs have had a positive effect of increasing commission fee based income					
ATMs have had positive impact on bank income margins					

ATM services have attracted more retail depositors for the bank					
ATMs influence reduction of operational costs and hence better return on assets for the bank					
ATMs have attracted corporate depositors and deposits					

Part E: Influence of Debit and credit cards on Financial Performance at KCB Internet Banking

The following statements are related to the effect of debit and credit cards on the bank financial performance. Kindly tick as appropriate on your opinion on each statement. **Key: 1=Strongly Disagree, 2= Disagree; 3=Neutral; 4= Agree; 5= Strongly Agree**

Statement	**5**	**4**	**3**	**2**	**1**
Debit & credit cards have had a positive effect of increasing commission fee based income					
Debit & credit cards have influenced positively the increase of interest based income					
Debit & credit cards have expanded the income generating potential of the bank					
Debit & credit cards influence reduction of operational costs and hence better return on assets for the bank					
Debit & credit cards investments have payback period of less than 3 years and hence good return on assets					

Incomes from debit & credit cards have had positive impact on bank income margins					
Income from debit and credit cards has high margin hence contributing positively to bank annual profitability					
Debit and credit cards have low maintenance costs leading to high levels of profitability over their economic lifetime					
Investment in debit and credit cards is mostly motivated by profits to the bank					
Debit & credit cards services have attracted more retail depositors for the bank					
Debit & credit cards services have enabled customers to access their deposits with ease for withdrawal					
Debit & credit cards services have attracted corporate depositors and deposits					

Part F: Financial Performance

The following statements are related to the influence financial performance. Kindly fill appropriately

	2016	2017	2018	2019	2020
Return on assets					
Return on equity					

APPENDIX V: PERMIT FOR DATA COLLECTION

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 898875

Date of Issue: 15/November/2021

RESEARCH LICENSE

This is to Certify that Mr.. HILLARY MAGANI MMATA of Africa Nazarene University, has been licensed to conduct research in Nairobi on the topic: INFLUENCE OF BANKING INNOVATIONS ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN NAIROBI COUNTY: A CASE OF KCB BANK for the period ending : 15/November/2022.

License No: NACOSTI/P/21/14305

898875

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

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APPENDIX VI: LETTER FROM THE UNIVERSITY

10th, November, 2021

E-mail: researchwriting.mba.anu@gmail.com

Tel. 0202711213

Our Ref: 16M03EMBA030

The Director.
National Commission for Science,
Technology and Innovation (NACOSTI),
P. O. Box 30623, 00100
Nairobi. Kenya

Dear Sir/Madam:

RE: RESEARCH AUTHORIZATION FOR: HILLARY MAGANI M'MATA

Mr. Hillary is a postgraduate student of Africa Nazarene University in the Master of Business Administration (MBA) program.
In order to complete his program, Mr. Hillary is conducting a research entitled:
"Influence of Banking Innovations on Financial Performance of Commercial Banks in Nairobi County: A Case of KCB Bank "
Any assistance offered to him will be highly appreciated.

Yours Faithfully,

DR. Kimani Gichuhi,

MBA, Coordinator,

School of Business,

Africa Nazarene University.

APPENDIX VII: LETTER FROM KENYA COMMERCIAL BANK

KCB

KCB Group Plc
Kencom House
P.O. Box 48400 – 00100
Nairobi, Kenya
Tel: +254 20 3270000 / 2851000 / 28520000
Mobile: +254 711012 000 / 734 108200
SMS: 22522
Email: contactus@kcbgroup.com

Tuesday March 21, 2022

To whom it may concern;

Re: DATA FOR HILLARY MAGANI M'MATA

The mentioned name collected data from our Nairobi branches on "INFLUENCE OF BANKING INNOVATIONS ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN NAIROBI COUNTY: A CASE OF KENYA COMMERCIAL BANK". This was done in 4 days from 21st to 25th February, 2022. The bank gives permission for the information to be used for academic purpose only.

Yours Sincerely

PAUL, B. MUREITHI

Head of Operations & Logistics,

APPENDIX VIII: MAP OF KENYA COMMERCIAL BANKS BRANCHES IN NAIROBI COUNTY