BRANCHLESS BANKING SERVICES AND FINANCIAL STABILITY OF COMMERCIAL BANKS IN KENYA

MOMANYI MORAA LUCY
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DECLARATION

This project is my unique conception and has never been submitted for an award at any institution.

Signature…….

Date…….

Momanyi Moraa Lucy

Registration number: D53/OL/KSU/21607/2020

Department of Accounting and Finance.

Declaration by Supervisor

I confirm that the work in this research project was done under my supervision

Signature..... Date.....

Dr. John Mungai

Department of Accounting and Finance

School of Business, Economics and Tourism

Kenyatta University.

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ABBREVIATIONS AND ACRONYMS

ARDL	Auto Regressive Distribution Lag
ATMs	Automated Teller Machines
ATMT	Automated Teller Machines Transactions
BB	Branchless Banking
BCBS	Basel Committee of Banking Sector
CAMEL	Capital, Asset, Management, Earnings and Liquidity
CBK	Central Bank of Kenya
CCT	Call Centre Transactions
CEECs	Central and Eastern European Countries
GMM	Generalized Methods of Moment
MOBT	Mobile Banking Transactions
NSE	Nairobi securities exchange
OLS	Ordinary Least Squares
PIN	Personal Identification Number
POST	Point of Sale Transactions
ROA	Return on Asset
ROE	Return on Equity

OPERATIONAL DEFINITION OF TERMS

Agency banking: It is the term used to describe the activities that an agent performs on behalf of an organization as allowed by the policies. In relation to this study agency banking refers to banking services carried out by an authorized third party on behalf of commercial bank. Value of transactions through agency banking were used to measure agency banking services.

Automated teller machines: It's an electronic device that allows account holders to deposit or withdraw cash. To start and finish a transaction with the machine, use a smart card. In the context of this study, an ATM is an e-banking outlet that enables users to carry out simple transactions using a card and a PIN that is given to them by a financial institution, all without the assistance of a teller or branch representative. This indicator was measured by annual amount of revenue generated through utilization of ATM services.

Branchless banking: This is the provision of financial services using nonbank retail agents and information and communication technology outside of traditional bank branches. In relation to this study branchless banking refers to financial services that are carried outside the banking hall which was measured using the value of transactions, through use of branchless banking services.

Financial stability: It is the capacity to control and absorb operational and financial risk, as well as to facilitate and improve economic processes. In relation to this study financial stability refers to the potential of financial

institutions to fulfil their short-term liabilities, generate profit over time and meet unexpected expenses. It was measured by Credit Risk.

Mobile Banking: Refers to the link that exists between a personal or commercial bank account and a mobile phone. Regarding this study, mobile banking refers to financial services including bill payment, account transfers, deposits, withdrawals, and balance inquiries that are performed via mobile communications devices. It was measured by annual amount of revenue generated through use of mobile banking services.

Online banking: Refers to the method by which a client conducts electronic banking transactions in lieu of going to a banking hall. Customers can access their bank accounts and carry out financial transactions via the internet. It is also referred to as web banking or internet banking. It requires a computer or other electronic devices such as a smart phone, an internet connection, bank credit and debit card. This indicator was measured by annual value of transactions through online banking services.

ABSTRACT

Globally commercial banks continue to be the key conduit of financial intermediation. They do this by mobilizing savings and funding government economic activities. Financial stability is a primary objective for banking institutions, enabling them to function efficiently as intermediaries within the financial system. Technological advancements, creative financial products, shifting consumer needs, and the utilization of different distribution channels are all having an impact on the banking sector. Thus, the aim of the research was to investigate how Kenyan commercial banks' financial stability is impacted by branchless banking services. This research sought to investigate how commercial banks' financial health is impacted by ATM, agency, mobile, and online banking services. The research made use of the theories of financial intermediation, agency, diffusion of innovation, and stakeholders. Using an explanatory research approach, the study concentrated on all 38 commercial banks as of December 31, 2023. From commercial banks, secondary data spanning the years 2016 to 2022 was gathered. Data collecting sheets were utilized to gather secondary data. The gathered data were coded, cleaned, tabulated, and shown in tables prior to analysis. Statistics, both descriptive and inferential, were utilized to draw conclusions. Descriptive statistics comprised the mean and standard deviation and inferential statistics included multiple regression analysis and Pearson's Product Moment Correlation. STATA 14 software was used for the analysis in this study. Tables were used to display the diagnostic test, descriptive statistics, and inferential statistics. The study identified a favorable association between agency, mobile, and online banking services and financial stability. Multiple linear regression analysis also revealed a positive and significant relationship between agency, mobile, and online banking services and financial stability. The research hence came to a conclusion that ATMs, agency, mobile, and online banking services have a positive and significant effect on financial stability of commercial banks. The study made recommendations that commercial banks should implement measures that will lead to increased use of branchless services such as ATM banking, agency banking, mobile banking and online banking so as to improve their financial stability. The research also recommended that policymakers should make policies that aim at increasing the use of branchless banking services.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Commercial banks are the most prominent intermediators of financial system throughout the world. Financial system is essential for economic progress and it enhances people`s living standard. It encourages savings and investment by creating a link between savers and investors (Suresh, 2018). It is imperative to note that financial stability is predominant for economic growth world-wide since most transactions in real economy are made through financial system. The dynamism of the banking industry and branchless banking services have propelled the financial sector's expansion (Chipeta & Muthinja, 2018). Despite the improved performance, the banking sector in Kenya still has some challenges reflected in annual supervision report where by five banks violated the requirement of capital adequacy and one bank failed to meet liquidity ratio of twenty percent (Central Bank of Kenya Report, 2021).

Both developed countries and developing countries have been hit by the deteriorating economic outlook, heightened by uncertainty and tighter global financial conditions which have led to reduction in investments. Global economic growth is diminishing and borrowing cost has gone up thus increasing the risk of financial stability (Bank of England, 2022). Following the global economic impact of the Covid-19 outbreak, banks worldwide have seen a notable decline in loan growth and a rise in non-performing assets. Low interest rates combined with a steady rise in non-performing loans created a banking risk bubble that threatened the soundness of banks' finances (Tran *et al.*, 2022).

In the contemporary world and worldwide context, the utilization of e-banking strategy is considered crucial for banks to effectively adapt and survive in a rapidly evolving

business. This resource serves to maintain competition and further enhance sales, as well as acquire and retain a significant portion of the market. Branchless banking services have been recognized as a transformative force for commercial banks on a global scale. This is due to significant shifts in customer attitudes towards technology and its widespread integration into daily life. According to a survey conducted by Fanera limited, a total of five million dollars was transferred through online money deposits in the Middle East. It is anticipated that 30% of all transactions involving deposit taking and loan lending firms were conducted via online channels in 2018. According to a survey conducted in 2019, 62% of respondents indicated that they prefer using the internet as their method of depositing money (Kavila & Kilika, 2023).

An examination of patterns in Brazil, Peru, and Colombia clarifies why agent banking adoption exhibited sluggishness throughout the initial two years (2016 and 2017) eventually gaining momentum in the third or fourth year. Consequently, these banks' financial growth declined in the aforementioned years (Núñez & Oneto, 2019). Data collected in Mexico's first year of agent banking, however, suggests that the nation's number of banking agents is anticipated to climb quickly in the initiative's second year, paralleling growth observed in Peru's and Colombia's fourth and sixth years. The financial stability of Mexico had been significantly impacted by the new rules that permitted the opening of savings accounts and allowed the operation of various types of financial organizations through bank agents. These policies also positioned Mexico as a leader in agent banking in Latin America (Reynoso & del Río, 2023).

Nigerian banks were performing worse than they used to (Obamuyi, 2018). Between 2012 and 2017, the banks' total revenue in Nigeria decreased by 13%. worsening investments in branchless banking services were linked to the worsening performance. The study also asserted that it might not be possible for majority of the banks to fund

innovation initiatives. The global economic turmoil and the belief that the majority of the metrics used to gauge banks' accomplishments had been made public may have been the catalysts for this (Agboola *et al.,* 2019).

In Kenya, the financial sector has been struggling to raise capital, loans, profit margins and products offering in the recent years (Jairus, 2018). Escalating national and global competitiveness, economic meltdown, changing rapidly market dynamics, and unpredictable money markets have all appended to pressuring institutions to come to grips with pragmatic reactions to withstand the competition and achieve success. Banks' position in a financial system is vitally important since they execute monetary policies and provide means to facilitate domestic and foreign trade pay-outs for commodities. Notwithstanding the stabilization and fortitude of the banks in 2015, Dubai Bank Ltd flew into bankruptcy attributable to solvency risk and inadequate provisioning for non-performing loans in the second quarter of 2015. Charter House Bank was also positioned under legally enforceable control because of economic risk (CBK 2017).

In spite of the various difficulties, commercial banks in the country have been implementing the e-money depositing method alongside creative advancements in the technical sphere. Deposit taking and loan lending firms utilize a range of distribution channels, including physical branches of economic groups, mobile branches for deposit taking and loan lending, ATMs, online money deposits, and mobile money deposits, to offer their depositing services (Nduta, & Wanjira, 2019). Each of these distribution channels facilitates customers and bank clients with a range of possibilities for transferring finances as and when required. Official records indicate that mobile banking was employed in the country, with a staggering number of over 10 million individuals using mobile cash services in 2011. A diminishing shift back on investments

on bank branches mainly due to the push toward virtual customers and the high-fee infrastructure of physical money depositing locations (PWC, 2018).

1.1.1 Branchless Banking Services

Branchless banking services also known as digital banking are becoming more popular as people use technology to access financial services. Fintech enable banks and other businesses to provide financial services through channels other than traditional bank locations, like automated teller machines (ATMs), retail agents, mobile devices, and the internet. This can significantly increase the reach of financial services to underbanked communities (Harelimana, 2018).

According to Onge'era (2021) branchless banking refers to the provision of financial services without relying on traditional, physical bank branches. Instead, it leverages alternative delivery channels such as mobile phones, automated teller machines (ATMs), point-of-sale (POS) devices, internet platforms, and agent networks to extend financial access—particularly to underserved or remote populations. This model enhances financial inclusion by reducing operational costs and geographical barriers, enabling banks and other financial institutions to reach a broader customer base efficiently. Branchless banking often integrates digital technology with strategic partnerships (e.g., with mobile network operators or retail agents) to facilitate services like deposits, withdrawals, fund transfers, bill payments, and microcredit.

Agency banking services are intended to facilitate proximity to financial services customers who are unbanked or underbanked due to unavailability of traditional bank branches. By partnering with local agents' banks can provide more convenient and accessible way for customers to access banking services. According to a study by Brotoboh and Ekwevugbe (2022), the number of deposits and withdrawals had a

beneficial influence on the financial success of financial institutions in Nigeria, while the volume of loans disbursed and the number of agents had a negative influence on ROE.

Mobile banking services enable customers to utilize mobile devices for accessing and managing their bank accounts and executing financial transactions. According to Onge'era (2021), the financial health of the four Kenyan financial institutions was impacted by mobile banking. Furthermore, she noted that mobile banking was more reliable to customers and affordable to most people, which enabled banks to reach out to the unbanked people, thus increasing the number of transactions leading to revenue generation and improved profitability.

Online banking services enable consumers to conveniently access their bank accounts and carry out financial transactions, such as checking account balances, obtaining bank statements, moving funds, paying bills, and depositing checks or cash online via the internet or a web portal. Mateka *et al*. (2017) found that internet banking positively impacts bank income, operating expenses, and consumer deposits. The research further analyzed the impact of online banking on the financial success of Kenyan listed banks. Because online banking is more efficient at delivering financial services, it promotes stability and growth in the economy.

Technological advancements, the utilization of numerous distribution channels, ever-changing consumer needs, and innovative financial products are all having an impact on Kenya's banking industry. To maintain competitiveness in an evolving atmosphere, banks have persisted in introducing new products, growing the scope of their current offers, and establishing new channels of distribution (Central Bank of Kenya Report, 2016). Therefore, the question is with branchless banking a new frontier emerging for revenue generation will it help commercial banks improve their financial stability.

1.1.2 Financial Stability

Agang and Njoka (2020) defined financial stability as a state in which the financial system comprising financial institutions, markets, infrastructure, and the broader economy operates efficiently and smoothly, even in the face of economic shocks or stress (Githinji, 2016). Financial stability is a key goal for financial institutions, as it enables them to operate effectively in fulfilling their role as intermediaries in the financial system. The CBK's role is not only to supervise Commercial banks but also to ensure financial stability of both commercial banks and the country as a whole. A study done by Mohamed, (2022) established that efficiency of banks on their operations were core to financial stability. Commercial banks can only be able to generate revenue and improve profitability through better utilization of their assets.

Various studies have been done to assess financial strength and weakness of financial institutions using various models. The Basel Committee of Banking Sector (BCBS) lists the CAMEL Rauf (2016) model as one way to evaluate financial stability. Githinji (2016) found that, in addition to promoting individual institutions' health, financial system stability also promotes economic development in her investigation of the factors influencing financial stability among Kenya's financial. She came to the conclusion that internal elements influencing the stability of commercial banks include operational costs, capital size, and productive staff.

The goal of Chinoda and Mingiri's (2023) analysis was to evaluate how bank rivalry and digital financial inclusion affect the stability of banks. According to the study, banks' stability as determined by the Altman Z score had a favourable and substantial link with digital financial inclusion. Credit risk, which represents the asset quality of financial institutions, was used in the study to gauge financial stability.

When a borrower is unable to fulfil their contractual obligations regarding loan repayment, credit risk arises. The creditor will incur increased costs for debt collection, loss of principal and interest, and disruption of cash flows. The bank wants to control credit risk by making sure the rate of return is capitalized. In addition to the risk associated with individual transactions, the bank's inherent credit risk must be handled for the benefit of the entire group (Agang & Njoka, 2020). In current research, credit risk was quantified by the ratio of total loans in default to total loans disbursed.

1.1.3 Branchless Banking and Financial Stability

Branchless Banking is seen as leveraging agent and technological infrastructure to minimize capital expenditure, attract new clients thus driving up high volume of transactions required for financial stability. The outbreak of covid 19 Pandemic not only threatened global economy but also ignited a huge financial shock that adversely affected financial markets. Financial stability of commercial banks was threatened due to tough measures of quarantine, lockdown and isolation which increased the number of non- performing loans (Siti *et al.,* 2022).

According to Mohamed (2022), banking sector efficiency involves making the best use of capital and can be leveraged to boost credit growth within the sector, which in turn promotes economic development. According to Musau *et al.* (2017), the financial sector experienced significant technology advances that sparked the creation of new financial products and financial innovation, which altered the financial landscape by providing straightforward, effective, and affordable financial services. Moreover, it was observed that financial institutions that had adopted branchless banking strategies were associated with increased number of customer deposit accounts, loan accounts and capital reserve which forms part of financial stability.

1.1.4 Commercial Banks in Kenya

The Central Bank of Kenya holds responsibility for the regulation and oversight of financial institutions. Financial institutions are classified into three peer groups according to their net assets, capital and reserves, quantity of client deposit accounts, and number of loan accounts. These groupings are referred to as tier one, tier two, and tier three (Central Bank of Kenya Report, 2020). As of the end of 2023, Kenya had nine tier one commercial banks, seven tier two commercial banks, and twenty-two tier three commercial banks. This makes up a total of 38 commercial banks.

The banking industry has performed admirably in recent years. However, Consolidated Banks of Kenya, Mayfair Bank Ltd., DIB Bank of Kenya, Spire Bank Limited, Transnational Bank, Jamii Bora Bank ltd and Bank of Africa are among the commercial banks that suffered losses in 2019 (Central Bank of Kenya Report, 2019). In 2020, the following seven banks declared losses: Transnational Bank, Bank of Africa, DIB Bank of Kenya, Access Bank, Kingdom Bank, Mayfair Bank Ltd., and Consolidated Bank of Kenya. Access Bank also bought Transnational Bank (CBK Report, 2020).

1.2 Statement of the Problem

Any nation's financial system revolves around its banking sector since it serves as a conduit for capital flows, which are essential for the expansion and development of economies. Nguyen (2022). They also mobilize savings and finance Government economic activities which create an attractive environment for investors leading to creation of employment opportunities, improved standard of living and expansion of industries. The CBK observed that the utilization of various delivery channels, inventive financial products, evolving customer needs, and technology advancements were all having an effect on the Kenyan financial services sector. As a result, banks

continued to launch new products, enhanced their current offerings, and add new distribution channels so as to remain relevant in an evolving environment (CBK Report, 2016).

The CBK annual supervisory report indicated that the banking industry's non-performing loan portfolio had an increasing trend. The World Bank study from 2018 indicates that, compared to 5.46% in 2014, the percentage of NPLs in Kenyan banks' total gross loans increased to 5.99%, 8.59%, 9.95%, and 11.69% in 2016, 2017, and 2018, respectively. Further, Central Bank of Kenya Report, (2022) indicated that NPL increased from KES 220,891 million in 2016 to KES 423,710 million in 2022. Moreover, financial stability had pushed some commercial banks into liquidation, some opted for mergers and acquisitions. For example, the 2021 liquidations of Chase Bank, Charterhouse Bank, and Imperial Bank.

Research has been done to evaluate the effects of branchless banking on commercial banks' financial soundness. Digital payments and bank loans were the subject of a research by Risman *et al*. (2021) in Indonesia, not Kenya, which discovered that digital finance improved banks' financial stability. But not all transactions, including financial breakthroughs, were covered by the study. Winga and Ndede (2021) carried out research on Kenya's tier one commercial banks' implementation of financial innovation and financial deepening. Six tier one financial institutions in Kenya were the only participants in the study, which used a correlational research design. Kimonge *et al.* (2017) discovered that branchless banking positively influences the financial health of Kenyan financial institutions. The indicators for the independent variable were investments in agency banking and investments in electronic banking.

It is evident that more focus on the dependent variable has been laid on financial performance and financial deepening. Most of research has not examined the combined impact of the four indicators of the independent variable under investigation, which are the utilization of ATMs, agency banking, mobile banking, and online banking services. Few studies were conducted in Kenya, while the majority were conducted outside the country. Consequently, the intent of this research is to investigate the effect of Branchless Banking services on Financial Stability of Commercial Banks in Kenya.

1.3 Objective of the Study

1.3.1 General Objective

To ascertain the effects of Branchless Banking services on financial stability of commercial banks in Kenya.

1.3.2 Specific Objective

i. To ascertain the effects of ATMs services on financial stability of Kenya commercial banks.
ii. To examine the effects of Agency Banking services on financial stability of Kenya commercial banks.
iii. To establish the effects of Mobile Banking services on financial stability of Kenya commercial banks.
iv. To assess the effects of Online Banking services on financial stability of Kenya commercial banks.

1.4 Research Hypotheses

To attain the study's particular objectives, the following hypotheses were formulated;

$H0_1$: Automated teller machines services have no substantial effect on financial stability of Kenya commercial banks.

$H0_2$: Agency banking services have no substantial effects on financial stability of Kenya commercial banks

$H0_3$: Mobile banking services have no substantial effects on financial stability of Kenya commercial banks.

$H0_4$: Online Banking services have no substantial effects on financial stability of Kenya commercial banks.

1.5 Significance of the Study

Many banks in Kenya are currently involved in various restructuring processes and financial distribution channels is one of the areas of concern. Managers of financial institutions and financial institutions in Kenya will gain insight from the research as it will allow them to evaluate the overall financial performance effects of branchless banking distribution channels and to formulate or modify policies and guidelines for enhanced resource utilization. They may acquire and sustain an edge in the banking sector as a result, will lead to improved financial stability by generating higher financial returns.

This study would useful to Scholars and academicians who wish to carry out research as part of their contribution to the existing body of knowledge, make prediction, and find out flaws or inconsistencies done on previous studies. Therefore, this study will be of importance to them as they will be able to carry out further research on this topic or act as a guideline for undertaking their own research study.

Policymakers and the government will benefit from the study, as they will uncover information that clarifies the influence of branchless banking on the financial soundness of banks. Additionally, assist them in developing financial rules and regulations to improve financial stability for the nation as a whole as well as the banking industry.

Also, the various county governments can utilize branchless banking models as one of the tools to encourage a saving culture.

1.6 Scope of the Study

A research on how branchless banking services affect Kenyan commercial banks' financial health was conducted between September 2023 and October 2024. The study's scope was confined to financial institutions with current licenses that are actively engaged in the banking sector as of December 31, 2022. Branchless banking channels that were covered under this study were limited to Automated teller machine, Agency banking, mobile banking and online banking services. The study used panel data within a span of 7 years from 2016– 2022. The period was relevant since a span of 7 years is long enough to establish changes observed with usage of alternative branchless banking services. Also, some branchless banking services such as mobile banking services and online banking services were introduced after 2015. In addition, during this period commercial banks recorded increasing amounts of NPLs.

1.7 Study Organization

There were five chapters in this study. The background information, problem statement, goal, research hypotheses, study scope, study restrictions, and study organization were all included in the first chapter. The second chapter was a review of the literature, which looked at the theoretical underpinnings and empirical research on the study's topic. The target audience, research design, methodology, data gathering tools, data visualization, and analytic methodologies were all covered in Chapter three. The fourth chapter presented the research findings and analysis while the fifth chapter presented the summary of study findings, conclusions and recommendations.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presented theoretical and empirical literature on the effects of Branchless Banking services on financial stability. The theoretical review analyzes the theoretical perspectives of the research variables, whereas the empirical evaluation encompasses previous studies related to these variables. Research gaps on the conceptual framework and examined literature were also presented.

2.2 Theoretical Review

The research employed the following theories: financial intermediation, agency, diffusion of innovation, and stakeholder theory.

2.2.1 Financial Intermediation Theory

The work of Gurley and Shaw is where financial intermediation theory emerged in (1960). The agency theory and the premise of informational asymmetry underpin the financial intermediation theory. Theoretically, three factors contribute to the presence of financial intermediaries: regulatory methods, high transaction costs, and a lack of timely information. This technique was developed and revised by Smith (1976) and Fama (1980) in response to participant differences in the technologies they used. Consequently, a group of private creditors or debtors that leverage economies of scale at the transactional technology level are labeled intermediates. The idea of transaction cost includes costs for oversight, evaluation, and research in addition to the costs involved in transferring foreign currency amounts. Therefore, the function of financial intermediaries is to change the attributes of assets, change the quality of financial assets, provide liquidity, and create chances for placement diversification (Mayowa, 2020).

Financial intermediation asserts that there is need of matching lenders who have excess funds with borrowers who need the money. The resource allocation models that underpin this theory are predicated on the perfect and full market hypothesis, which holds that there is no information asymmetry and that the market is frictionless. The effective distribution of capital resources within the economy requires the involvement of commercial banks and other financial intermediaries. This hypothesis states that financial intermediaries serve as middlemen, which reduces net costs (Kimonge *et al.*, 2017). The model generates robust predictions on the contracts utilized by financial intermediaries, facilitating the analysis of critical banking policy issues in a manner that enhances sustainability and efficiency.

The fundamental tenet of financial intermediation theory, according to Bert and Dick (2003), is that intermediaries reduce transaction costs and informational asymmetries. According to financial intermediation theory, the depth of financial markets, deregulation, and information technology improvements tend to eliminate informational asymmetries and transaction costs, making intermediation inefficient. This runs counter to the practitioner's understanding of financial intermediation as an economic process that creates value. It also contradicts the continuing and growing economic importance of financial intermediaries. This paradox suggests that the presence of financial intermediaries cannot be sufficiently characterized by the current theory of financial intermediation.

The main benefits of intermediaries are lower operational expenses and a consistent transfer of funds from units with surpluses to those with deficits. Because they can solve the problems of information asymmetry and market failure, they can also change the risk characteristics of assets.

Commercial banks use digital banking technology as the middlemen in this financial arrangement to expand their network and obtain more accessible deposits. These deposits can then be lent out at a higher interest rate by the commercial banks, who profit from the arrangement. This theory therefore is the main theory that will inform the explanatory variable of the study which is branchless banking services.

2.2.2 Agency Theory

Jensen and Meckling (1976) established the theory of agency. This theory examines the interactions between company owners and their representatives. In agency theory, the initial question is the adequacy of market mechanisms that enable actors to optimize a firm's wealth in scenarios when the two levels of control are separated. According to agency theory, an agent is given power by the principle to carry out transactions and make choices on the principal's behalf in an effort to maximize the firm's value. In order to lower agency costs, they underlined the significance of contractual arrangements, oversight procedures, and incentive alignment. Agency theory offers a mathematical tool for assessing situations involving parties who lack mutual trust and aims to characterize the relationship in terms of behavioural traits.

Determining the ideal principal-agent contract is the goal of agency theory. An agency link arises when the principal assigns tasks to the agent. The agent's job is to serve the principal's interests as best it can. The agent makes decisions on how to do business that have specific consequences in order to complete the objective.

One of agency theory's primary objections is its restricted emphasis on egocentric agents that aim to maximize riches at the principal's expense. According to critics (Wiseman, Cuevas-Rodríguez, & Gomez-Mejia, 2012), agency theory ignores the social context in which principal-agent exchanges take place.

Agency theory supports the current study since it suggests that financial innovation can help to align the incentives of different stakeholders in the banking sector. In the current study agency banking is an independent variable. Therefore, this theory shows the link between the agents and the principals (commercial banks).

2.2.3 Diffusion of Innovation Theory

Everett Rogers (1962) created the theory of diffusion of innovation (1962). It describes how innovations, products, technology, and new ideas are embraced and disseminated within a social structure. The theory underscores the significance of social networks and communication channels in the dissemination process and distinguishes various adopter kinds. Innovations are adopted by innovators who are open to new ideas and technologies. Early adopters play a crucial role in spreading innovations among their social circles. Early majority adopts innovations through the influence of early adopters and the growing acceptance of the innovation. The laggards are the last category to adopt innovations, often doing so mainly due to social or economic pressure.

Diffusion of innovations theory suggests that branchless banking innovations can spread rapidly throughout the industry as banks adopt and adapt new ideas and technologies. This can create a virtuous cycle of innovation, as new ideas and technologies are refined and improved over time. Technological innovation and competition in the era of globalization force organizations to manage institutions well so as to have a competitive advantage and ability to increase their current capacities.

One of the Diffusion of Innovation theory's drawbacks is that it emphasizes individual adoption above organizational change processes. Moreover, it does not adequately account for the overlapping effects of various contexts and domains, such as the

distinctions between this product and earlier ones in terms of technology, society, and cognition (Wani, & Ali, 2015).

The present study found relevance in the diffusion of innovation theory, considering its crucial significance in the banking sector in shaping the uptake and dissemination of novel financial products, services, and technologies among financial institutions and their clientele. As the banking sector continuously evolves with advancements in technology and changing customer preferences, the diffusion of innovation becomes even more relevant. It encourages banks to embrace an innovation-focused culture. By understanding how innovations such as online and mobile banking spread and what drives adoption, banks can foster an environment that encourages experimentation, collaboration, and creativity in developing new products and solutions.

2.2.4 Stakeholders Theory

One may argue that Adam Smith's 1937 characterization of the firm's external interests was an early identification of stakeholders, with customers being those outside the company who were impacted by and had an interest in it. In his book Strategic Management, R. Edward Freeman introduced the idea of Stakeholders theory in 1984. Stakeholders, according to him, are any group or person who has the potential to influence or be impacted by the accomplishment of corporate goals. He expanded upon the ground breaking work done at Stanford Research Institute in the 1960s that introduced the term "stakeholder," which was first used by Ian Mitroff, Richard Mason, and James Emshoff.

Stakeholder management aimed to develop strategies for managing the many groups and interactions that emerged in a strategic way. When developing company plans, a stakeholder approach places a high priority on connections, active management of the

corporate environment, and the promotion of common interests. Stakeholders include all entities inside an organization, including customers, employees, managers, regulatory bodies, unions, and societal members. It is irresponsible for an organization to function just for profit without considering its stakeholders.

Stakeholder theory has been criticized. First, some argue that Freeman's definition of stakeholders is very vague because it classifies terrorists and animals among other things. Second, it is considered unethical to impose additional fiduciary duties on stakeholders, as this could put managers in danger of moral hazard. Third, others contend that since contract law and regulation already protect the interests of stakeholders, further protection for them may be unnecessary. Fourth, evidence from German studies has called into doubt the notion of stakeholder engagement on the board, notably labor (Parmar *et al.*, 2010).

This hypothesis supported the current study by demonstrating that many stakeholders have an impact on the financial performance if their needs, interests, and claims are not satisfied. Therefore, commercial banks should adopt a stakeholder-centric approach to business management and strive to align their strategies with the interests of all stakeholders, while still meeting their economic goals which will in turn lead to long-term sustainability and improved financial stability.

2.3 Empirical Review

2.3.1 Automated Teller Machine and Financial Stability

In order to determine how cashless banking might affect the profitability of Pakistan's banking sector, Kamboh and Leghari (2016) conducted research. They showed that whereas CCT and ATMT were inversely correlated with bank profitability, POST and MOBT were positively correlated with ROE. Empirical gap emerges as the relationship

of the study variables gave negative relationship in contrast to the bulk of prior researches. The current research sought to fill a contextual since the setup of the study was in Pakistan.

Ngan and Hoang (2020) looked into how Vietnam's banks performed in relation to service delivery technologies. A sample of 21 Vietnamese commercial banks from 2007 to 2019 was utilized in the study, and the link between the banks was evaluated through a regression model and a robust test. The study's conclusions indicated that mobile and internet banking significantly and favorably impacted commercial banks' performance, whereas ATM implementation had no effect on those banks' financial performance. A contextual gap was established in that the study was done at Asian continent perspective which might have different economic conditions from the Kenyan set up. There was also need to incorporate agency banking to assess its impact on banks' performance. The measure for ATMs was the degree of implementation which would have minimal value in determining the success of banks thus there was need to focus on the volume and value of ATMs transactions in relation to banks financial stability.

Alabi and Olaoye (2022) focused on China and Nigeria while examining how technology adoption affected financial inclusion. For analysis, the study used pooled OLS and Feasible Generalized Least square estimators with secondary data. The number of depositors served as a proxy for financial inclusion, whereas the use of automated teller machines, the internet, mobile phone subscriptions, GDP per growth rate, and GDP per capital were indicators for the independent variable. The outcomes revealed a favourable but statistically non-significant correlation between the use of ATMs, the internet, mobile phone subscriptions, and financial inclusion. The current research was narrowed to the banking industry in Kenya since the previous focused on two nations which were wider in scope.

Mukamunana and Shema (2019) evaluated the impact of automated teller machines on the financial health of financial institutions in Rwanda. The results showed a substantial correlation between the use of the machines and the banks' financial success. ROA served as an indicator of financial performance, while ATMs transactions, fewer errors and fraud, and a decline in the number of bank tellers were indicators of the independent variable. It was established that there was a substantial link between the Bank of Kigali's financial success and its automated teller machine transactions. There was need to fill a Contextual gap since Rwanda`s economic conditions would be different from Kenya. The study considered a narrow dimension of branchless banking thus comparison would not be possible.

Bochaberi and Omagwa's (2021) assessed the impact of ATMs on the financial health of a few Kenyan financial institutions. Financial performance was estimated using Net income, Loan book value, Liquidity ratio and capital strength while the indicators for the independent variable were flexibility and affordability, network coverage, accessibility and number of ATMs. The outcomes suggested that ATMs had an impact on Kenyan commercial banks' performance because they offered financial services at reasonable, convenient prices, which encouraged client to use thus boosting banks' revenue generation and profitability. A contextual gap existed since the operating environment is dynamic, hence there was need to consider the current period for analysis.

Mutiso (2017) researched the effect of ATMs on the ROA of Kenyan's listed commercial banks utilizing Schumpeter's theory of innovation, Marxian economics, and modern economic theory were all incorporated in the study. Secondary data covering the period between 2007-2016 was collected and analysed using linear regression model. The automated teller machine and return on asset were found to have

a substantial association. Return on asset was the study's dependent variable, contextually there was need focus on financial stability.

2.3.2 Agency Banking and Financial Stability

Mahbub, Dipti, and Diponkar's (2021) study set out to assess the influence of agency banking on financial success of Bangladesh's financial institutions. A sample of 19 listed commercial banks was selected, and secondary data covering the years 2016 to 2019 was used. The study's conclusions suggested that while the quantity of deposits and agents greatly enhanced the commercial banks in Bangladesh's financial health, the volume of withdrawals and loan disbursements had the reverse effect. Contextually the study was done in Bangladesh, need to consider the same in the home country. There was also a Conceptual gap in that the independent variable was narrower in scope since it only focused on a single channel of branchless banking. This research focused not only agency banking but also incorporated other forms of branchless banking.

The impact of financial inclusion policies on the financial success of Rwanda's financial institutions was investigated by Byukusenge and Muiruri (2021). The survey used a sample of 92 respondents with a specific focus on I&M bank. It was established that there was a substantial link between the Bank of Kigali's financial success and its automated teller machine transactions. The banking sector in Rwanda may be governed by different laws and regulations than those of Kenya, hence the results of the study would on only be applicable in to Rwanda.

Ndambuki (2016) employed a descriptive research approach to investigate how agency banking affected Kenyan commercial banks' profitability. According to the research outcomes, the quantity of deposits had a large and negative impact on Kenyan commercial banks' profitability, while the number of agents had a little beneficial

impact. The research also identified a little adverse link between the profitability of Kenya's financial institutions and the volume of withdrawals and bill payments processed. The operating environment keeps on changing and therefore there was need to consider the current period for analysis.

Research was done by Mohamud and Warui (2021) to examine how financial performance was affected by novel banking techniques. The study looked at all 41 of Kenya's commercial banks using an explanatory survey research methodology. Specifically, the study assessed the effects of agency banking, Real time gross settlement, electronic banking and pay bill innovative mobile banking, on cash ratio and working capital ratio. Results revealed that when agency banking, RTGS, EFTS and mobile banking were increased, financial performance also increased. There was need to fill a methodological gap, since Cash ratio and working capital ratio may not be appropriate measures of financial success in the banking industry as per the banking Act guidelines. The current research used credit risk as a measure of financial stability.

Wanalo, Mande, and Aketch (2020) assessed the effect of technological innovation on the financial success of Kenyan banking institutions using Silber's constraint theory of innovation and financial intermediation theory. The research employed a descriptive research approach and looked at fifteen Kenyan financial institutions as a sample. The research centered on the impact of ATM usege and agency banking on return on asset. It was demonstrated that the selected Kenyan commercial banks' financial success was enhanced by the usage of ATMs and agency banking. There was need to fill a methodological gap since the study failed to describe the scientific method of sample selection. Economic environment has also changed from 2016 thus there was need to consider current data period for analysis.

Kanyore, Abdulkadir, and Kingi (2017) studied the impact of agency banking on the NSE-listed banks' financial results. Financial success was measured using return on assets (ROA), with market share, transaction cost, and accessibility to financial services serving as an independent variable indicator. A descriptive research methodology was employed in the study, and the collected data was analyzed utilizing multiple linear regression modeling and correlation analysis. Agency banking and the financial success of listed commercial banks were found to have a high positive correlation by the study. The current sought to fill a conceptual gap as the study only focused on agency banking which is one of branchless banking channels.

2.3.3 Mobile Banking and Financial Stability

Magallón, Galeana and Prado, (2022) assessed the impact of banking innovation on profitability. The study examined multiple reports conducted at various dates and in different places, various innovation such as mobile banking, ATMs correspondent and point of sale usage. The study was divided into three steps; presentation on evolution of banks and their main innovations, presentation of primary reference of the articles to establish the relationship and analysis of branchless banking concept and its factors. The empirical research and published data revealed a little correlation between the profitability of the Mexican banking industry and innovation in banking. There was need to fill a contextual gap since the research was carried out in Mexico and therefore the results of the study would not apply in Kenya.

Sumaylo, Babon, Bayaras, Pedrigal, Teodosio and Susada, (2022) evaluated the impact of digital finance inclusion among Philippine banks. Data from the period 2017 – 2019 was collected and analysed using correlation analysis and Z score for both universal banks and commercial banks. For both Philippine commercial and universal banks, it

was shown that higher levels of digital financial inclusion were linked to higher levels of banking stability. Further research is necessary to ascertain the effect of digital financial services on bank stability, as the study's conclusions were inconclusive.

Puri, Kaur, Kalra and Gill, (2023) examined the banking stability and digitalization evidenced from selected Indian banks. The study employed a sample of five commercial banks and five public banks during a ten-year period, from 2011 to 2020. Regression models based on two stages of least squares were used to measure the indicators for the independent variable, which included real-time gross settlement, national electronic fund transfers, and mobile banking. The results of the study showed that real-time gross settlement, national electronic cash transfers, and mobile banking all significantly and critically impacted the stability of Indian banks. Given that the study was done in India, the current study sought to fill a context gap.

Tshukudu, Mokatsanyane, Schen, Rensburg, and Sgammin (2022) researched the correlation between financial technology and the financial success of commercial banks in South Africa. This research concentrated on the five leading financial institutions while employing a correlational research approach. Mobile broadband subscription served as the indicator for the independent variable and return on equity and asset ratios were used to measure the dependent variable, which was financial health. The research’s conclusions showed a connection between the five banks that were chosen for the analysis's financial performance and financial technology.

Olawale, Balogun, and Oluseun (2023) researched how financial innovation affected the bottom line of banks. The study concentrated on the effects of ATMs, online and mobile banking, and ROE and ROA. 24 deposit money banks were chosen as a sample and utilized. Financial innovation hypothesis induced by constraints, diffusion, and

Schumpeter theory of innovation. Secondary data for 10 years from 2012-2021 was collected and analysed using Autoregressive distributed lag model. The study's conclusions showed that point of sale had the biggest influence on performance, whereas the utilization of ATMs, mobile banking, internet banking, and agency banking improved deposit money banks' financial performance over the short- and long-terms. The research's dependent variable was financial performance which is wider in scope thus showing a contextual gap.

An investigation of E-banking strategy and financial success of financial banks was carried out by Kavila & Kilika (2023). The research utilized a descriptive approach and comprised all 39 Kenyan banking institutions. The E-banking strategy was found to have a substantial association with the financial returns of commercial banks, as determined by ROE as supported by correlation results and p-value analysis. The study dependent variable was financial performance thus showing a contextual gap.

Obadia and Kumungunyi's (2022) assessed how mobile banking affected Kenya's tier 1 commercial banks' financial success. A causal research approach was used in the study, which included a sample of six listed financial institutions. The regression test findings indicated that there was a negligible negative correlation between the financial performance of the six listed tier 1 financial institutions and mobile banking. Empirical gap arises since the study revealed a negative relationship which contradicted majority of the previous studies reviewed. Thus, there was need to do more analysis to find out the outcome of the research. Similarly, the results of the study were limited to six listed tier one commercial banks.

2.3.4 Online Banking and Financial Stability

Mihaela, Bădîrcea, and Manta (2022) examined how digitization affected the financial success of the banking industries in Central and Eastern European nations that were dealing with COVID-19 issues. The study, which focused on the ten Central and Eastern European countries (CEECs), included a twelve-year period from 2010 to 2021. Financial success was the dependent variable, as ascertained by ROA, ROE, and NPL; the independent variables' indicators were internet banking, banking security, and technology, including credit cards, debit cards, and ATMs. The outcome of the regression analysis showed that the banking industry's financial performance was positively impacted by both the rise in online banking usage and the security of bank servers. The influence of agency banking and mobile banking, two more facets of digitalization must be ascertained because, unlike in Kenya, this study was carried out in Central and Eastern Europe. It centered on the effects of COVID-19, online banking, and ATMs. Since this study was conducted in affluent nations, analogous research in developing nations is required to determine how digitalization and branchless banking services affect financial stability. Also, the study analysed the banking industry as a single unit which is wider in scope.

Ghose and Maji (2022) looked into the relationship between Indian banks' profitability and their use of the internet for banking. A sample of 67 commercial banks that operated in India between 2011 and 2020 were used in the study. The research primarily looked at the connection between the amount of money that commercial banks make from their assets and returns on equity when it comes to internet banking. The three-stage least square approach and Generalized Methods of Moment (GMM) were utilized to analyse the data and quantify performance. The study outcomes showed that commercial banks' total profitability grew with the volume and value of their online banking.

In their study, Syed, Özen, and Kamal (2022) aimed to investigate how digital financial services affect the efficiency and stability of banks in both advanced and emerging countries. The study utilized a sample of the United States and India spanning the years 2004 to 2018. The study concentrated on the effects of digital bank performance and reliability on transactions conducted over the internet and mobile devices. Auto Regressive Distribution Lag was utilized to analyse the data (ARDL). The study indicated that although the spread of digital financial services over an extended period of time enhances financial stability and efficiency, the rapid growth of digital services in India had a negative impact on these aspects. That both the short- and long-term growth of digital financial services had benefitted the financial efficiency and stability of the United States. The current researched aimed at addressing a contextual gap by solely concentrating on the banking sector in Kenya.

Kenechukwu and Molokwu (2022) studied the effects of digital banking on the success of Nigerian commercial banks. The research concentrated on the relationship between the return on asset of banking institutions and point-of-sale, digital banking, and unstructured supplemental service data transactions. Technology acceptance theory, agency theory, and the unified theory of technology were all applied in this study, which used an ex post facto research approach. The findings of regression analysis showed a slight but positive link between digital banking and the financial stability of Nigerian financial institutions.

Kinyua and Omagwa (2020) conducted an evaluation to determine how banks listed on the NSE were affected by financial inclusion and bank stability. Using eleven listed commercial banks as its target population, the study employed a descriptive research design for the years 2014–2018. The findings indicated that the NSE-listed commercial banks' bank stability was significantly impacted by their financial accessibility,

utilization, availability, and delivery. Given that commercial banks are divided into three categories according to capital sufficiency, asset quality, management, profitability, and liquidity, the study's sample results might not apply to all banks in the Kenyan banking sector.

2.4 Research Gaps

A localized investigation is necessary because, as the empirical literature makes clear, the current study has benefited more from contributions from the European and Asian continents. From the above literature, it’s clear that most researches assessed single channel of branchless banking in relation to financial performance. Moreover, a number of studies reviewed focused on financial performance which is wider in perspective. Therefore, there was need to carry out a study to considers a number of branchless banking services in relation to financial stability which is an aspect of financial performance.

Table 2.1: Research Gaps

Author (s)	Purpose/Objective	Results	Gap	This study focus
Kamboh & Leghari, (2016)	To investigate how the profitability of Pakistan's banking sector is impacted by ATM, POS, call center, and mobile banking transactions.	POS transactions and Mobile banking transactions were positively related to ROE, while Call Centre transactions and Automated Teller Machine transactions were negatively associated with viability of the banks.	The banking industry was the primary analytical unit of a study conducted in a foreign nation.	The investigation only looked at Kenyan commercial banks.
Alabi & Olaoye (2022)	To look into how mobile phone subscriptions, internet use, and ATM use affect financial inclusion.	The research outcomes showed a positive, if not statistically significant, correlation between internet, smartphone, and ATM use and financial inclusion.	The study was limited to financial inclusion hence branchless banking services form part of financial inclusion strategies.	The current study not only considered the usage of the four branchless banking services but also the value derived from using the channels.
Mukamunana & Shema, (2019)	To determine how Automated Teller Machine transactions, affect Commercial Banks' Financial Performance.	The use of ATMs and banks' financial performance were significantly correlated.	The study considered a narrow dimension of branchless banking thus comparison may not be possible.	Other branchless banking services other than Automated teller machine were explored.
(Khai & Cuong, 2022)	To assess how Fintech development and market discipline affect financial stability in a developing market	findings indicated that financial technology development had negative effect on financial stability	Study conducted in foreign country not in Kenya. Independent variable focused on the wider scope on financial technology development	The current study was limited to Kenya’s commercial banks

(Syed *et al*., 2022)	To investigate how digital financial services, affect the efficiency and stability of banks in developed and developing nations.	In India, the short-term growth of digital services has a detrimental effect on the stability and efficiency of banks, whereas the long-term growth improves both.	Setup of the study was in India and united states. Also, the study focused only on two branchless banking services	Current study considered four branchless banking services in a Kenyan set up.
Byukusenge & Muiruri, (2021)	To investigate how agency banking affects Rwanda's commercial banks' financial success.	The research's conclusions demonstrated that differences in agency banking and financial inclusion approaches were responsible for 59.4% of the fluctuations in financial institutions' performance.	The study focused only on one bank. Also, economic conditions in Rwanda and Kenya banking industry may not be the same.	The research was confined to Kenyan financial institutions.
Ndambuki, (2016)	To determine the effect on Kenya's commercial banks' profitability of the amount of bill payments, the number of agents, deposits, and withdrawals.	The quantity of deposits had a large detrimental influence on banks' profitability, although the number of agents had a somewhat favorable effect.	Methodological gap exist as the sample selection was not Scientific since the researcher purposively selected 12 commercial banks.	The current study used a scientific method of sample selection.
Kanyore *et al*., (2017)	To ascertain how growing market share, transaction costs, and the availability of financial services through agency banking affect the financial success of Kenya's listed banking institutions.	The research's outcomes demonstrated a substantial beneficial relationship between the financial health of listed commercial financiers and agency banking.	Conceptual gap. The research only focused on agency banking which is one of branchless banking channels. Also, the study utilized listed financial institutions which have received more contributions as compared to tier three banks	Current study examined four branchless banking services focusing on commercial banks.

Magallón *et al*., (2022	To assess the effect of mobile banking, ATMs, point of sale and Correspondents on banks profitability.	The available data and examined empirical research suggested that there was little correlation between the profitability of the Mexican banking industry and innovation in banking.	To draw specific conclusions, a qualitative study and a quantitative research strategy must be used together. Furthermore, the research was performed in an industrialized nation.	Current study used a quantitative research design focusing on a developing country.
Musau, (2022)	To evaluate the impact of ATMs, mobile banking, and branch networks on Kenya's commercial banks' stability.	That increase in branch networks increase operating costs, while increase in number of ATM networks, Agency banking services and mobile banking increases customer deposits which enhances banks liquidity.	The study's focus was on Kenya's 42 commercial banks. It's possible that consumer preferences and the business climate have altered as of 2015.	The study used current data covering the period 2016-2022 and was limited to commercial banks

Source*:* Researcher (2024)

2.5 Conceptual Framework

The study variable was presented diagrammatically in a conceptual framework, which shows the relationships between the study variables. The four indicators for branchless banking were the value and volume of transactions made through ATMs, agency banking, mobile banking, and online banking. These four indicators made up the explanatory variable for the study about branchless banking. The dependent variable was financial Stability which was measured by Credit risk.

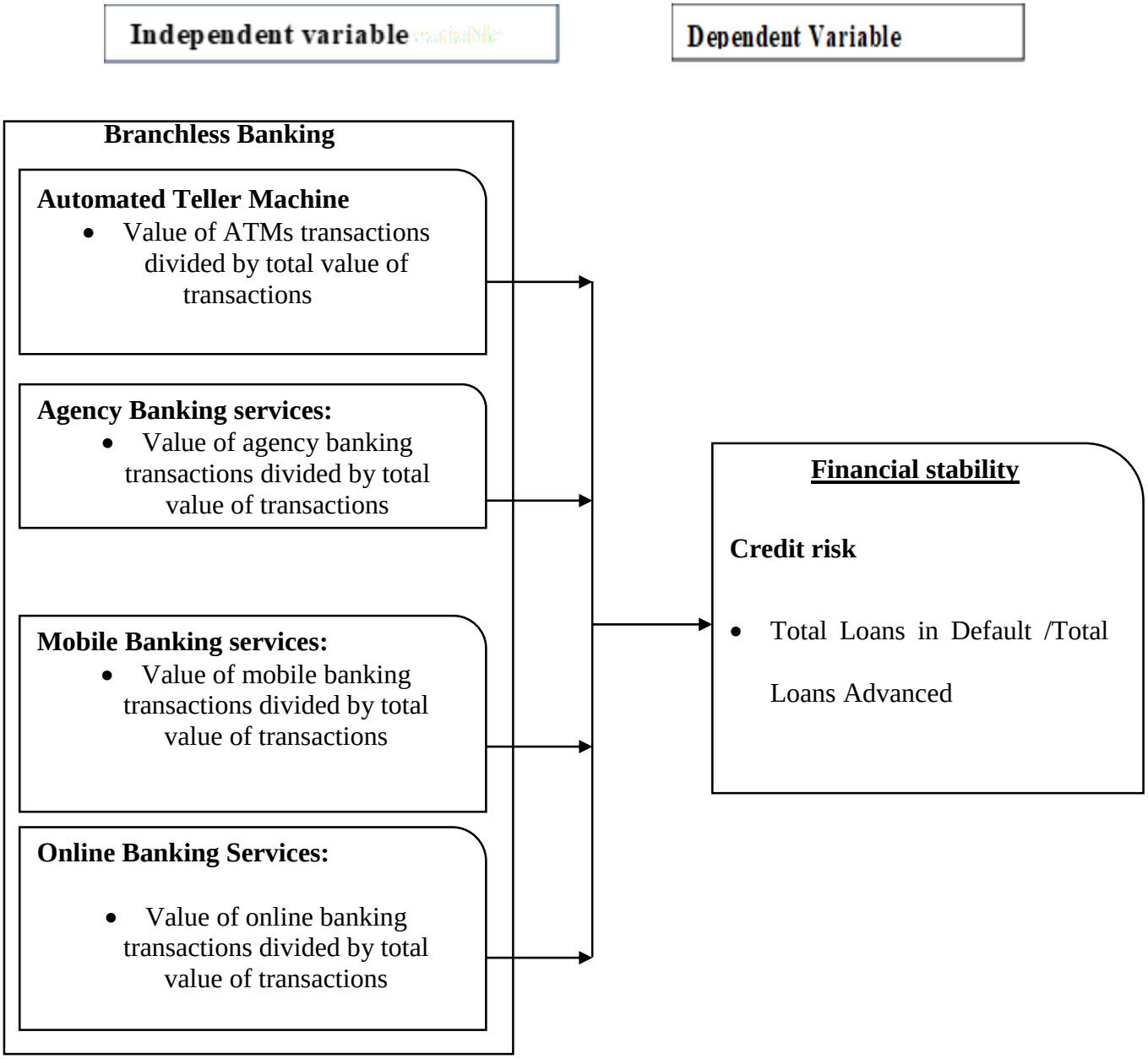

Figure 2.1: Conceptual Framework

Source: Researcher (2024)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The research approach that was utilized to carry out the suggested research so as to meet the study objectives is presented in this chapter. It draws attention to the target audience, data collection tools, data collection methods, and research design. It includes diagnostic testing, ethical considerations, and data analysis and presentation equally.

3.2 Research design

Tesfaye Boru (2018) aver that a research design is the process used in research studies for data collection, analysis, interpretation, and reporting, referencing Creswell & Plano Clark (2007). The entire study process, from conception to data collecting and analysis, is shaped by this plan. A systematic framework or plan outlining the different methodologies and strategies of inquiry for a research project is called a research design (Creswell, 2009). Thus, a research design plays a central role in shaping the entire research process as it defines what the research study aims to achieve and the questions it seeks to answer.

Quantitative research was employed for analyzing the link between the research's variables. The research utilized an explanatory research approach to achieve this objective. A methodical investigation technique used to investigate and clarify the causal relationships between variables or phenomena is known as an explanatory study design. The explanatory research approach, according to Bryman and Bell (2015), is helpful in illuminating the existence of a certain problem or condition. Through hypothesis testing, explanatory research design assisted in explaining the nature of specific interactions among the study variables. This helped in explaining the links that

exist between branchless banking services and financial stability of financial institutions.

3.3 Target population

Kothari (2006) defines the population as everything related to any field of study. Therefore, the complete group of individuals, institutions, circumstances, or items that possess certain observable characteristics is the target populace. The 38 banking institutions listed by the CBK as of December 2022 (Appendix II) were the study's target audience. The research employed a census technique whereby all the units of the target population were considered for analysis since the population was small.

3.4 Data Source and Data Collection Instrument

The research utilized secondary data. Using a data collecting sheet that was taken from earlier studies, secondary data was gathered. Data collection sheet had data for the independent and dependent variable covering the period from 2016 to 2022. The yearly supervision reports of the CBK, bank surveys, and the official websites of each individual bank were the sources of this data.

3.5 Data Collection Procedure

The graduate school at Kenyatta University provided the researcher with an authorization letter. Then the researcher requested for a research license from NACOSTI. Once a research license was granted, the researcher sought consent of the managing director of the 38 banks in writing. The researcher then visited the individual official websites of the banks and the CBK to collect the data.

3.6 Operationalization and Measurement of Variables

The study variables were operationalised, and the results are shown in Table 3.1 below.

Table 3.1: Operationalization and Measurement of Study Variables

Variable	Type	Operationalization	Measurement	Scale	Hypothesized Direction
Financial Stability	Dependent	Credit risk-likelihood that the debtor may not be able to repay back the loan	Total Loans in Default / Total Loans Advanced	Ratio	Positive or Negative
Automated teller Machine services	Independent	Value of ATMs transactions	Value of ATMs transactions divided by total value of transactions	Ratio	Positive or Negative
Agency Banking Services	Independent	The worth of banking transactions through agencies	Value of agency banking transactions as a percentage of overall transaction value	Ratio	Positive or Negative
Mobile Banking Services	Independent	Value of mobile banking transactions	Value of mobile banking transactions divided by total value of transactions	Ratio	Positive or Negative
Online Banking Services	Independent	Value of online banking transactions	Value of online banking transactions divided by total value of transactions	Ratio	Positive or Negative

Source: Researcher (2024)

3.7 Data Analysis and Presentation

The gathered data was coded, gleaned, tabulated, and shown in tables prior to analysis. Statistics, both descriptive and inferential, was used to draw conclusions. Descriptive

statistics include the mean and standard deviation, whereas inferential statistics include multiple regression analysis and Pearson's Product Moment Correlation. A p-value for an independent variable less than 5% at a 5% threshold of significance means that there is insufficient data to reject the null hypothesis (Oso & Onen, 2009). Multiple regression analysis is the most suited analysis method for investigations involving several independent variables (Muchiri & Muturi, 2016). The study used STATA 14 software for analysis and the following multiple regression model was utilized:

$$\mathbf{Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon}$$

Whereby:

$\mathbf{Y_{it}}$ = Financial stability of bank *i* at a given time *t*

$\mathbf{X_{1it}}$ = Value of ATMs transactions at a given time *t*

$\mathbf{X_{2it}}$ = Value of agency banking transactions at a given time *t*

$\mathbf{X_{3it}}$ = Value of mobile banking transactions at time *t*

$\mathbf{X_{4it}}$ = Value of online banking transactions at time *t*

$\mathbf{B_o}$ = Constant term

βs = the coefficients of explanatory variables

ε. = Error Term

3.8 Diagnostic tests

The following preliminary statistical test were carried out before the main data analysis:

3.8.1 Multicollinearity Test

Multicollinearity is the condition in which two or more independent variables in a regression model have a substantial connection with one another. The degree of moderate or high correlation between the predictors in the regression model were ascertained through the application of multicollinearity. When multicollinearity is present, even small adjustments to the explanatory variables may result in unpredictable fluctuations in the coefficients that the multiple regression models estimate. Multicollinearity affects each predictor separately, instead of making the model less reliable. It could be challenging to fit the model and comprehend the data if there is a high level of correlation between the variables. The VIF was utilized in our multicollinearity test. The variance inflation factor quantifies the extent to which the variance of the predicted regression coefficient is inflated in the case of an association between the independent variables. According to Shrestha (2020), a VIF score between 1 and 5 denotes a moderate correlation between the variables, between 5 and 10 a high correlation, and beyond 10 a severe multicollinearity that requires adjustment.

3.8.2 Normality Test

Normality tests are methods used by statisticians in ascertaining if a given data set has a normal distribution. The Shapiro-Wilk test was utilized in ascertaining the distribution of study data. It is a statistical test that determines whether the distribution of a given dataset is normal. It investigates the null hypothesis, which states that every piece of data used in the research has a normal distribution. The alternative, however, asserts

that it is not regularly dispersed. If the assessment's p-value >0.05 level of significance, the null hypothesis is rejected.

3.8.3 Heteroskedasticity Test

A regression model exhibits heteroskedasticity if the variability of the error terms is not constant across all levels of the independent variables, as defined by Richard Williams (2020). Furthermore, Gujarati (2003) states that when the variances of the disturbances in the regression model are similar, heteroskedasticity is present. Heteroskedastic implies that the error term among the values of indicator for branchless banking services do not have a constant variance. Heteroskedasticity was tested via the Modified Wald test. The null hypothesis posits that the error term exhibits constant variance, whilst the alternative hypothesis contends that the error term does not. If the estimated p-value at the 0.05 level of significance is higher than the significance value, the null hypothesis is rejected.

3.9 Ethical Consideration

Ethical considerations refer to moral guidelines that direct the research process. It directs the researcher's actions and interactions with the information sources he or she plans to consult. The ethical consideration ensures strict adherence to the research conduct and principles, which is essential in attaining the study objectives. Before fieldwork, the researcher acquired authorization letter from Kenyatta University and thereafter applied for a research permit from NACOSTI. Once the permit has been granted, the managing director of the 38 commercials were notified by the researcher in writing. Additionally, the responders were guaranteed data secrecy of data and protection of individual banks' identity within the course of the study.

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter consists of the presentation of the research findings as well as the discussions. The chapter is divided into sections first the descriptive analysis results, then diagnostic test results followed by correlation analysis and then the multiple regression analysis. Finally, the research hypotheses test results are presented.

4.2 Descriptive Analysis

The results presented in Table 4.1 show the summary of the data collected for the research variables. The data is summarized through the mean, standard deviations and the minimum and maximum values.

Table 4.1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Value of ATM Transactions (billions)	266	988.36	337.943	511.105	1867.5
Value of Agency banking Transactions (billions)	266	32.753	8.827	19.321	48.137
Value of Mobile Transactions (billions)	266	216.16	225.666	.058	790.8
Value of Internet Banking Transactions (billions)	266	198.178	188.522	1.842	753.974
Total Value of Transactions	266	1435.445	749.769	561.143	3431.595
Total Loans in Default	266	732.9	261.6	282.4	1183.4
Total loans advance	266	6.1104	1.1829	4.0332	8.8142
Total Assets	266	12.0134	26.856	7.4866	17.3416

Table 4.1 results show that the mean of the value of ATM transactions was 988.36 billion Kenya shillings. The minimum value of ATM transactions was 511.105 and the maximum value was 1867.5 billion Kenya shillings. The value of agency banking

transactions ranged between 19.321 billion Kenya shillings and 48.137 billion Kenya shillings averaging at 32.753 billion Kenya shillings. The value of mobile banking transactions averaging at 216.16 billion Kenya shillings and ranged between 58 million Kenya shillings and 790.8 billion Kenya shillings. Internet banking averaged at 198.178 and the min value was 1.842 and max value was 753.974 billion Kenya shillings. The total value of transactions was ranging between 561.143 billion Kenya shillings and 3431.595 billion Kenya shillings.

The mean for the total value of transactions was 1435.445 billion Kenya shillings. Total loans advanced averaged at 6.1104 trillion Kenya shillings and the range was between 4.0332 trillion Kenya shillings and 8.8142 trillion Kenya shillings. Loans on default had a mean of 732.9 billion Kenya shillings and the range was between 82.4 billion Kenya shillings and 1183.4 billion Kenya shillings. The total assets ranged between 7.4 trillion shillings and 17.34 trillion Kenya shillings averaging at 12.01 trillion Kenya shillings.

4.3 Diagnostic Tests

Diagnostic tests to ascertain suitability of the data for multiple linear regression analysis were performed and the tests included test for multicollinearity, normality test and heteroscedasticity test.

4.3.1 Multicollinearity Test

Multicollinearity among the study variables was tested by the VIF test. Values of VIF that are above 10 indicate presence of multicollinearity. Table 4.2 exhibits the findings.

Table 4.2: VIF for Multicollinearity Test

	VIF	1/VIF
Online Banking Services	8.45	.118

Mobile banking Services	7.366	.136
ATM Services	7.363	.136
Agency Banking Services	3.634	.275
Mean VIF	6.704	.

The VIF value for the variable online banking services was 8.45. The VIF value for mobile banking services was 7.366, for ATM services was 7.363 and for agency banking services was 3.634. All these values were below 10, suggesting the absence of multicollinearity.

4.3.2 Normality Test

Shapiro wilk test was adopted to determine the normality of the data. Table 4.3 shows the findings.

Table 4.3: Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
Automated Teller Machine Services	266	0.899	19.262	6.903	0.000
Agency Banking Services	266	0.942	11.178	5.633	0.000
Mobile Banking Services	266	0.868	25.198	7.530	0.000
Online Banking Services	266	0.908	17.570	6.689	0.000
Financial Stability	266	0.983	3.289	2.779	0.003

The p values were found to be less than 0.05. Hence the data was described to be non-normal. To solve for this, data was transformed by finding the logs.

4.3.3 Heteroscedasticity Test

The Breusch-Pagan test was utilized to assess heteroscedasticity. Table 4.4 displays the findings.

Table 4.4: Breusch-Pagan Test Results

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of Financial Stability
chi2(1) = 1.16
Prob > chi2 = 0.2808

The findings showed that P value was 0.2808 >0.05. This implied that the null hypothesis of homoscedasticity was not rejected. Therefore, the data was homoscedastic.

4.4 Correlation Analysis

Pearson's correlation was utilized to ascertain the correlation between the study variables. The findings were as presented in Table 4.5.

Table 4.5: Matrix of Correlation

Variables	(1)	(2)	(3)	(4)	(5)
(1) Financial Stability	1.000				
(2) Automated Teller Machine Services	0.787	1.000			
(3) Agency Banking Services	0.660	0.025	1.000		
(4) Mobile Banking Services	0.745	0.075	-0.041	1.000	
(5) Online Banking Services	0.772	0.017	-0.078	0.049	1.000

The results showed that ATM services have a positive correlation with financial stability (r=0.787). Therefore, if the use of automated teller machine services increases, financial stability also increases. These findings agreed with Mukamunana and Shema (2019) whose findings established that there was a substantial correlation between the Bank of Kigali's financial success and its automated teller machine transactions. This

was however in contrast to Kamboh and Leghari (2016) who found that ATM were inversely correlated with bank profitability.

The results also showed that agency banking services and financial stability have a positive association (r=0.660). This meant that when the use of agency banking services is increased, financial stability would also increase. This was in line with Kanyore, Abdulkadir, and Kingi (2017) who found that agency banking and the financial success of listed commercial banks had a high positive correlation. The findings however contrasted those of Ndambuki (2016) who discovered a negligible negative correlation between Kenya's financial institutions' profitability and the amount of withdrawals and bill payments they made through agents.

Further, it was observed that mobile banking services and financial stability have a positive correlation (r=0.745). Therefore, with increased mobile banking services, financial stability will also increase. This contrasted with the results of Obadia and Kumungunyi (2022), which demonstrated a minor adverse link between the financial health of the six listed tier 1 financial institutions and mobile banking.

Finally, it was found that online banking services have a positive correlation with financial stability (r=0.772). This implied that when the use of online banking services is increased, financial stability also increases. This aligns with the results of Kenechukwu and Molokwu (2022), which indicated a favorable association between digital banking and financial stability.

4.5 Multiple Regression Analysis

To assess the research hypotheses, multiple linear regression analysis was done. The results were exhibited in Table 4.6.

Table 4.6: Multiple Linear Regression

Financial Stability	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Automated Teller Machines	.172	.035	4.94	0.00	.103	.24	***
Agency Banking services	.216	.102	2.11	.036	.014	.417	**
Mobile Banking services	.362	.08	4.51	0.00	.204	.52	***
Online Banking services	.558	.058	9.69	0.00	.445	.672	***
Constant	-.111	.033	-3.40	.001	-.175	-.047	***

Mean dependent var	0.122	SD dependent var	0.043
R-squared	0.816	Number of obs	266
F-test	288.723	Prob > F	0.000
Akaike crit. (AIC)	-1362.615	Bayesian crit. (BIC)	-1344.698

*** $p<.01$, ** $p<.05$, * $p<.1$

The R square was found to be 0.816 implying that ATM services, agency banking services, mobile banking services and online banking services explain 81.6% of variations in financial stability. The F statistics was 288.723 and P value was 0.000 inferring that the whole model was statistically significant.

The results showed that the coefficient for automated teller machine services was 0.172 which was statistically significant at 0.5% (p=0.000). This meant that services of ATMs have a favorable and statistically significant correlation with the financial viability of banks. This implied that financial stability is increased by 0.172 units when there is an increase in the use of ATMs services by one unit. This agreed with Bochaberi and Omagwa's (2021) whose findings showed that ATMs have an impact on Kenyan commercial banks' performance because they offer financial services at reasonable, convenient prices, which encourages client use and boosts bank profits and revenue. This however did not agree with Ngan and Hoang (2020) who found that ATMs implementation had no effect on those banks' financial success.

The research results revealed that the coefficient for agency banking services was 0.216, which was statistically significant at the 5% level (p=0.036). This meant that agency banking services had a positive and also statistically significant link with financial stability. Therefore, financial stability of banks is increased by 0.216 units when agency banking services are increased by one unit. This was in line with Mohamud and Warui (2021) who found that when agency banking, was increased, financial performance also increased. The findings were also in line with Wanalo, Mande, and Aketch (2020) whose findings demonstrated that the selected Kenyan commercial banks' financial performance is enhanced by the usage of agency banking. The findings also showed that the coefficient for mobile banking services as 0.362 and was statistically significant at 0.5% (p=0000). This suggested that the correlation between mobile banking services and financial stability was affirmative and statistically significant. An increment of one unit in mobile banking services enhances financial stability by 0.362 units. This concurred with Ngan and Hoang (2020) who found that mobile banking significantly and favorably impacted commercial banks' performance.

Finally, the coefficient for online banking services was found to be 0.558 and was statistically significant at 0.5%. This meant that the link between online banking services and financial stability was positive and statistically significant. Therefore, when online banking services is increased by one unit, financial stability increases by 0.558 units. This agreed with Mihaela, Bădîrcea, and Manta (2022) whose findings showed that the banking industry's financial performance was positively impacted by the rise in online banking usage. This also concurred with Ghose and Maji (2022) whose findings showed that commercial banks' total profitability grew with the volume and value of their online banking.

The regression analysis confirms that the model is statistically significant, as evidenced by an F-statistic of 288.723 and a p-value of 0.000, indicating that the combined effect of ATM services, agency banking, mobile banking, and online banking significantly explains variations in financial stability. Additionally, the model demonstrates a strong explanatory power with an R^2 value of 0.816, suggesting that 81.6% of the variability in financial stability is accounted for by these digital banking services. These results affirm the model's overall robustness and its relevance in assessing the impact of branchless banking channels on financial stability.

4.6 Hypotheses Testing

The hypotheses were tested at 5% level of significance. P values below 0.05 indicated that the null hypothesis should be rejected and p values >0.05 meant that the null hypothesis should not be rejected.

$H0_1$: Automated teller machines services have no substantial effect on financial stability of Kenya commercial banks

Automated teller machine services variable was regressed against financial stability as the dependent variable. The P value was 0.000<0.05. Following this finding, the null hypothesis that Automated teller machines services have no substantial effect on financial stability of Kenya financial institutions was rejected. The alternative hypothesis that automated teller machine services have a statistically significant effect on financial stability was adopted.

$H0_2$: Agency banking services have no substantial effects on financial stability of Kenya commercial banks

To test this hypothesis, agency banking services variable was regressed against financial stability and the p value was found to be 0.036<0.05. To this, the null

hypothesis that Agency banking services do not substantially effects on financial stability of Kenya commercial banks was rejected. The alternative hypothesis was adopted that agency banking services have a statistically significant effect on financial stability.

$H0_3$: Mobile banking services have no substantial effects on financial stability of Kenya commercial banks

The multiple linear regression analysis was used to test for this hypothesis where mobile banking services was the independent variable and financial stability the dependent variable. P value was found to be 0.000<0.05. This led to the null hypothesis being rejected suggesting that mobile banking services significantly impact the financial stability of financial institutions in Kenya. The alternative hypothesis positing a statistically significant effect of mobile banking services on financial stability was not rejected.

$H0_4$: Online Banking services have no substantial effects on financial stability of Kenya commercial banks

This hypothesis was tested through the multiple linear regression analysis where online banking services was the independent variable and the dependent variable was financial stability. The findings showed that the p value was 0.001<0.05. Thus the null hypothesis that online banking services have no substantial effects on financial stability of Kenya commercial banks was rejected. The alternative hypothesis that there is a statistically significant effect of online banking services on financial stability was adopted.

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter summarizes the study findings and offers the conclusions drawn from them. Recommendations for practice, policy, and further research are laid out. The research aimed to explore the impact of Branchless Banking services on the financial stability of Kenyan financial institutions. The precise goals were: ascertaining the effects of ATM services on the financial stability of Kenyan banking institutions; to assess the effects of Agency Banking services on the financial stability of Kenyan banking institutions; assessing the effects of Mobile Banking services on the financial stability of Kenyan banking institutions; and to assess the effects of Online Banking services on the financial stability of Kenyan commercial banks. Secondary data were gathered from annual supervision reports of the CBK, bank surveys conducted from 2016 to 2022, and the official websites of individual banks. The data were analyzed utilizing descriptive statistics, correlation, and multiple regression analysis.

5.1 Summary of Findings

The first research objective was to ascertain the effects of ATM services on financial stability of Kenya financial institutions. ATMs services was measured by dividing the value of ATM transactions by the total value of transactions and financial stability was calculated as total loans on default divided by total loans advanced. The findings of correlation analysis showed that ATM services had a positive correlation with financial stability. Similarly, multiple linear regression analysis revealed a beneficial and statistically significant connection between ATM services and financial stability.

The second objective was to analyse the impact of Agency Banking services on financial stability of Kenya commercial banks. Agency banking services were assessed by dividing the value of agency transactions by the overall value of transactions, while financial soundness was determined by the ratio of total loans in default to total loans disbursed. Correlation analysis results revealed a positive correlation between agency banking services and financial stability. Multiple linear regression demonstrated a favorable and substantial correlation between agency banking services and financial stability.

The third objective aimed to establish the effects of mobile banking services on financial stability of Kenya financial institutions. To measure mobile banking services, the value of mobile transactions was divided by the total values of transactions while financial stability was obtained by dividing total loans on default divided by total loans advanced. The research findings demonstrated a favorable link between mobile banking services and financial stability. Multiple linear regression similarly demonstrated a favorable and substantial correlation between mobile banking services and financial stability.

The final objective was to evaluate the effects of online banking services on financial stability of Kenya commercial banks. The efficacy of online banking services was assessed by the ratio of internet transactions to the overall value of transactions. Financial stability was assessed by the percentage of defaulted loans to total loans issued. The correlation research indicated a favorable relationship between online banking services and financial stability. The results of multiple linear regression indicated a favorable and statistically significant correlation between online banking services and financial stability.

5.2 Conclusion of the study

The first objective results indicated a favorable and strong correlation between ATM services and financial stability. To this, the research suggests that ATM services have a favorable and considerable influence on financial stability. Therefore, an increased use of ATM for transactions will result in improved financial stability of banks. The more customers use ATM for money transactions, the more the commercial banks become financially stable.

The results of the second goal demonstrated a substantial and beneficial correlation between agency banking and financial stability. The research finds that agency banking services positively impact the financial stability of financial institutions. The augmented use of agency banking services would lead to enhanced financial soundness of financial institutions. Financial institutions may enhance their financial soundness by augmenting the utilization of agency banking in transactions.

The findings also validated a favorable and substantial impact of mobile banking services on financial stability. The research came to a conclusion that mobile banking services positively impact the financial stability of financial institutions. Therefore, increased use of mobile banking services will result in increased financial stability of commercial banks. Banks can therefore increase the use of mobile banking transactions in order to improve their financial stability.

Finally, the research demonstrated a substantial favorable correlation between online banking services and financial stability. The research concluded that internet banking services positively impact the financial stability of financial institutions. Thus, increased use of online banking services in transactions would result in increased

financial stability of commercial banks. Banks would therefore increase financial stability by increasing the amount transacted through online platforms.

5.3 Recommendations for Policy and Practice

The study recommends that financial institutions should implement measures that will lead to increased use of branchless services such as ATM banking, agency banking, mobile banking and online banking in order to improve their financial stability. Commercial banks can do this by providing awareness programmes to their customers on the need to make use of branchless banking services. Commercial banks are also encouraged to reduce costs associated with branchless banking services in order to encourage customers to make use of these services.

Regarding policy, the study recommends that policymakers on matters pertaining to banking should make policies that aim at increasing the use of branchless banking services. They should formulate policies that will make it easier for commercial banks to offer branchless banking services to their customers. Policy makers should aim at making policies that will enable commercial banks to expand the customer base for branchless banking such as polices related to internet access and mobile phone use that will allow all customers to have access to branchless banking options.

5.4 Recommendations for Further Research

The objective of the research was to ascertain the impact of Branchless Banking services on the financial stability of Kenyan financial institutions. The research makes recommendations that a similar study be conducted among other players in the financial sector such as SACCOs and other MFIs. Other studies can assess how branchless banking services may affect other importance aspects of a bank such as financial performance.

5.5 Limitations of the Study

The main objective of the research was to ascertain the effects of branchless banking on financial stability of financial institutions in Kenya. The research was limited to its scope since it only focused on commercial banks which is part of the banking sector and not the banking industry as a whole. Due to confidentiality and intense competition among financial institutions, not all commercial banks publish their financial statement, only those listed at the NSE do publish and disclose their financial information. Therefore, the researcher relied on audited financial statement and other published financial document to obtain necessary information for the study. The study faced challenges of accessing sensitive data which banks feel uncomfortable due to competition in the banking industry. Commercial banks were assured that the collected data would be secure and used mainly for academic purpose. That the researcher would not release any part of data collected to unauthorized persons.

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APPENDICES

Appendix I: Data collection Sheet

Year	Value of ATMS transactions	Value of agency banking transactions	value of mobile banking transactions	Value of internet banking transactions	Total value of transactions	Total Loans in Default	Total loans advanced	Total assets
2016								
2017								
2018								
2019								
2020								
2021								
2022								

Appendix II: List of Commercial Banks

1. ABSA Bank Kenya
2. Access Bank
3. African Banking Corporation
4. Bank of Africa Kenya
5. Bank of Baroda (K)
6. Bank of India
7. Citibank N.A Kenya
8. Consolidated Bank of Kenya
9. Co-operative Bank of Kenya
10. Credit Bank Limited
11. Development Bank of Kenya
12. Diamond Trust Bank Kenya
13. DIB Bank (Kenya)
14. Ecobank Kenya
15. Equity Bank Kenya
16. Family Bank
17. First Community Bank
18. Guaranty Trust Bank (K) Ltd
19. Guardian Bank
20. Gulf African Bank
21. Habib Bank
22. I & M Bank
23. Kingdom bank
24. KCB Bank Kenya
25. Mayfair Bank
26. Middle East Bank (K)
27. National Bank of Kenya
28. NCBA Bank
29. M-Oriental Bank
30. Paramount Bank
31. Prime Bank
32. SBM (K)
33. Sidian Bank
34. Spire Bank)
35. Stanbic Bank Kenya
36. Standard Chartered Bank Kenya
37. UBA Kenya Bank
38. Victoria Commercial Bank

Source: Central Bank of Kenya (2022)

Appendix III: Authorization Letter from Kenyatta University

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 4150

Internal Memo

FROM: Executive Dean, Graduate School

DATE: 27th August, 2024

TO: **Momanyi Moraa Lucy**
C/o Accounting and Finance Dept.

REF: D53/OL/KSU/21607/2020

SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL

This is to inform you that Graduate School Board at its meeting of 14th August, 2024 approved your Research Project Proposal for the M.B.A Degree Entitled, **"Branchless Banking Services and Financial Stability of Commercial Banks in Kenya."**

You may now proceed with your Data Collection, Subject to Clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking and progress report Forms per semester. The Forms are available at the University's Website under Graduate School webpage downloads.

Also, please ensure that you publish article(s) from your project before submitting it to Graduate School for examination as per the Commission for University Education and Kenyatta University guidelines.

Thank you.

ANNBELL MWANIKI
FOR: EXECUTIVE DEAN, GRADUATE SCHOOL

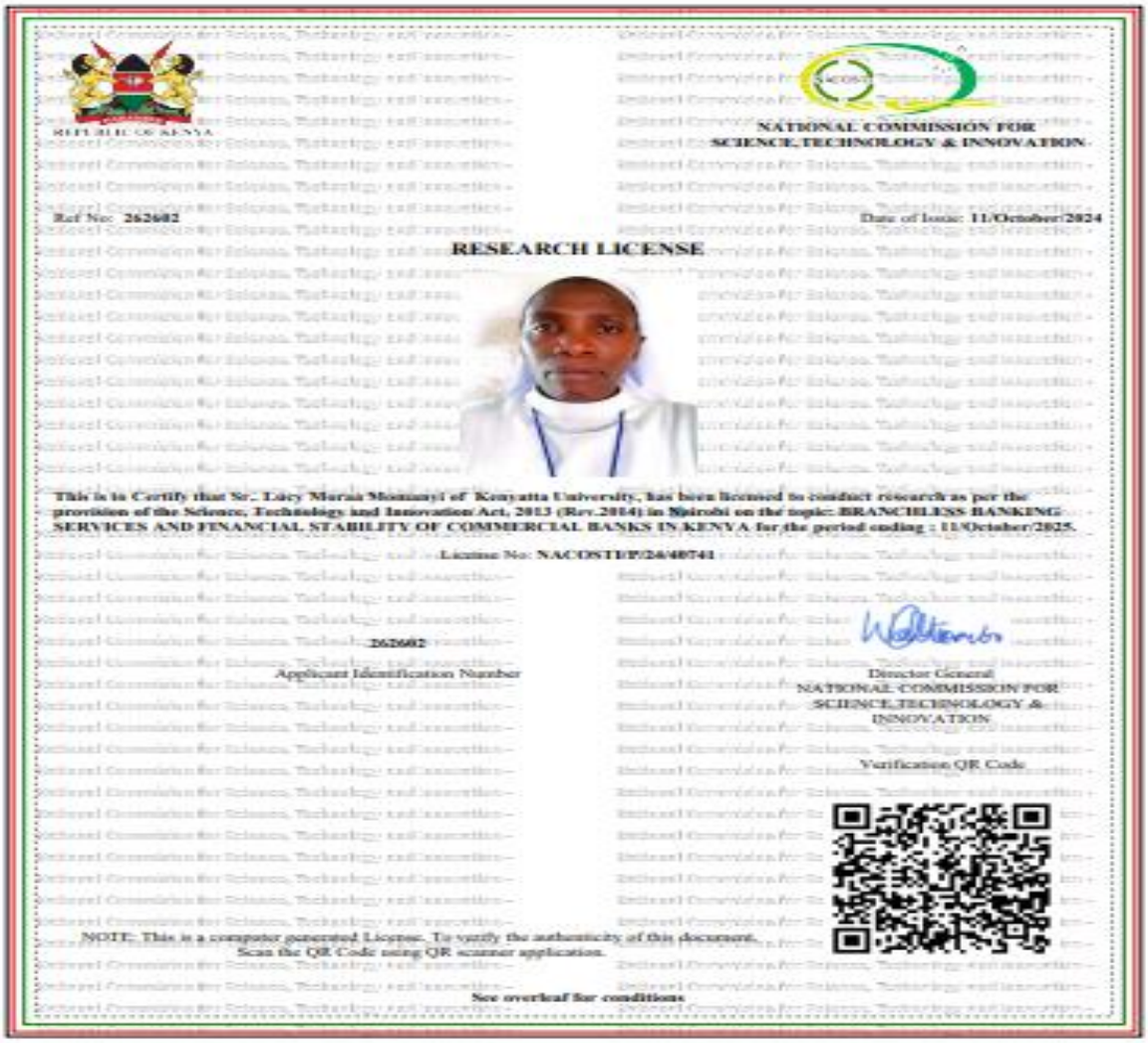
c.c. Chairman, Accounting and Finance.

Supervisors:

1. Dr. John Mungai
   C/o Department of Accounting and Finance
   Kenyatta University

AM/mo

Appendix IV: Research Permit



REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 262682

Date of Issue: 11/October/2024

RESEARCH LICENSE

This is to Certify that Sr. Lucy Muraa Mbonanyi of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: BRANCHLESS BANKING SERVICES AND FINANCIAL STABILITY OF COMMERCIAL BANKS IN KENYA for the period ending : 11/October/2025.

License No: NACOSTI/P/24/40741

262682

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

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See overleaf for conditions