AGENCY BANKING AND PROFITABILITY OF COMMERCIAL BANKS LISTED AT THE NAIROBI SECURITIES EXCHANGE, KENYA

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DECLARATION

Declaration by Student

This is my own novel piece never presented in a higher learning institution for degree award

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DEDICATION

To friends who supported me

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ABBREVIATIONS

AB	**:**	Agency Banking
CBK	**:**	Central Bank of Kenya CMA Capital Market Authority
CBs	**:**	Commercial Banks
FP	**:**	Financial Performance

OPERATIONAL DEFINITION OF TERMS

Terms	Definitions
Agency banking fee	These are charges that listed commercial banks in Kenya charge customers in accessing financial services through agency banking and they represent revenue to the bank.
Agency banking liquidity	It is the steady amount of income generated from agency banking and it is measured in this study by % of cash generated through agency banking
Agency banking market share	It is the total customer base accessing and transacting through agency banking. It is measured in this study as the % market share through agency banking
Agency banking perceived risks	These are operating risks that adversely affect the operations of the agency banking avenues. It is measured through operational risk of agency banking based on cost income ratio
Agency banking	This is aimed at enhancing accessing to banking services among customers which in turn is determined by agency banking liquidity, fee, market share and related operational risks in the present study
Bank size	This is the value assets in a bank. Logarithm of assets will be the measure of this variable
Profitability	This is one of the monetary goals and objective among listed banks in Kenya. It is measured by returns generated by these banks on their equities

ABSTRACT

Listed commercial banks in Kenyan context are encountering concern in regard to their profit trajectory. This is supported by decreasing Return of Equity in the period 2018-2022. Thus, the study aimed at determining implication of agency banking liquidity, fee, market share and perceived risks with age as a moderator in relation to profit trend. The transaction cost theory, market power theory and public interest rate theory guided this study. Key empirical inquiries were reviewed to suggest gaps and development of conceptual framework. The paradigm adopted was positivist supported by explanatory design. The study adopted direct regression model and moderation regression model to achieve the analysis of the findings. A total of twelve listed banking entities were targeted on the period 2019-2023. Insights were obtained from auxiliary sources and analysis was through descriptive and inferential tools using SPSS software. The analysis started with diagnostic tests that validated the regression model. Key ethical concerns were adhered during data collection in this study. The analysis was that agency banking liquidity, fee, market share and perceived risks all exert significant implication on profit trend moderated by age. It was concluded that agency banking is a core element that drives profit trend of an institution. Managers and policy makers working with commercial banks in Kenya should implement a robust risk-based management framework to mitigate against agency banking risks for greater profits.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Profitability has remained a global challenge especially in the context of commercial banks. Statistics on global banking industry indicate average global banking sector ROE of 2.28 per cent compared to banking sector ROE average in the European Union member countries of 5.552 per cent respectively (World Bank, 2023). This trend provides sharp evidence that commercial is facing challenges as far as their profitability which require a study to establish possible issues. The same case has been evident in Kenya.

In addressing the above identified concerns about their profitability, most commercial banks have resorted to embrace agency banking. Indeed, agency banking has emerged a critical alternative revenue source that can allow commercial banks to compete effectively and generate or sustain the amount of revenues generated from operations (Ringo, Mayala & Amos 2022). In Bangladesh for instance, there is an urgent need for commercial banks in the country to invest most of the resources at their disposal into increasing the number of mobile agents (Alam, Bhowmik & Bhowmik, 2020). These efforts should entail progress to come up with aggressive deposit mobilization and loan disbursal to customers through agency banking for optimal utilization of these agent banking services by customers of banks in the country (Alam et al., 2020). Brazil is one of the countries in the world with the largest network of mobile banking agents. Pickens (2023) estimate the number of bank agents in Brazil at 780,000 across the entire country at large.

The Democratic Republic of Congo (DRC) has played through effective agency liquidity management; bank agents can lay an instrumental role in provision of basic financial

related services among majority of the urban poor population in the country (Cull, Gine, Harten, Heitmann & Rusu, 2018). In Rwanda, commerce banks were urged to put in place safe take serious considerations of the safety concerns regarding agency banking transactions with the public regarded as the most vulnerable population towards this risk perceived to be linked with agency banking (Emmanuel, 2020). Uganda has made significant progress as far as agency banking is concerned and that therefore efforts have signified with this reason, Kamya (2022) raised a more need for the Central Bank of Uganda to put in place more robust agency banking regulations to enhance this revenue flow among commercial banks.

Locally in Kenya, Mwangi and Kalui (2022) indicated that efforts should be made by managers to adopt agency banking while increasing the number of agents relying on the available infrastructures s like for the sake of credit unions. According to Dzombo, Kilika and Maingi (2017), positive returns in terms of ROE and ROE among Kenya's commercial banks can only be registered through rapid and heavy investments ion agency banking channels by commercial banks. Oburu (2018) said that reiterated that the CBK should make efforts to reduce the fees and costs incurred by customers in accessing agency banking services and the network coverage as well as reduction in operational costs related with the use of Agency Banking.

Size of entity is instrumental in shaping how agency banking affects profiteering of the banks (Özcan & Ersoy, 2022). Hence, three important variables of focus in this proposed study will be agency banking, bank size and profitability. Although bank size has been used as a moderator variable in some of the reviewed studies (Rahman & Yilun, 2021),

literature linking the same as a moderator when in the agency banking and profitability nexus has largely remained scanty.

1.1.1 Agency Banking

Agency Banking is a model that allows customers to access withdrawal services, deposit services, balance checking and loan repayment services through other third parties who run some designated financial services on behalf of the parent bank (Alam et al., 2020). An agent bank cannot handle deposits or loan application process in their own name but rather, in the name of the parent and principal bank (Dzombo et al. 2017). The most key financial services that bank agents are permitted to facilitate on behalf of their principal banks including facilitating deposits and withdrawals, allowing customers to pay for their utility bills or making of balance inquiries by customers. The forces that propelled and supported rapid growth of agency banking since its inception in Brazil was the desire by banks to decongest and free their banking halls (Mwang'onda, 2020). From Brazil as its initial origin, agency banking latter spread to parts of Peru, Colombia, Mexico, Pakistan and Philippines before ending up in Africa and in Kenya at long last (Ouma, 2013).

Scholars on agency banking have yield inconsistent measurements like agency banking fee, its market share, volume of transactions, perceived risks associated with agency banking as common indicators used to measure agency banking (Bongomin, Akol-Malinga, Amani-Manzi & Balinda, 2023). Agency banking liquidity is the degree which banks are in position of attaining their short-term obligations and has maintenance of enough liquidity position (Ringo, Mayala & Amos 2022). This is in efforts to covering potential payment or withdrawal demands from the customers of the bank. Agency banking liquidity can further be considered as the total fund amount allocated by the bank for

making settlement processes in systems of payment. Agency banking liquidity is also viewed as the ability of the bank to set aside and allocate adequate cash aimed at meeting the daily withdrawal and deposit requests of customers (Ndirangu & Kimani, 2022).

Agency banking fee are the charges and expenses incurred by customers striving to utilize agency baking services. While this fee is regarded as a cost on behalf of the customer, it is a source of revenue for commercial banks (Kustina, Dewi, Prena & Suryasa, 2019). Commercial banks do classify this agency banking fee in terms of non interest incomes that when optimized can maximize their profitability hence financial performance (Mwangi & Kalui, 2022. Various services attract different agency banking fee. These services include account balance inquiry, checking of min statements and in payment of bills. These fees are income for the bank and they are used to enhance profitability when maximized (Okayo, 2022)

Agency banking market share is regarded in terms of the users of the agency banking model and the volume of transactions moved by customers through agency banking (Alam, Bhowmik and Bhowmik, 2020). Thus, agency banking market share would increase whenever there is an increase in the number of users of agency banking as well as when the volume moved through AB by customers also increases. Any increase in the number of users of agency baking would translate to growth in profits generated by the firm. The most important measure of this construct is the percentage of market share through agency banking (Mwariri & Awuor, 2020).

Agency banking systems is associated with a number of perceived risks by customers and its users. In fact, security concern has been identified as one of the barriers towards slow utilization of agency banking channels by customers particularly in Sub-Saharan countries.

Some of the perceived risks that are linked with the use of agency banking stem from concerns about safety of the transactions and operating risks. Operational income against operating expenses incurred during transaction of agency banking is an important measure of operating risk linked with agency banking (Kiplagat, 2020).

1.1.2 Profitability

Profitability is the foundation of existence and operations of firms, especially the for-profit enterprises. It is defined as the ability of an institution to generate positive returns that contribute towards maximization of wealth of owners. This definition implies the key role and obligation of the managers of an institution as that of maximization of the wealth of its owners (Alam, Bhowmik & Bhowmik, 2020). Thus, profitability is the only way through which owners, who are shareholders can be assured that their wealth is being fully maximized by the managers of the institution. It is a quantitative process that relies on information of financial statements published by the firm to calculate some ratios that help in interpreting the overall health of the institution in terms of profitability (Dzombo, Kilika & Maingi, 2017).

Different measures have been documented for measuring profitability of the firm; the most common one is the use of ratios (Kiplagat & Kalui, 2020). Key ratios applicable in measuring profitability include ROA, ROE and ROI. Tobin Q, especially in studies entailing market conditions of the firm, has also been identified as the key measure of profitability of the firm (Kamya, 2022). In the present study, profitability will be measured using ROE, whose metrics include the net income and total equity of the institution. The reason for utilizing ROE as a measure of profitability is because it captures directly both

the net income and equity values that are critical for an institution like commercial bank. Listed commercial banks have recorded a worrying trend in their profitability for the last 5-years on the basis of their ROE as shown in Table 1.1 below:

Table 1.1: Kenyan Banks' Profitability on the Study Period

Year	**2018**	**2019**	**2020**	**2021**	**2022**	**Average**
ROE (%)	14.39%	15.16%	8.21%	14.29%	13.72%	13.15%

Source: CBK (2023)

From Table 1.1, it is evident that ROE has been dropping. For instance, while 2018 and 2019 represented years when ROE had stabilized at 14.39% and 15.16% respectively, the same dropped to as low as 8.21% in 2020. On the overall, the value of ROE averaged at 13.15% across the 5-year period which unfavorably compared with similar average rates of 20.15% in South Africa (IMF, 2023). Although COVID-19 was in place during this time, that alone could not be blamed as the reason behind woes in profitability.

1.1.3 Agency Banking and Profitability

The link between agency banking and profitability has been explored in detail in different contexts. Mwangi and Kalui (2022) documented existence of positive nexus between these two variables. This was further supported by Kamya (2022) who also indicated existence of direct link between agency banking and monetary performance of an institution. On the contrary, Dzombo et al. (2017) identified that AB has a significant but negative implication on FP of an institution. Alam et al. (2020) shared that the volume of deposits and number of agents has direct and significant implication on monetary performance. On the other hand, the volume of withdrawals as well as loan deposits moved through agency banking was found to negatively impact monetary performance of an institution.

Emmanuel (2020) argued that agency banking has positive and significant implication on non-financial performance of an enterprise. Cull, Gine, Harten, Heitmann and Rusu (2018) said that sound AB liquidity management and branding are strongly linked with agent activity positively impacting on monetary performance. Ringo, Mayala and Amos (2022) indicated that deposits moved through agency banking have direct implication on monetary performance of the bank. Oburu (2018) established that agency banking services and the market share were positively linked with each other. Ndirangu and Kimani (2022) established agency banking to be significant.

1.1.4 Bank Size

Bank size is the value of assets possessed by a financial institution that support the daily operations. Relatively small banks do face a number of disadvantages as compared to relatively stable and older financial institutions. According to Rahman and Yilun (2021), profitability of the firm decreases with a decrease in its size. Empirical evidence by Silva et al. (2019) and Mishra et al. (2021), and Arora (2022) provide indication that financial performance of the institution increases with its size. The growing body of literature indicate that bank size is a moderator variable, these include Kirimi, Kariuki and Ocharo (2022), Gathogo (2023) as well as Chibole, Lyani and Maniagi (2022) and Jemima (2018) among other studies.

1.1.5 Kenyan Commercial Banks

Commercial banks do mobilize savings from customers in form of deposits and utilizes the same to advance loans to customers for profit. In this manner, banking entities play a financial intermediation role in a country at large (Riro & Mbuva, 2023). Some of the most important services that are provided through commercial banks include facilitating

telegraphic transfer of money, payment of standing order transactions, engaging in foreign related transactions and supporting international trade through credit provision as well as investment management (Omete, 2023).

There are 12 listed banks in Kenya regulated by CBK (Baituti & Ngaba, 2022). These listed commercial banks in Kenya do vary in their sizes in that some like NCBA Group do represent huge volume of assets with billions of customer deposits (Özcan& Ersoy, 2022). Thus, focusing on profitability of institutions of such magnitude is among the best mechanisms of safeguarding the deposits of customers.

1.2 Statement of the Problem

Listed commercial banks in Kenya are currently facing problems of the profitability (Abdi & Mang'ana, 2022). For instance, these banks registered the overall ROE that averaged at 13.15% across the 5-year period (2018-2022) (CBK, 2023) which unfavorably compared with similar average rates of 20.15% in South Africa (IMF, 2023). Implication is that most of the listed banking entities are not optimizing on their equity portions in their balance sheets (CBK, 2023). Important to note is the fact that persistent concerns about profitability of these institutions without taking necessary actions to salvage the situation would in long run results into inherent collapse and customers would lose significant promotion of their deposits.

Inquires in place include Alam et al. (2020) that focused on Bangladesh analyzing the implication of agency banking and monetary performance of commercial banks where withdrawals and loan disbursements through agency banking were found to have negative implication on financial performance. Cull et al. (2018) placed emphasis on Republic of

Congo determining agency banking within an underdeveloped sector of finance. It was shown that agent banking is an effective mechanism of facilitating the provision of financial services to customers. In Uganda, Kamya (2022) evaluated agency banking and the nexus with FP using Centenary Bank as the case and significant nexus between variables was registered. In Kenya, Mwangi and Kalui (2022) conducted a review of agency banking and monetary performance of commercial banks where positive and significant interplay was noted in these two variables. Ndirangu and Kimani (2022) covered microfinance banks in Kenya and determined the link between agency banking and their performance where moderate and significant positive relationship was reported in the variables.

However, the aforementioned studies like Alam et al. (2020 were conducted in Bangladesh and not in Kenya hence contextual gap. Other studies like Kamya (2022) adopted case study approach where a single bank was covered thus creating methodological gap. The study by Ndirangu and Kimani (2022) covered microfinance banks and not commercial banks with dependent variable being performance in general away from profitability specifically and this create contextual gap for the current study.

1.3 Objective of the Study

This section includes both general objective and specific objectives.

1.3.1 General Objective

The general objective of the study is to establish the effect of agency banking on profitability on commercial banks listed at Nairobi Securities Exchange, Kenya.

1.3.2 Specific Objectives

(i) To establish the effect of agency banking liquidity on profitability of commercial banks listed at Nairobi Securities Exchange, Kenya.

(ii) To assess the effect of agency banking fee on profitability of commercial banks listed at Nairobi Securities Exchange, Kenya.

(iii) To establish the effect of agency banking market share on profitability of commercial banks listed at Nairobi securities Exchange, Kenya.

(iv) To analyze the effect of agency banking perceived risks on profitability of commercial banks listed at Nairobi Securities Exchange, Kenya.

(v) To determine the moderating effect of bank size in the relationship between agency banking and profitability of commercial banks listed at Nairobi Securities Exchange, Kenya.

1.4 Research Hypotheses

The study tested the following hypotheses:

H_{01}: Agency banking liquidity has no statistically significant effect on profitability of listed commercial banks in Kenya .

H_{02}: Agency banking fee has no statistically significant effect on profitability of listed commercial banks in Kenya .

H_{03}: Agency banking market share has no statistically significant effect on profitability of listed commercial banks in Kenya .

H_{04}: Agency banking percieved risks has no statistically significant effect on on profitability of listed commercial banks in Kenya

H_{05}: Bank size does not statistically significantly moderate the relationship between agency banking and profitability of listed commercial banks in Kenya

1.5 Significance of the Study

Managers may be provided with a strategic tool that would promote the adoption and enhancement in agency banking to improve on profitability. The study may help marketing mangers working in listed commercial banks in Kenya to have in place robust marketing efforts to drive utilization of agency banking. Future scholars engaged in related studies will have an opportunity of reviewing information detailed in herein.

1.6 Scope of the Study

Agency banking, bank age and profitability as independent, moderating and dependent variables were explored as variables in this study. The specific aspects of agency banking covered included agency banking liquidity, agency banking fee, agency banking market share as well as agency banking perceived risks. The study was conducted among 12 listed commercial banks in Kenya. The reason for selecting up listed commercial banks is because of their persistent erosion in their returns on equities in the last 5 years signaling challenges with their profitability. Information from auxiliary sources was adopted in this inquiry. The justification of adopting secondary data was because it was publicly available given that banks in question were the listed ones. The study covered a five year period 2019-2023. The justification of selecting this period was because it was marked with significant developments like rapid adoption of technology like PesaLink in the banking sector as well as the same period was when COVID-19 heightened. The study was interested to link such developments with the trend in profitability.

1.7 Limitations of the Study

Information from auxiliary sources was gathered from publication of the respective banks as well as reports published by CBK. However, the limitation prone to secondary data as a source of information in a study is that it exists in already documented form and hence not first hand. Any possible error that might have been committed at the data entry stage during publication of these reports would also be transferred during analysis of the findings and this may compromise the equality of the outcome. However, in overcoming this limitation, data was compared from different sources to determine accuracy before being utilized to generate insights.

1.8 Organization of the Study

The first chapter provides basis for other sections of the work. Relevant theories and past empirical studies are addressed in second chapter. The methodologies are addressed in the study, the methodologies covering design, participant's ad gathering of insights besides the ethical issues are captured in chapter three. The findings from analysis and discussions are set out in chapter four while summarization and conclusion, recommendations and areas requiring further inquiries pointed out in the fifth chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 introduction

Past inquiries and theories informing the study variables as per the objectives are covered here. It also details review of previous empirical inquiries.

2.2 Theoretical Review

The theoretical reviews included Transaction Cost theory, Market Power Theory and Public Interest Theory of Bank Regulation,

2.2.1 Transaction Cost Theory

Coase (1937) developed this theory arguing that some expenses are incurred in running some key operations. Thus, a number of views have been expressed as far as these transaction costs are concerned. For example, Cuypers, Hennart, Silverman and Ertug (2021) regarded them as expenses which are incurred when running an economic system. Bel and Sebő (2021) viewed them as expenses met when negotiations are being done especially in markets involving various participants. People and enterprises operate as established institutions which are created with aim of countering these costs (DeMiguel, Martin-Utrera, Nogales & Uppal, 2020).

Transactional costs are connected with how allocation of resources is done within markets (Kano & Verbeke, 2019). There exists market failure in the event that transaction costs are too high in the market such that they cannot be sustained. The costs that are met in communication and sharing of information are key elements of transaction costs (Coase,

1960). According to Altinay and Taheri (2019), transaction cost exists because of high degree of opportunism that different people have.

This theory determined how agency banking contributes towards reduction in transaction costs for superior profitability of banks. Thus, the theory underpinned the second objective variable developed in the present study.

2.2.2 Market Power Theory

Bain (1951) was the proponent of this theory and it argues that market power increases profits generated by monopolies. The critical measure of market power as per this theory is market concentration. This is because highly concentrated markets are characterized by high level of market imperfection (Punt & Rooij, 2001). In this theory, an enterprise with high market share is verified (Nkegbe & Yazidu, 2015). The theory is premised on account that highly concentrated markets provide opportunity for banks to generate more supernormal profits through collusion that arises from products that are differentiated in nature (Mirzaei, 2012).

It was assumed in this theory that concentrated markets are characterized by a lot of imperfections (Punt & Rooij, 2001). This theory informed the third objective which is agency banking market share and its effect on profitability.

2.2.3 Public Interest Theory of Bank Regulation

This is an economic theory based on regulation that was first developed by Pigou (1932). According to Pigou (1932), public interest theory holds that regulations were meant to protect the interest of the society as a whole rather than the regulators involved in the formulation. This can be implied in the study where the CBK formulates regulations in

order to protect the public interest. However, in the banking sector, the public interest is accrued to a socially efficient allocation of resources which minimize variance and maximize output as well as perform other functions it is charged with effectively (Levine, 1997). The public interest theory categorizes the interest groups into two; i.e. regulated firms whose aim is to maximize returns as well as consumers who aim at benefiting from the goods and services at a lower rate. It is due to these contradicting interests of both the regulated firms and the customers that call for government interference as a neutral arbiter since the market is assumed to be full of inefficiencies and it was cost less for the government to enhance regulations (Posner, 1974). In this aspect, the role of the central bank cannot be neglected in responding to the demand of the public (banks &customers) in order to correct the inefficiencies, market failures and unfair market practices (Posner, 1974).

This theory perspective of protecting a social group or a sub class of the public was heavily criticized by Stigler (1971) who asserted that regulation is for the industry and is designed primarily to benefit it. The other critic on the public interest theory was by Posner (1974), who indicated positive transaction costs associated with government regulations such as personnel and buildings therefore denying his earlier assumption. According to Posner (1974), the empirical evidence showed a surprising performance on the regulatory performance, he overemphasized that public interest theory of regulation considers regulation to be created for public purposes but are then mismanaged thus making it difficult to achieve the primary objective. The study is positioned towards enhancing regulatory management practice where a real regulation reform calls for introduction of culture of regulatory reform experimentation and evaluation (Greenstone, 2009). Public

interest theory is aligned with the study since it explains the origin of the regulations, according to the theory regulation serves the role of correcting market failures such as the increased nonperforming loans in the Kenyan banking sector.

This theory lays the foundation and recognizes the need to have in place prudential regulations so that conduct of commercial banks is regulated. Hence, the theory underpinned the independent variable perceived agency banking risks.

2.3 Empirical Literature Review

2.3.1 Agency Banking Liquidity and Profitability

Ombongi (2021) conducted an analysis of the implication of agency as well as mobile banking on levels of liquidity of banks in Kenya. The design adopted was descriptive in nature and target population was 39 institutions. The horizon covered a period of 5 years. After data gathered had been processed, it was shown that capital adequacy ratio greatly affected financial performance. However, this study create conceptual gap in that the dependent variable was liquidity and not profitability. Bongomin, Akol-Malinga, Amani-Manzi and Balinda (2023) conducted an analysis of mobile money banking and its implication on the poor ad unbanked population in Sub-Saharan Africa. The analyzed findings were that agent liquidity enhanced use and access to mobile money services by 27% in spurring financial inclusion to the poor population.

Mazambani, Rushwaya and Mutambara (2018) did an analysis of financial inclusion with more focus on disrupted liquidity and redundancy of mobile money agents in Zimbabwe. The study aimed at determining the cash liquidity concerns in Zimbabwe and gathering of information was aided by interviews. It was noted that restrictions were in place linked

with money in a cashless economy. This study creates contextual gap by focusing on Zimbabwe and not in Kenya.

2.3.2 Agency Banking Fee and Profitability

Kustina, Dewi, Prena and Suryasa (2019) studied the effect of branchless banking on profitability with emphasis on banks in Indonesia. Path analysis guided the processing of the gathered information. The findings were that branchless banking had no significant connection with third party funds in number. The study adopted path analysis while ordinary least square will be adopted in the present study during data processing. In an inquiry by Nyambura (2019), the philosophy adopted was positivist and 51 small firms were sampled. This study was done among SMEs while listed commercial banks in Kenya were explored in the present study.

Nyota and Muturi (2019) determined the effect of agency banking on monetary of Kenya's banks. The financial intermediation and agency theory anchored the study. Information in its primary form was gathered in this study guided by questionnaire. The processed information indicated existence of significant nexus in the variables that were covered. The study creates conceptual gap by focusing on FP while profitability will be covered in the present study.

Okayo (2022) conducted a study on agency banking and the implication it has on profitability of Kenya's banks using KCB as the point of reference. The agents of the bank formed the population of interest. It emerged from the analyzed data that cost, convenience, access as well as regulations were direct predictors.

2.3.3 Agency Banking Market Share and Profitability

Alam, Bhowmik and Bhowmik (2020) focused on Bangladesh and determined how agent banking impacted financial performance of banks. Returns generated ion equity proxy's financial performance and the approach adopted was quantitative. Information in its secondary nature was gathered supported by the period of 2016-2019. It emerged after analysis that the agents in number and deposit volumes had direct and significant implication on financial performance. This study was done focusing on Bangladesh and not in Kenya and hence the contextual gap.

Mbugua and Omagwa (2017) conducted a study linking Agency Banking and Financial Performance of banks in Embu. The Bank Focused theory anchored the study and descriptive design was used. Participants were drawn from managerial levels hence gathering of information was supported by first hand data. It emerged after the data gathered and analyzed that agency banking was a positive and significant enabler of FP. It was summed up that since investing in AB had expanded the market share, agents were required to be supported so as boost financial performance.

Mwariri and Awuor (2020) determined how agency banking adoption affected financial performance of microfinance entities in Nanyuki town. The adopted variables included agency cost effectiveness, operational flexibility and the agency theory guided the study. The design adopted was correlational in nature. Gathering of information was from first hand sources and sampling was through stratified random method. The analysis was that the link in the variables was a significant one. The study creates contextual gap by focusing on MFIs.

Kanyore (2018) linked agency banking and monetary performance of listed banks in Kenyan context. The study covered 11 banks as the population. It emerged that a direct link exists between AB and FP of listed banks in Kenyan context. The study creates methodological gap since it was done using questionnaire thus primary data unlike in the present study where secondary data will be gathered.

Nyambura (2019) reviewed the link between agency banking and monetary of small entities in Kiambu and findings were that a significant link in the variables of the study was evident. Karimi (2018) determined link between agency banking and monetary performance of Equity Bank. The design adopted was descriptive nature and agency bank agents were targeted. Data was qualitative and quantitative in nature as gathered aided by questionnaire. It emerged that general expenses like transactional and operational costs were too high in regard to agency banking.

2.3.4 Agency Banking Perceived Risks and Profitability

Kiplagat (2020) covered 43 banks as the sample on the period 2013-2017. Information was gathered from existing secondary sources with 36 banks being the sample. The research design adopted was correlational in nature. The analysis was able to point out that financial performance and prudential regulations were significantly linked with each other.

The focus of the inquiry by Mwenda (2018) was on 13 MFIs in Kenya with gathering of information being drawn from auxiliary sources on the period 2013 all through to 2017. It emerged after analysis that capital adequacy and financial performance were positively connected with each other. On the other hand, asset quality had an inverse link with performance.

2.3.5 Agency Banking, Bank Size and Profitability

Kirimi, Kariuki and Ocharo (2022) determined how bank size moderated the nexus between financial soundness and performance of Kenya's commercial banks. A total of 39 banks in Kenya were covered on the period 2009-2018 hence it was panel data in its nature. The gathered and analyzed data indicated existence of a significant nexus in the study variables. In another related study by Gathogo (2023), eleven banks were covered on the period from 2011 all through to 2020. While adopting panel data methodology, the study established that bank size moderated the factors that affected financial performance of listed banks in Kenyan context.

Chibole, Lyani and Maniagi (2022) focused on bank size, financial distress factors and FP of Kenyan banks. The approach undertaken was cross sectional and presentation of the processed data was aided by graphs. The study was able to point that bank size was a significant moderator variable in the link between financial distress factors and FP. Jemima (2018) conducted an analysis on determining if bank size moderated the relationship between agency banking and growth of banks in Kenyan context. Insights indicated size as a moderator.

2.4 Summary of Empirical Literature Review and Research Gaps

Table 2.1: Summary of Empirical Literature Review and Research Gaps

Author & year	Study	Key findings	Knowledge gaps	Focus of present study
Bongomin *et al.* (2023)	Analysis of mobile money banking and its implication on the poor and unbanked population in Sub-Saharan Africa.	Agent liquidity enhanced use and access to mobile money services by 27% in spurring financial inclusion to the poor population	The study was confined to Sub-Saharan Africa as a whole	The present study was done specifically on Kenya
Gathogo (2023)	Bank size and factors determining monetary performance of Kenya's banks	bank size moderated the factors that affected monetary performance	Monetary performance was covered in general as the dependent variable	Profitability was the adopted dependent variable
Chibole *et al.* (2022)	Keys issues of financial distress and monetary performance of Kenyan banks with size as moderator	bank size was a significant moderator variable in the link between financial distress factors and monetary performance	The study had financial distress as the independent variable	Agency banking was the independent variable
Kirimi *et al* (2022)	Bank size, soundness in financial terms and monetary performance of Kenyan banks.	Firm size was significant moderator	financial soundness was the broad independent variable	Agency banking was adopted as the brad independent variable
Okayo (2022)	Conducted a study on agency banking and the implication it has on profitability of Kenya's banks using KCB as the point of reference.	Profitability of banks was linked with costs as well as degree of convenience	KCB being only firm was the point of reference	The present study covered a number of listed Kenyan banks

Ombongi (2021)	Agency and mobile banking and the nexus with banks' liquidity levels in Kenya.	Capital adequacy ratio greatly affected financial performance.	Liquidity was the dependent variable that was adopted	Profitability was covered as the dependent variable
Alam *et a*l (2020)	Focused on Bangladesh and determined how agent banking impacted financial performance of banks.	agents in number and deposit volumes had direct and significant implication on financial performance	Bangladesh was where the inquiry was done	The present stud was done in Kenya
Mwariri & Awuor (2020)	Determined how agency banking adoption affected financial performance of microfinance entities in Nanyuki town	The link in the variables was a significant one	The context of this study was on MFIs	Commercial banks listed at NSE were covered
Kiplagat (2020)	Prudential regulations and their implications on monetary performance of Kenya's banks	Analysis was able to point out that financial performance and prudential regulations were significantly linked with each other.	Prudential regulations were the dependent variable	Profitability was the adopted dependent variable
Nyota %Muturi (2019)	Determined the effect of agency banking on monetary perfor,ance of Kenya's banks.	Findings indicated existence of significant nexus in the variables that were covered	Monetary performance was the outcome variable	Profitability formed outcome variable
Nyambura (2019)	AB related transactions and FP of Kiambu's small based enterprises	Significant nexus in the study variables was registered	The study covered SMEs	Listed Kenyan banks were the main focus of the

				present study
Kustina *et al*. (2019)	Branchless banking and profitability with emphasis on banks in Indonesia.	Branchless banking had no significant connection with third party funds in number.	Path analysis was the methodology that was adopted in this study	Analysis was done descriptively and inferentially
Nyambura (2019)	Reviewed the link between agency banking and monetary performance of small entities in Kiambu.	Analysis on the gathered data was that a significant link in the variables was evident	The study covered SMEs	Listed Kenyan banks were central
Mazambani *et a*l., (2018)	An analysis of financial inclusion with more focus on disrupted liquidity and redundancy of mobile money agents in Zimbabwe	Restrictions were in place linked with money in a cashless economy	This study was done in Zimbabwe	Kenyan case was evident in the present study
Karimi (2018)	Determined link between agency banking and monetary of Equity Bank	It emerged that general expenses like transactional and operational costs were too high in regard to agency banking	This was a case study that only involved Equity Bank	The present study covered the listed Kenyan banks
Kanyore (2018)	Agency banking and interplay with monetary performance of listed banks in Kenyan context.	Analysis was that direct link exists between agency banking and monetary performance of listed banks in Kenyan context	Outcome variable was monetary performance	Profitability was predictor
Mwenda (2018)	Prudential regulations and monetary performance of	Direct nexus in variables was suggested	MFIs formed context	Banks provided context

	microfinance entities in Kenya.			
Jemima (2018)	Conducted an analysis on determining whether entities size moderated nexus of agency banking and growth	The analysis was able to point out that bank size was a significant moderator variable.	The study adopted growth as the dependent variable	Profitability was adopted as a dependent variable
Mbugua &Omagwa (2017)	Conducted a study linking agency banking and monetary performance of banks in Embu.	Agency banking was a positive and significant enabler of monetary performance	The outcome variable was monetary performance	Profitability was the outcome variable

Source: Author (2024)

2.5 Conceptual Framework

The figure 2.1 indicates conceptual framework used in the study. It is showing the relationship between the independent variables- Agency Banking and Dependent variable- Profitability and the moderating variable of Bank Size on the relationship between Agency banking and Profitability.

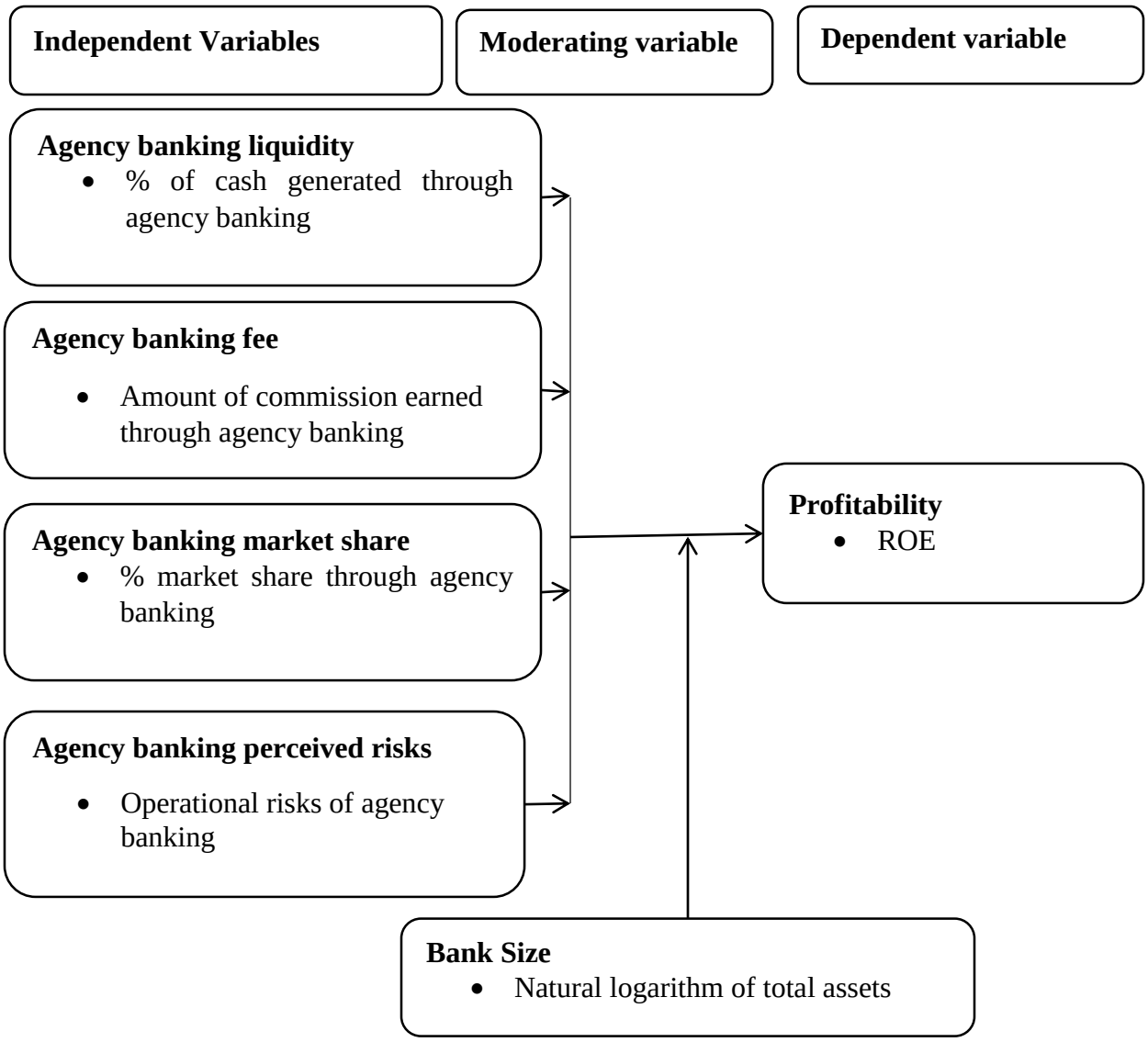

Figure 2.1: Conceptual Framework

Source: Author (2024)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The focus of the chapter is on the design and the philosophy to be adopted. It also specifies the empirical model, target population and how information was gathered and processed. The relevant diagnostic tests conducted during processing of findings are also outlined.

3.2 Research Philosophy

Although there exist several research philosophies, this study was based on positivist philosophy (Eden & Nielsen, 2020). Through this philosophy, it was possible for this study to obtain quantitative data to support testing of the established hypotheses. The present study entailed testing of the formulated hypotheses that was made possible and taken care by adoption of this positivist philosophy. According to Bougie and Sekaran (2019), robust drawing of inferences in a study that entails testing of hypotheses can best be achieved through gathering and analysis of quantitative data and this is the same activities that were done in the proposed study hence the justification of adopting the positivist philosophy.

3.3 Research Design

This study adopted explanatory design. According to Dźwigoł (2019), explanatory design is one that supports studies which strive to link various theories and it is most useful in studies that entail testing of hypotheses to obtain the case effect link in the variables. Thus, this design helped to support testing of the hypotheses that have been formulated in this study informed by the specific objectives. This design helped in determining the cause

effect link in agency banking, bank age as a moderator and profitability taking into consideration the views from Kenya's commercial banks.

3.4 Empirical Model

The first regression model called the 'General Model' (Gupta, Sharma & Goel, 2017) was used to establish the effect of agency banking and profitability. This is shown by model I below:

$$\mathbf{Y_{it} = \beta_0 + \beta_1X_{1it} + \beta_2X_{2it} + \beta_3X3_{it} + \beta_4X_{4it} + \varepsilon}$$

Where:

Y_{it} = Profitability of bank i at time t

β_0 = Constant term

β_1-β_4 = Regression Coefficients

X_{1i} = Agency banking liquidity of bank i at time t

X_{2i} = Agency banking fees of bank i at time t

$X3_i$ = Agency Banking market share of bank i at time t

X_{4i} = Agency Banking perceived risks of bank i at time t

ε = error term

Baron and Kenny (1986) aided moderation effect testing

$$\mathbf{Y_{it} = \beta_0 + \beta_1X_{it} + \varepsilon} \quad \textbf{(3.1)}$$

Where:

Y_{it} = Profitability of bank i at time t

β_0 = Constant term

β_1 Regression coefficients

X_i= Agency banking (as a composite score of agency banking liquidity, agency banking fee, agency banking market share and agency banking perceive risks) of bank i at time t time t

Ɛ = error term

$$\mathbf{Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 BS_{it} + Ɛ} \text{……..(3.2)}$$

Y_{it} = Profitability of bank i at time t

β_0 = Constant term

β_1-β_2 = Regression Coefficients

X_i= Agency banking (as a composite score of agency banking liquidity, agency banking fee, agency banking market share and agency banking perceive risks) of bank i at time t

BS_{it}= bank size of bank i at time t

Ɛ = error term

$$\mathbf{Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 BS_{it} + \beta_3 X_{it} * BS_{it} + Ɛ} \text{……..(3.2)}$$

Where:

Y_{it} = Profitability of bank i at time t; β_0 = Constant term : β_1-β_4 = Regression Coefficients

X_i= Agency banking (as a composite score of agency banking liquidity, agency banking fee, agency banking market share and agency banking perceive risks) of bank i at time t

BS_{it}= bank size of bank i at time t

$\mathbf{\beta_3 X_{it} * BS_{it}}$ = interaction term of bank i and time t

ε = error term

According to Baron and Kenny (1986), if the p-value for bank size is significant in model 3.2, and also significant with the interaction term in model 3.3, then the variable was a full moderator variable.

3.5 Operationalization and Measurement of Research Variables

Table 3.1 is the operationalization of the study variables

Table 3.1: Operationalization and Measurement of Research Variables

Variable	Type	Operationalization	Measurement	Hypothesized direction
Agency banking liquidity	Independent	% of cash generated through agency banking	Cash generated through agency banking/Gross interest margin	Positive/negative
Agency banking fee	Independent	Amount of commission earned through agency banking	Natural logarithm of commission earned through agency banking	Positive/negative
Agency banking market share	Independent	% Market share through agency banking	% Conversion into decimal	Positive/negative
Agency banking perceived risks	Independent	Operational risks of agency banking	Cost income ratio	Positive/negative
Bank size	Moderating	Total assets	Natural logarithm of total assets	Positive/negative
Profitability		ROE	Net income/total equity	

Source: Researcher (2024)

3.6 Target Population

Twelve listed banks in Kenya were targeted followed by adoption of census. Hence all these banks were included in the study.

3.7 Sampling Procedure

This was a census study, since the population was small. According to Thanem and Knights (2019), census is appropriate in a population with less than 200 elements which is the same case with this study. Thus, all the 12 listed banks were included in the analysis of the findings.

3.8 Data Collection Instrument

Information in its secondary form was gathered in this study on a period of five years (2019-2023). The reason for selecting upon this period is because of the ease of availability of data and also because it is the most recent one. The period was adequate enough to generate data points that are needed in a quantitative study. The sources of information included NSE, CMA and CBK publications and this information was available and gathered on annual basis.

3.9 Data Collection Procedures

A letter to gather data from the aforementioned secondary sources was obtained from the Graduate Schools to support the data collection process. Information was accessed through online where relevant publications on agency banking from the aforementioned sources were reviewed. From here, the outputs collected were entered into excel clearly arranged forming a panel data.

3.10 Data Analysis

To analyze data is to create meaning from the hard and raw facts that will have been obtained from the field (Ghauri, Grønhaug & Strange, 2020). SPSS version 27 reinforced the analysis. This was done after necessary adjustments had been done to edit and format inconsistencies in the data captured into excel after the collection process. Figures and tables aided presentation of the analyzed findings. The steps followed for analysis once data had been gathered included descriptive analysis that entailed computation of values of means and standard deviations followed by diagnostic test then inferential statistics. The hypotheses were tested at 5% level of significance based on p-values that had been determined from the regression analysis.

3.11 Model Specification

Since panel data was adopted in this study, there was need to perform model specification tests, to decide on whether to use pooled ordinary least squared, random effect (RE) or fixed effect (FE) models. Thus, Breusch Pagan LM Test and Hausman Test were performed in this study as discussed below

3.11.1 Breusch Pagan LM Test

This test is performed in deciding whether to adopt random effect or simple ordinary least square (Abdul-Hameed & Matanmi, 2021). Under this test, the null hypothesis is that there is no significant difference across units. When Prob > chibar2 < 0.05, we fail to accept the null hypothesis and conclude that random effects are needed (Guastadisegni, Cagnone, Moustaki & Vasdekis, 2022).

3.11.2 Hausman Test

This test is conducted to decide on whether to adopt Random effect of Fixed effect model. The null hypothesis is that models are not random (Amini, Delgado, Henderson, & Parmeter, 2012). If Prob. > Chi-square is not significant ($p > 0.05$), H0 is not rejected, inferring presence of random effect model (Patrick, 2021).

3.12 Unit Root Test

This test verifies the stationary nature of the data. When the mean and variance of a piece of data stay constant across time, it is said to be stationary (Pesaran, 2007). The presence of stationarity will be determined using the Augmented Dickey-Fuller (ADF) test. In reality, any panel data study would benefit from having a p-value smaller than 0.05 since it shows that the data is stationary and devoid of a unit root (Dickey & Fuller, 1979).

3.13 Diagnostic Tests

The diagnostic tests done as a way of validating the assumptions of regression analysis as discussed below:

3.13.1 Multicollinearity Test

Multicolinearity is a situation where the predictor variables are highly correlated with each other (Haitovsky, 1969).It is not desirable since it strongly violates the regression analysis assumption. To test for multicolinearity, the values of VIF were computed and as recommended by Rose, McKinley and Baffoe-Djan (2019) and the theoretical threshold is the value between 1 to 10.

3.13.2 Normality Test

Before conducting regression analysis, the data should have the properties of a normal distribution hence the need for normality test (Das & Imon, 2016). The values of Skewness and Kurtosis were computed and interpreted accordingly. According to McKinley and Rose (2019), such values in the range of +/- 3 would signify data is normally distributed.

3.13.3 Heteroscedasticity Test

Heteroscedasticity is an undesirable condition in regression data whose opposite is homoscedasticity (Breusch & Pagan, 1979). The study tested for this assumption using Levene test. As indicated by Nielsen, Eden and Verbeke (2020), p-values from this test above 0.05 show absence of the assumption in the sample data**.** The above tests were complemented below the ones discussed as under:

3.13.4 Linearity Test

Linearity test is conducted to establish if there exists linear nexus in variables (Hansen, 1999). This should be the case in order for multiple regression analysis to proceed. The test was achieved through Analysis of Variance (ANOVA) and the values of F calculated and p values were interpreted accordingly in response to this test (Harvey & Leybourne, 2007).

3.13.5 Autocorrelation Test

The presence of serial correlation in the data of the study necessitated the need for an autocorrelation test (King, 2018). It was determined through Durbin Watson statistic and as argued by King, (2018), values around 2 signify absence of this condition in the data.

3.14 Ethical Considerations

Necessary authorities for data gathering exercise were determined including a letter of introduction from KU and a research permit from NACOSTI. The data collected in this

study was stored safely and would be destroyed after a period of five years. The literature reviewed was citied appropriately through America Psychology Association (APA) to avoid plagiarism. The final findings of this research would be disseminated for public consumption through the KU institutional repository and after journal publication.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

Once information had been gathered, it underwent transformation and processing to come up with results. This chapter therefore captures the detail of how insights were processed and generated.

4.2 Summary of Descriptive Statistics

4.2.1 Means and Standard Deviations

Table 4.1: Descriptive Results

	N	Min	Max	Mean	Std. Dev.
Agency banking liquidity	60	.27	.55	.3937	.07347
Agency banking fee	60	.78	3.60	2.5259	.51282
Agency banking market share	60	.00	2.26	.7072	.54301
Agency banking perceived risks	60	.00	1.15	.7695	.30596
Bank Size	60	1.56	6.14	3.6268	.83474
Profitability	60	-4.14	.57	-.2647	.69710

Source: Researcher (2024)

The table 4.1 indicates that the mean value of agency banking liquidity was at 0.3937. This means that investment in agency banking has contributed towards 39.37% of liquidity position of CBs in Kenya. In particular, liquidity is an important parameter and indicator that encourage and promote smooth running of operations of the firm. This is of particular importance to a financial institution like a commercial bank that require adequate amount and level of liquidity in order to effectively carry out their intermediation role in a developing economy like Kenya. Maintaining an adequate level of liquidity can help a financial institution like a commercial bank to service loan request of customers on time

and this can translate to more sales and hence profitability can also increase. Ringo et al. (2022) shared that agency banking liquidity is the degree which banks are in position of attaining their short-term obligations and has maintenance of enough liquidity position in efforts to covering potential payment or withdrawal demands from the customers of the bank. Agency banking liquidity can further be considered as the total fund amount allocated by the bank for making settlement processes in systems of payment.

Agency banking fee had an average value of 2.5259. This figure is far above the earlier one indicated for agency banking liquidity. This implies that commercial banks enjoy great benefits of the fees they charge for customers to access financial services through their designated agents. While these fees are regarded as expenses from the side of customers, they are incomes on the side of the bank. The findings are consistent with Kustina, Dewi, Prena and Suryasa (2019) who said that agency banking fee are the charges and expenses incurred by customers striving to utilize agency baking services and that while this fee is regarded as a cost on behalf of the customer, it is a source of revenue for commercial banks. On the other hand, Mwangi and Kalui (2022) were of view that commercial banks do classify this agency banking fee in terms of non-interest incomes that when optimized can maximize their profitability hence profit trajectory.

Agency banking market share had an average value of .7072. This implies that agency banking contributes towards an average of 70.72% of the market shares of commercial banks that were covered in this study. The possible explanation of this observation is the ease and convenience of access to agents of the banks who in remote and developed urban centers across the country. In other words, it can be said that a large proportion of customers of the studied banks do rely on agents to carry out their financial transactions.

Agency banking market share is regarded in terms of the users of the agency banking model and the volume of transactions moved by customers through agency banking (Alam, Bhowmik and Bhowmik, 2020). Thus, agency banking market share would increase whenever there is an increase in the number of users of agency banking as well as when the volume moved through agency banking by customers also increases. Any increase in the number of users of agency baking would translate to growth in profits generated by the firm. The most important measure of this construct is the percentage of market share through agency banking (Mwariri & Awuor, 2020).

On agency banking perceive risk, the mean value is given as 0.7695, this shows that there are some potential risks in the agency banking framework and model that should be well and carefully managed in order to allow financial institutional to reap much from the already mentioned benefits. These risks could be the possible reasons why some of the banks are not benefiting enough from their agency banking models. The finding is consistent with Kiplagat (2020) who noted that agency banking systems is associated with a number of perceived risks by customers and its users. In fact, security concern has been identified as one of the barriers towards slow utilization of agency banking channels by customers particularly in Sub-Saharan countries. Some of the perceived risks that are linked with the use of agency banking stem from concerns about safety of the transactions and operating risks. Operational income against operating expenses incurred during transaction of agency banking is an important measure of operating risk linked with agency banking.

The average value of bank size is given as 3.6268 while that of profitability stood at -0.2647 respectively. Clearly, it is evident that profitability has a negative coefficient, which

means that some of the commercial banks in Kenya are currently facing or encountering challenges with their profitability. This provided the basis of conducting this present study.

4.2.2 Trend Analysis

Figure 4.1 is the trend in profitability of the studied banks:

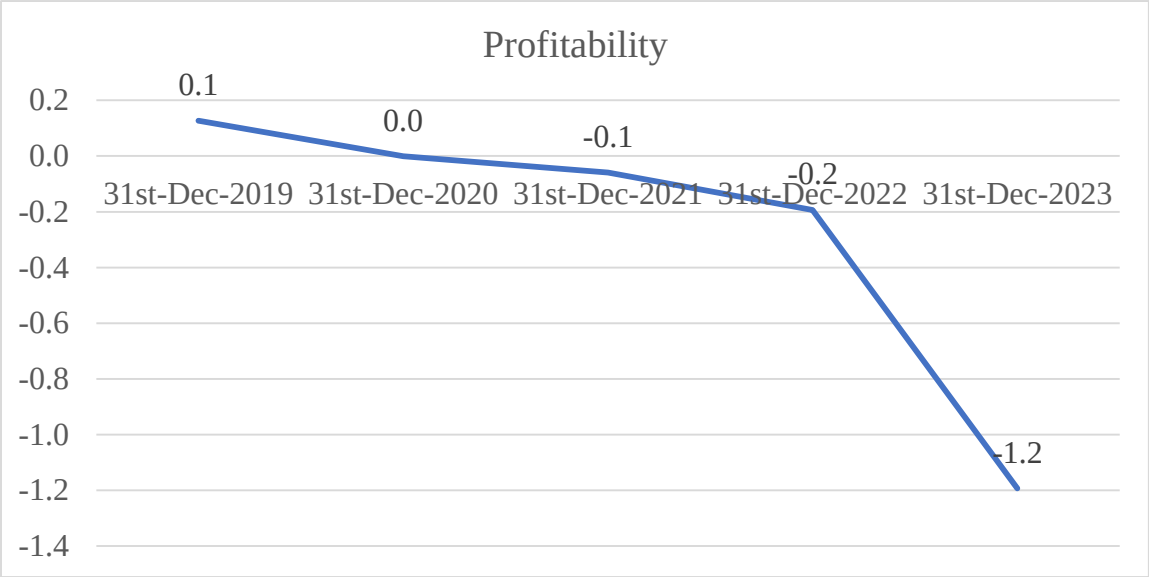

Figure 4.1: Trend Analysis

Generally, profitability of the studied banks moved with a decreasing trend over the period under review. The findings of trend analysis on agency banking and bank size were determined and presented in Figure 4.2 below:

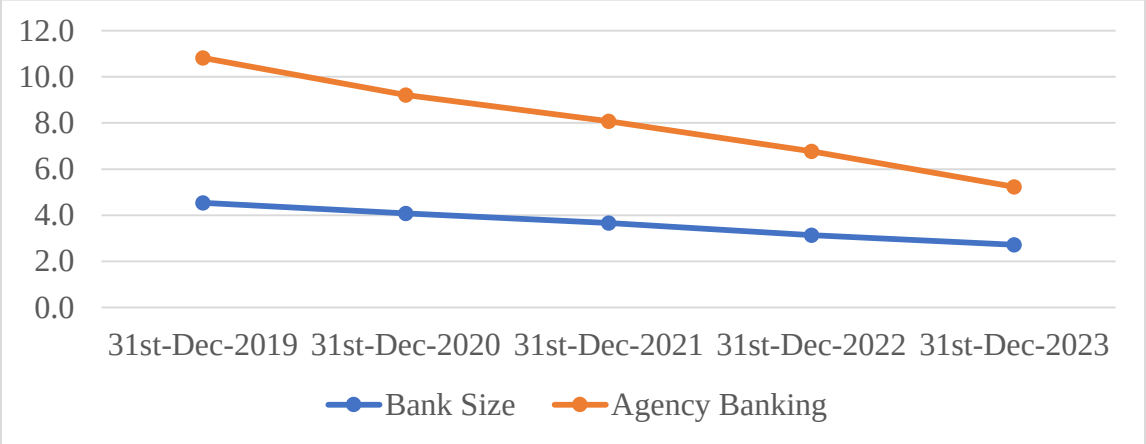

Figure 4.2: Agency Banking Trend and Bank Size

The Figure 4.2 shows that the trend of agency banking is above that of bank size. However, there was a constant drop in both agency banking and bank size of the studied banks across the period under review.

4.3 Diagnostic Tests

The study performed relevant diagnostic tests that multicolinearity, normality and Heteroscedasticity Test and their analysis is as presented in the subsequent sections:

4.3.1 Multicollinearity Test

Multicolinearity is not desirable since it strongly violates the regression analysis assumption. To test for multicolinearity, the values of VIF were computed and as recommended by Rose, McKinley and Baffoe-Djan (2019) and the theoretical threshold is the value between 1-10.

Table 4.2: VIF

	Tolerance	**VIF**
Agency banking liquidity	.814	1.229
Agency banking fee	.584	1.712
Agency banking market share	.648	1.542
Agency banking perceived risks	.505	1.981
Bank Size	.871	1.149

Source: Researcher (2024)

All the variables are seen to have VIF values in the range of 1-110, hence no collinearity.

4.3.2 Normality Test

According to McKinley and Rose (2019), such values of Skewness and kurtosis in the range of +/- 3 would signify the data has properties of normal distribution. Table 4.3 gives a breakdown of the findings from the analysis:

Table 4.3: Normality Test

	Skewness		Kurtosis	
	Statistic	**Std. Error**	**Statistic**	**Std. Error**
Agency banking liquidity	-.006	.309	-1.007	.608
Agency banking fee	-.515	.309	2.015	.608
Agency banking market share	1.052	.309	1.419	.608
Agency banking perceived risks	-1.046	.309	.590	.608
Bank Size	.225	.309	1.006	.608
Profitability	-3.877	.309	1.788	.608

Source: Researcher (2024)

The table 4.3 shows that the values for Skewness and Kurtosis across all the variables that were covered are all in the range of -/+ 3, providing a clear indication that there was normality.

4.3.3 Heteroscedasticity Test

Heteroscedasticity is an undesirable condition in regression data whose opposite is homoscedasticity. The study will test for this assumption using Levene test. As indicated by Nielsen, Eden and Verbeke (2020), p> 0.05 show absence of the assumption in the sample data**.**

Table 4.4: Heteroscedasticity Test

Variable	Significance
Agency banking liquidity	.123
Agency banking fee	.224
Agency banking market share	.167
Agency banking perceived risks	.548
Bank Size	.378
Profitability	.879

Source: Researcher (2024)

The table 4.4 indicates that all the variables had p-values above 0.05 i.e. p>0.05 from agency banking liquidity all through to profitability. This is a clear indication of absence of Heteroscedasticity.

4.3.4 Linearity Test

Linearity test is conducted to establish if there exists linear relationship between the predictor and dependent variables of the study. Table 4.5 gives the summary of the findings

Table 4.5: Linearity Test through ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	18.774	5	3.755	26.084	.000[b]
Residual	9.897	54	.183		
Total	**28.671**	**59**			

Source: Researcher (2024)

The Table 4.5 indicates the value of F calculated as 26.084 while F critical at df 5 and 54 is 2.3861 with p value as 0.000 being lower than 0.05. This means that on overall, there exists linear relationship between the study variables.

4.3.5 Autocorrelation Test

It was determined through Durbin Watson statistic and as argued by King, (2018), values about 2 signify absence of this condition in the data.

Table 4.6 : Autocorrelation Test

Model	Durbin-Watson
1	2.373

Source: Researcher (2024)

The table 4.6 the value of Durbin Watson Statistic is 2.373. This figure is about 2, an indication that there existed no serial correlation in the data that was used in this study.

4.4 Model Specification and Stationarity Test

This test is performed in deciding whether to adopt random effect or simple ordinary least square (Abdul-Hameed & Matanmi, 2021). Under this test, the null hypothesis is that there is no significant difference across units and Table 4.7 gives an overview of the findings.

Table 4.7: Breusch Pagan LM Test

chi2	Significance
175.67	.758

Source: Researcher (2024)

From Table 4.7, the p-value is given as 0.758 which is above 0.05. According to Guastadisegni et al. (2022), when Prob > chibar2 < 0.05, we fail to accept the null hypothesis and conclude that random effects are needed. Thus, ordinary least square than RE is preferred in this study.

4.5 Unit Root Test

This test verifies the stationary nature of the data. When the mean and variance of a piece of data stay constant across time, it is said to be stationary (Pesaran, 2007). The presence of stationarity was determined using the Augmented Dickey-Fuller (ADF) test and the findings are as specified in Table 4.8.

Table 4.8: Unit Root Test

Variable	Test Statistic Value	5% Critical value	P-value	Decision criteria	Inference
Agency banking liquidity	-3.899	-2.923	0.002	p<0.05	Agency banking liquidity is stationary
Agency banking fee	-5.405	-2.923	0.000	p<0.05	banking fee is stationary
Agency banking market share	-4.993	-2.923	0.000	p<0.05	Agency banking market share is stationary
Agency banking perceived risks	-5.383	-2.923	0.000	p<0.05	Agency banking perceived risks is stationary
Bank size	-3.755	-2.923	0.003	p<0.05	Bank size is stationary
Profitability	-4.267	-2.923	0.000	p<0.05	Profitability is stationary

Source: Researcher (2024)

From Table 4.8, the p-values for the all the variables of the study were all below 0.05. In reality, any panel data study would benefit from having a p-value smaller than 0.05 since it shows that the data is stationary and devoid of a unit root (Dickey & Fuller, 1979). Thus, all the variables in this study were stationary.

4.6 Correlation Matrix

Table 4.9 gives correlation analysis results

Table 4.9: Correlation Matrix

	Profitability	Agency banking liquidity	Agency banking fee	Agency banking market share	Agency banking perceived risks	Bank Size

Profitability	r	1					
	Sig. (2-tailed)						
	N	60					
Agency banking liquidity	r	.631	1				
	Sig. (2-tailed)	.000					
	N	60	60				
Agency banking fee	r	.649**	.921	1			
	Sig. (2-tailed)	.005	.000				
	N	60	60	60			
Agency banking market share	r	.554**	.925	.897	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	60	60	60	60		
Agency banking perceived risks	r	.766	.938	.915	.836	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	60	60	60	60	60	
Bank Size	r	.318	.738	.593	.618	663	1
	Sig. (2-tailed)	.013	.000	.000	.000	.000	
	N	60	60	60	60	60	60

Source: Researcher (2024)

The Table 4.9 indicates that agency banking liquidity (r=0.631) had strong and positive nexus with profitability. This means that strengthening the degree and level of liquidity of agency banking would greatly enhance profit generating potential of financial entities. This finding agrees with Bongomin, Akol-Malinga, Amani-Manzi and Balinda (2023) who conducted an analysis of mobile money banking and its implication on the poor ad unbanked population in Sub-Saharan Africa. The analyzed findings were that agent liquidity enhanced use and access to mobile money services by 27% in spurring financial inclusion to the poor population.

It was noted that agency banking fee (r=0.649) and profitability had strong and direct nexus with each other. This then follows that any effort to increase the charges incurred by customers to access financial services through agents would grow revenues and thus the amount of profits generated by commercial banks in Kenya. This finding agrees with. Nyota and Muturi (2019) who determined the effect of agency banking on monetary performance of Kenya's banks where the he processed information indicated existence of significant nexus in the variables that were covered. Similarly, Okayo (2022) conducted a study on agency banking and the implication it has on profitability of Kenya's banks using KCB as the point of reference where it emerged from the analyzed data that cost, convenience, access as well as regulations were direct correlates.

The analysis indicated that the interplay existing between agency banking market share and profitability of financial entities in Kenya was strong and positive (r=0.554). This means that putting in place relevant mechanisms to grow the market share gained by commercial banks through their agency banking model would also lead to an increase in profits generated by commercial banks. The finding concurs with Alam, Bhowmik and Bhowmik (2020) who focused on Bangladesh and determined how agent banking impacted financial performance of banks. It emerged after analysis that the agents in number and deposit volumes had direct and significant implication on financial performance. Mbugua and Omagwa (2017) conducted a study linking agency banking and monetary performance of banks in Embu. It emerged after the data gathered and analyzed that agency banking was a positive and significant enabler of Financial Performance.

The study further indicated that agency banking perceived risks (r=0.766) had strong and positive relationship with profitability. This means that while agency banking model is

generally promising to financial institutions, potential risks linked with the same models can likely have an implication on profits generated. In fact, these risks when effectively managed would greatly contribute towards profitability of banks as compared to any other aspects of agency banking. This finding agrees with Kiplagat (2020) who covered 43 banks as the sample on the period 2013-2017. Information was gathered from existing secondary sources with 36 banks being the sample. The analysis was able to point out that financial performance and prudential regulations were significantly linked with each other.

4.7 Regression Results Linking Agency Banking and Profitability

Table 4.10: Regression Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	.809	.655	.630	.42419

Source: Researcher (2024)

The findings in Table 4.10 show the value of adjusted R^2 as 0.630, this means that on overall, 63% change in profitability can be explained by their investment in agency banking. Consider ANOVA evidence in Table 4.11.

Table 4.11: Beta Coefficients and Significance

	Unstandardized		Standardized Coefficients	` t	Significance
	B	Std. Error	Beta		
(Constant)	.527	.955		.552	.583
Agency banking liquidity	-8.270	3.225	-.872	-2.565	.013
Agency banking fee	.261	.102	.118	2.559	.030
Agency banking market share	.321	.107	.172	3.000	015

Agency banking perceived risks	3.528	.614	1.548	5.750	.000

Source: Researcher (2024)

From Table 4.11, the study noted that AB liquidity (β=-8.270, p=0.013<0.05), agency banking fee (β=0.261, p=0.030<0.05), agency banking market share (β= 0.321, p=0.015<0.05) and agency banking perceived risks (β=3.528, p=0.000<0.05) were all established to have significant effect on profitability.

4.8 Bank Size, Agency Banking and Profitability

Table 4.12 is model summary testing moderation.

Table 4.12: Model Summary for Moderation Testing

Model	R		R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
						R^2Change	F Change	df1	df2	Sig. F Change
1	.662[a]		.439	.429	.52674	.439	45.335	1	58	.048
2	.679[b]		.461	.461	.52088	.022	2.313	1	57	.134
3	.636[c]		.541	.517	.48455	.081	9.868	1	56	.003

Source: Researcher (2024)

The most important parameter in Table 4.12 as far as moderation testing is concerned is the value of R^2 change. From the findings, in model 2, there was R-square change of 0.022 and after the introduction of the interaction term, an R^2 change was 0.081. The two R^2 change provide strong evidence of possibility of bank size as a moderator variable. Table 4.13 gives ANOVA evidence.

Table 4.13: ANOVA Findings for Moderation Testing

Model		SS	Df	MS	F	Sig.
1	Regression	12.579	1	12.579	45.335	.000[b]
	Residual	16.092	58	.277		
	Total	28.671	59			

2	Regression	13.206	2	6.603	24.337	.000[c]
	Residual	15.465	57	.271		
	Total	28.671	59			
3	Regression	15.523	3	5.174	22.039	.000[d]
	Residual	13.148	56	.235		
	Total	28.671	59			

Source: Researcher (2024)

The three regression models, 1, 2 and 3 were all significant ($p<0.05$) and hence suitable for use in the present study for analysis of findings. Table 4.14 gives an overview of the findings of beta coefficients and significance:

Table 4.14: Beta Coefficients for Moderation Testing

Model		**Unstandardized Coefficients**		**Standardized Coefficients**		
		B	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	-1.735	.229		-7.586	.000
	Agency Banking	.334	.050	.662	6.733	.000
2	(Constant)	-1.426	.304		-4.692	.000
	Agency Banking	.398	.065	.789	6.165	.000

	Bank Size	-.162	.107	-.195	-1.521	.134
3	(Constant)	-1.214	.291		-4.176	.000
	Agency Banking	.469	.064	.929	7.308	.000
	Bank Size	-.178	.100	-.213	-1.789	.079
	Interaction term	-.161	.051	-.312	-3.141	.003

Source: Researcher (2024)

From the results in Table 4.14, agency banking as a composite score (β=0.334, $p<0.05$) was found to be significant. In model 2, firm size after its introduction was not significant (β=-0.162, $p>0.05$). In model 3, firm size ($p>0.05$) while interaction ($p<0.05$). This means that firm size was a partial moderating variable. The interaction term in Table 4.12 above is between agency banking and profitability.

4.9 Hypotheses Testing and Discussion

The first hypothesis covered in this study was **H_{01}:** agency banking liquidity has no significant effect on profitability. Agency banking liquidity (β=-8.270, $p=0.013<0.05$), hence hypothesis H_{01} was rejected inferring that it was a positive and significant predictor of profitability. This finding agrees with Bongomin, Akol-Malinga, Amani-Manzi and Balinda (2023) who conducted an analysis of mobile money banking and its implication on the poor ad unbanked population in Sub-Saharan Africa where the analyzed findings were that agent liquidity enhanced use and access to mobile money services by 27% in spurring financial inclusion to the poor population.

H_{02}: Agency banking fee has no significant effect on profitability. It emerged that agency banking fee (β=0.261, $p=0.030<0.05$) and hence hypothesis H_{02} was rejected deducing that it was a positive and significant enabler of profitability. The finding agrees with Kustina, Dewi, Prena and Suryasa (2019) who established that branchless banking had no significant

connection with third party funds in number. Nyota and Muturi (2019) determined the effect of agency banking on monetary performance of Kenya's banks and the processed information indicated existence of significant nexus in the variables that were covered. Okayo (2022) conducted a study on agency banking and the implication it has on profitability of Kenya's banks using KCB as the point of reference where it emerged from the analyzed data that cost, convenience, access as well as regulations have a positive effect on the profit trajectory.

The third hypothesis of the study was **H_{03}:** Agency banking market share has no significant effect on profitability. It was noted from the findings as follows, agency banking market share (β= 0.321, p=0.015<0.05) and thus hypothesis H03 was rejected inferring that it had positive and significant effect on profitability. Alam, Bhowmik and Bhowmik (2020) who indicated that the agents in number and deposit volumes had direct and significant implication on financial performance. Kanyore (2018) established direct link exists between agency banking and monetary performance of listed banks in Kenyan context. Nyambura (2019) reviewed the link between agency banking and monetary performance of small entities in Kiambu. The analysis on the gathered data was that a significant link in the variables of the study was evident. Karimi (2018) determined link between agency banking and monetary performance of Equity Bank. It emerged that general expenses like transactional and operational costs were too high in regard to agency banking.

The study had the fourth hypothesis as **H_{04}:** agency banking perceived risks have no significant effect on profitability. The findings were that agency banking perceived risks (β=3.528, p=0.000<0.05). It can therefore be deduced that agency banking perceived risks are positive and significant predictors of profitability. The finding is consistent with

Kiplagat (2020) who was able to point out that financial performance and prudential regulations were significantly linked with each other.

The study had the fifth hypothesis being **H_{05}:** firm size is not a significant moderator variable. The findings indicated that firm size while firm size after its introduction was not significant (β=-0.162, $p>0.05$) in model and model 3, interaction term was significant ($p<0.05$). Thus, the study rejects hypothesis H05 and deduced that firm size was a partial moderator variable and this is empirically supported by some of the studies that were reviewed in chapter two. In most cases, relatively small banks do face a number of disadvantages as compared to relatively stable and older financial institutions. According to Rahman and Yilun (2021), profitability of the firm decreases with a decrease in its size. Empirical evidence by Silva et al. (2019) and Mishra et al. (2021), and Arora (2022) provide indication that financial performance of the institution increases with its size. The growing body of literature indicate that bank size is a moderator variable, these include Kirimi, Kariuki and Ocharo (2022), Gathogo (2023) as well as Chibole, Lyani and Maniagi (2022) and Jemima (2018)

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

Summarization and conclusion of the study results is as provided in subsequent sections.

5.2 Summary of the Study

In this study, while agency banking was the broad independent variable, bank size was a moderating variable and profitability was the dependent variable. The specific proxies of agency banking that were covered which in turn informed the formulation of objectives included agency banking liquidity, agency banking fee, agency banking market share as well as agency banking perceived risks.

It was noted from correlation analysis that agency banking liquidity and profitability of commercial banks were strongly and negatively related with each other. In other words, strengthening the degree and level of liquidity of agency banking would greatly enhance profit generating potential of financial entities. In view of regression analysis, agency banking liquidity exerted significant implication on profitability.

Correlation evidence was that agency banking fee was a positive and strong nexus with profitability. This then follows that any effort to increase the charges incurred by customers to access financial services through agents would grow revenues and thus the amount of profits generated by commercial banks in Kenya. Further inferential were that agency banking fee had significant implication on profitability.

In regard to correlation analysis, it emerged that agency baking market share had strong and positive relationship on profitability. This is to imply that putting in place relevant

mechanisms to grow the market share gained by commercial banks through their agency banking model would also lead to an increase in profits generated by commercial banks. Regression findings were that agency banking market share and profitability had critical nexus.

The study noted that agency banking perceived risk had strong and positive relationship with profitability. It then follows that while agency banking model is generally promising to financial institutions, potential risks linked with the same models can likely have an implication on profits generated. In fact, these risks when effectively managed would greatly contribute towards profitability of banks as compared to any other aspects of agency banking. It was clear from regression analysis that agency banking perceived risks and profitability of commercial banks had significant interplay with each other.

It emerged from correlation that bank size had moderate and positive nexus with profitability. The study further noted that firm size partially moderates the relationship between agency banking and profitability.

5.3 Conclusions of the Study

Agency banking liquidity critically predicted profit trend. The negative sign on agency banking liquidity indicate that its careful management can enhance profits generated by commercial banks.

It is implied from objective two that any effort to increase the fees that commerce banks charge customers to access services through agents would increase revenues generated. This in turn would allow the banks to improve on their profitability.

Agency banking market share has significant effect on profitability. Hence, an increase in agency banking market share would mean more customers who then may imply more revenue generated. This would then improve profitability of the banks.

Agency banking perceived risks is significant predictors of profitability. In fact, the relationship between agency banking liquidity and profitability was positive. This mean that any efforts to enhance agency banking perceived risks would lead to an improvement in the amount of profits generated.

The study established that firm size exerted moderate but positive nexus with profitability in view of correlation analysis results. From regression, it can be concluded that firm size was partial moderator variable.

5.4 Contributions of the Study

Agency banking is a new and evolving model that has been widely adopted in banks. This has been recognized as significant steps in supporting the decongesting the banking hall to optimize on the available space. While it has generally been observed that the adoption of this agency banking model has significantly influenced profitability of commercial banks in Kenya, there are some risks associated with it that should be carefully managed to achieve the desired benefits. The size of financial institutions in terms of their asset base is also an important consideration in predicting the revenues and thus profits likely to be generated from the agency model.

5.5 Recommendations of the Study

This study recommends managers to effectively and prudently maximize the cash generated from agency banking to improve their liquidity levels. However, the attained liquidity levels should be balanced with solvency and long-term profitability of their banks.

The findings recommend for maximization of revenues generated from agency banking firm to implement risky investment projects that are associated with higher returns hence greater profits.

The study recommends to policy makers to invest in rigorous marketing efforts and campaigns that increase market share hence greater customer base. This will in turn reflect in an in increase in loan uptake and thus profitability.

The managers and policy makers working with commercial banks in Kenya should implement a robust risk-based management framework to mitigate against agency banking risks for greater profits.

The study noted that firm size was a partial moderator variable. Thus, sizes of banking entities should be adopted to drive growth.

5.6 Areas for Further Research

All commercial banks in Kenyan context should be of focus in future inquiries, microfinance institutions or even the deposit taking savings and credit cooperative organizations (SACCOs). This will avail a room for comparison of the findings of the study.

REFERENCES

Abdi, J., & Mang'ana, R. (2022). Bank Restructuring Strategies and Performance of Commercial Banks Listed on Nairobi Securities Exchange, Kenya. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, *6*(2).

Alam, M. M., Bhowmik, D., & Bhowmik, D. (2020). The impact of agent banking on financial performance of commercial banks in Bangladesh. *IOSR Journal of Economics and Finance (IOSR-JEF)*, *11*(3), 13-20.

Alam, M. M., Bhowmik, D., & Bhowmik, D. (2020). The impact of agent banking on financial performance of commercial banks in Bangladesh. *IOSR Journal of Economics and Finance (IOSR-JEF)*, *11*(3), 13-20.

Baituti, C. M., & Ngaba, D. (2022). Bank Size and Non-Performing Loans of Commercial Banks Listed at the Nairobi Securities Exchange, Kenya. *Asian Journal of Economics, Finance and Management*, 324-329.

Bongomin, G. O. C., Akol-Malinga, C., Amani Manzi, A., & Balinda, R. (2023). Agent liquidity: A catalyst for mobile money banking among the unbanked poor population in rural sub-Saharan Africa. *Cogent Economics & Finance*, *11*(1), 2203435.

Bougie, R., & Sekaran, U. (2019). *Research methods for business: A skill building approach*. John Wiley & Sons

Chibole, K. W., Lyani, N. M., & Maniagi, M. G. (2022). The moderating effect of bank size on the relationship between financial distress factors and financial performance of commercial banks in Kenya. *The Strategic Journal of Business & Change Management*, 9 (4), 706 – 719.

Coad, A., Holm, J. R., Krafft, J., & Quatraro, F. (2018). Firm age and performance. *Journal of Evolutionary Economics, 28,* 1-11.

Cull, R., Gine, X., Harten, S., Heitmann, S., & Rusu, A. B. (2018). Agent banking in a highly under-developed financial sector: Evidence from Democratic Republic of Congo. *World Development*, *107*, 54-74.

Dzombo, G. K., Kilika, J. M., & Maingi, J. (2017). The effect of branchless banking strategy on the financial performance of commercial banks in Kenya. *International Journal of Financial Research*, *8*(4), 167-183.

Dźwigoł, H. (2019). Research methods and techniques in new management trends: research results. *Virtual Economics*, *2*(1), 31-48.

Eden, L., & Nielsen, B. B. (2020). Research methods in international business: The challenge of complexity. *Journal of International Business Studies*, *51*(9), 1609-1620

Emmanuel, H. (2020). Agency Banking Practices And Non-Financial Performance Of Commercial Banks In Rwanda. *East African Journal Science, 10*(10).

Fellows, R. F., & Liu, A. M. (2021). *Research methods for construction*. John Wiley & Sons.

Gathogo, J. M. (2023). *Moderating Effect Of Bank Size On The Factors Affecting Financial Performance Of Listed Commercial Banks In Kenya* (Doctoral dissertation, Kca University).\

Ghauri, P., Grønhaug, K., & Strange, R. (2020). *Research methods in business studies*. Cambridge University Press.

Gupta, A., Sharma, A., & Goel, A. (2017). Review of regression analysis models. *Int. J. Eng. Res. Technol*, *6*(08), 58-61.

Jemima, J. M. (2018). *Moderating Effect Of Bank Size On The Relationship Between Agency Banking And Growth Of Commercial Banks In Eldoret Town, Kenya* (Doctoral dissertation).

Kamya, M. (2022). *Agency banking and financial performance of commercial banks in Uganda: A case study of Centenary Bank* (Doctoral dissertation, Nkumba University).

Kara, H. (2020). *Creative research methods: A practical guide*. Policy Press.

Karimi, K. L. (2018). Effects of Agency Banking on Bank Performance: A Case of Equity Bank Meru Branch, Kenya. *Business and Economic Research* 8(4)

Khater, A. H. O., Omer, M. S., Khatarna, A. A. A., Osman, M. E. M. I., & Osman, I. Y. I. (2020). Customers Intention to Use Internet Banking: Age as a Moderator Variable. *International Journal of Scientific & Technology Research*, *9*(3), 6541-6548.

Khater, A. H. O., Omer, M. S., Khatarna, A. A. A., Osman, M. E. M. I., & Osman, I. Y. I. (2020). Customers Intention to Use Internet Banking: Age as a Moderator Variable. *International Journal of Scientific & Technology Research*, *9*(3), 6541-6548.

King, M. L. (2018). Testing for autocorrelation in linear regression models: A survey. In *Specification analysis in the linear model* (pp. 19-73). Routledge.

Kiplagat, K. E. (2020). *Effects of prudential regulations on financial performance of commercial banks in Kenya* (Doctoral dissertation, Egerton University).

Kiplagat, K. E., & Kalui, F. (2020). Prudential regulations and financial performance of Commercial Banks in Kenya. Research Journal of Finance and Accounting, 11(14), 37-51.

Kirimi, P. N., Kariuki, S. N., & Ocharo, K. N. (2022). Moderating effect of bank size on the relationship between financial soundness and financial performance. *African Journal of Economic and Management Studies*, *13*(1), 62-75.

Kustina, K. T., Dewi, G. A. A. O., Prena, G. D., & Suryasa, W. (2019). Branchless banking, third-party funds, and profitability evidence reference to banking sector in indonesia. *Jour of Adv Research in Dynamical & Control Systems,(11)*, *2*, 290-299.

Mazambani, L., Rushwaya, T. J., & Mutambara, E. (2018). Financial inclusion: Disrupted liquidity and redundancy of mobile money agents in Zimbabwe. *Investment management and financial innovations*, (15, Iss. 3), 131-142.

Mbugua, I. N. & Omagwa, J. (2017). Agency banking and financial performance of commercial banks in Embu County, Kenya. International Academic Journal of Economics and Finance, 2(3), 348-367

McKinley, J., & Rose, H. (Eds.). (2019). *The Routledge handbook of research methods in applied linguistics*. Routledge.

Merhi, M., Hone, K., Tarhini, A., & Ameen, N. (2021). An empirical examination of the moderating role of age and gender in consumer mobile banking use: a cross-national, quantitative study. *Journal of Enterprise Information Management*, *34*(4), 1144-1168.

Mukuria, P. N., & Memba, F. The Relationship between Challenge Liquidity Of Agency Banking And Profitability Of Agency Banks in Kisii County, Kenya.

Mwangi, T. N., & Kalui, F. (2022). Agency banking as an Alternative Banking Services Delivery Channel and Financial Performance of Commercial Banks in Kenya. *Journal of Finance and Accounting*, *2*(2), 1-10.

Mwariri, P. M., & Awuor, E. (2020). Influence of Adoption of Agency Banking Strategy on the Financial Performance of Micro-Finance Institution in Nanyuki Town, Kenya. *Journal of Finance and Accounting*, *4*(4), 25–35.

Mwenda, L. (2018). *Effect of Prudential Regulations on Financial Performance of Microfinance Banks in Kenya* (Doctoral dissertation, University of Nairobi).

Ndirangu, E., & Kimani, J. (2022). Effect of Agency Banking on Performance of Microfinance Banks in Kenya. *International Journal of Finance and Accounting*, *7*(5), 1–16. https://doi.org/10.47604/ijfa.1720

Nielsen, B. B., Eden, L., & Verbeke, A. (2020). Research methods in international business: Challenges and advances. *Research methods in international business*, 3-41.

Nyambura, J. T. (2019). Effect of Agency Banking Transactions on Financial Performance of Small Scale Enterprises in Kiambu Town, Kenya. *Kenyatta University Repository*

Nyambura, J. T. (2019). Effect Of Agency Banking Transactions On Financial Performance Of Small Scale Enterprises In Kiambu Town, Kenya.

Nyota, J., & Muturi, W. (2019). Effect of agency banking features on the financial performance of commercial banks in Kenya: A case of Equity Bank-Kisii, Nyamira and Keroka Branches-Kenya. *International Journal of Economics Commerce & Management*, *7*(11), 646-662.

Oburu, K. N. (2018). *Effect of Agency Banking on the Financial Performance of Commercial Banks in Kenya* (Doctoral dissertation, university of nairobi).

OKAYO, P. (2022). *An analysis of effect of agency banking on profitability of banks in Kenya: A case of Kenya commercial bank* (Doctoral dissertation).

Ombongi, B. (2021). *The Effect of Agency and Mobile Banking on Liquidity of Commercial Banks in Kenya* (Doctoral dissertation, University of Nairobi).

Omete, F. I. (2023). *Financial Intermediation Efficiency and Performance of Commercial Banks Listed On the Nairobi Securities Exchange in Kenya* (Doctoral dissertation, JKUAT-COHRED).

Özcan, I. Ş. I. K., & Ersoy, E. (2022) Bank Age And Financial Performance: Is The Relationship Linear Or Nonlinear? Evidence From Listed And Unlisted Commercial Banks In China. *Finans Ekonomi ve Sosyal Araştırmalar Dergisi*, *7*(4), 893-906.

Pickens, M. (2023). Nationwide Impact of Agents in Brazil

Rafiq, S., Salim, R., & Smyth, R. (2016). The moderating role of firm age in the relationship between R&D expenditure and financial performance: Evidence from Chinese and US mining firms. *Economic Modelling*, *56*, 122-132.

Rahman, J.M. And Yilun, L. (2021). Firm size, firm age, and firm profitability: Evidence from China. *Journal of Accounting, Business and Management*, 28(1), 101-115.

Ringo, N. D., Mayala, N. M., & Amos, A. A. L. (2022). Effects of Deposits through Agency Banking on Profitability of the National Microfinance Bank in Moshi Municipality, Tanzania.

Riro, J. M., & Mbuva, G. (2023). Joint influence of customer credit checks, credit risk assessment and credit policy compliance on loan performance of commercial banks listed at the Nairobi Securities Exchange, Kenya. *International Academic Journal of Economics and Finance*, *3*(10), 335-348.

Rose, H., McKinley, J., & Baffoe-Djan, J. B. (2019). *Data collection research methods in applied linguistics*. Bloomsbury Academic.

Rossi, M. (2016). The impact of age on firm performance: A literature review. *Corporate Ownership & Control*, *13*(2), 217-223.

Said, F., M. & Kaplelach, S. (2019). Mobile Banking Innovation and Financial Performance of Selected Commercial Banks in Kenya, Journal of Finance and Accounting, Vol. 3(3), 228-254.

Thanem, T., & Knights, D. (2019). *Embodied research methods*. Sage.

APPENDICES

Appendix I: Data Collection Sheet

Year/Variable	% of cash generated through agency banking	Amount of commission earned through agency banking	% market share through agency banking	Operating costs	Operating income	Total assets	Net income	Total equity
2018								
2019								
2020								
2021								
2022								

Appendix II: Approval

KENYATTA UNIVERSITY
OFFICE OF THE EXECUTIVE DEAN GRADUATE SCHOOL

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

FROM: Executive Dean, Graduate School **DATE:** 24th June 2024

TO: Mr. Mukhtar Hassan Matan **REF:** D58F/CTY/PT/22229/2022
c/o Department of Accounting and Finance

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

This is to inform you that Graduate School Board, at its meeting on 19th June 2024, approved your Research Proposal for the M.Sc. Degree entitled, ***Agency Banking and Profitability of Commercial Banks Listed at Nairobi Securities Exchange, Kenya".***

You may now proceed with your Data collection, subject to clearance with the Director General, National Commission for Science, Technology, Kenyatta University.

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 thesis before submitting it to Graduate School for examination as per the Commission for University Education and Kenyatta University guidelines.

Thank you.

ANGELA KIMARU
FOR: EXECUTIVE DEAN, GRADUATE SCHOOL

CC. Chairman, Department of Accounting and Finance

Supervisors:

1. Dr. Moses Aluoch
c/o Department of Accounting and Finance
Kenyatta University

2. Dr. Mark Suva
c/o Department of Accounting and Finance
Kenyatta University

Appendix III: Authority Letter

KENYATTA UNIVERSITY
OFFICE OF THE EXECUTIVE DEAN GRADUATE SCHOOL

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P.O. Box 43844, 00100
NAIROBI, KENYA
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Our Ref: D58F/CTY/PT/22229/2022 DATE: 24th June 2024

Director General,
National Commission for Science, Technology and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MR. MUKHTAR HASSAN MATAN - REG. NO. D58F/CTY/PT/22229/2022

I write to introduce Mr. Mukhtar Hassan Matan who is a Postgraduate Student of this University. He is registered for M.sc degree programme in the Department of Accounting and Finance.

Mr. Mukhtar Hassan Matan intends to conduct research for a M.sc. Thesis Proposal entitled, *"Agency Banking and Profitability of Commercial Banks Listed at Nairobi Securities Exchange, Kenya".*

Any assistance given will be highly appreciated.

Yours faithfully,

for PROF. ELIUD N.M.NJAGI
AG.EXECUTIVE DEAN, GRADUATE SCHOOL

Appendix IV: Study Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 127648

Date of Issue: 02/August/2024

RESEARCH LICENSE

This is to Certify that Mr., Mukhtar Hassan Matan of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in on the topic: Agency banking and profitability of commercial banks listed at Nairobi securities exchange, Kenya. for the period ending : 02/August/2025.

License No: NACOSTI/P/24/38532

127648

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION.

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THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013 (Rev. 2014)
Legal Notice No. 108: The Science, Technology and Innovation (Research Licensing) Regulations, 2014

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was the established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

CONDITIONS OF THE RESEARCH LICENSE

1. The License is granted subject to provisions of the Constitution of Kenya, the Science, Technology and Innovation Act, and other relevant laws, policies and regulations. Accordingly, the licensee shall adhere to such procedures, standards, code of ethics and guidelines as may be prescribed by regulations made under the Act, or prescribed by provisions of International treaties of which Kenya is a signatory to
2. The research and its related activities as well as outcomes shall be beneficial to the country and shall not in any way;
    i. Endanger national security
    ii. Adversely affect the lives of Kenyans
    iii. Be in contravention of Kenya's international obligations including Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
    iv. Result in exploitation of intellectual property rights of communities in Kenya
    v. Adversely affect the environment
    vi. Adversely affect the rights of communities
    vii. Endanger public safety and national cohesion
    viii. Plagiarize someone else's work
3. The License is valid for the proposed research, location and specified period.
4. The license any rights thereunder are non-transferable
5. The Commission reserves the right to cancel the research at any time during the research period if in the opinion of the Commission the research is not implemented in conformity with the provisions of the Act or any other written law.
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12. Research, findings and information regarding research systems shall be stored or disseminated, utilized or applied in such a manner as may be prescribed by the Commission from time to time.
13. The Licensee shall disclose to the Commission, the relevant Institutional Scientific and Ethical Review Committee, and the relevant national agencies any inventions and discoveries that are of National strategic importance.
14. The Commission shall have powers to acquire from any person the right in, or to, any scientific innovation, invention or patent of strategic importance to the country.
15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

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Website: www.nacosti.go.ke

Appendix V: Raw Secondary Data Used for Analysis

Agency banking liquidity	Agency banking fee	Agency banking market share	Agency banking perceived risks	Bank Size	Interaction term	Profitability	Agency Banking
0.55	3.6	2.26	1.15	2.79	5.86	0.57	7.55
0.5	3.48	2.23	1.11	3.39	4.98	0.35	7.32
0.5	3.48	2.1	1.11	3.46	4.96	0.11	7.19
0.5	3.4	2.08	1.11	6.14	4.58	0.09	7.09
0.5	3.4	1.2	1.11	5.32	4.55	0.08	6.22
0.5	3.37	1.18	1.08	5.02	4.18	0.08	6.12
0.5	3.04	1.18	1.08	4.98	4	0.07	5.8
0.5	3.01	1.15	1.08	4.92	3.95	0.05	5.73
0.5	3.01	1.15	1.08	4.91	3.91	0.05	5.73
0.46	3.01	1.11	1.08	4.54	3.81	0.04	5.66
0.45	3.01	1.11	1.04	4.53	3.78	0.02	5.62

0.45	2.84	1.08	1.04	4.47	3.72	0.01	5.42
0.45	2.83	1.08	1.04	4.45	3.59	0.01	5.41
0.45	2.82	1.04	1.04	4.36	3.58	0.01	5.36
0.45	2.82	1.04	1.04	4.25	3.54	0	5.36
0.45	2.79	1	1	4.25	3.43	0	5.24
0.44	2.78	0.95	1	4.18	3.38	0	5.18
0.44	2.75	0.95	1	4.14	3.26	0	5.15
0.44	2.74	0.9	1	4	3.21	0	5.08
0.44	2.74	0.85	1	3.99	3.19	0	5.03
0.44	2.73	0.85	0.95	3.86	2.96	0	4.98
0.44	2.73	0.85	0.95	3.84	2.95	-0.01	4.97
0.42	2.73	0.85	0.95	3.82	2.87	-0.01	4.94
0.42	2.68	0.85	0.9	3.81	2.84	-0.01	4.85

0.42	2.68	0.85	0.9	3.8	2.72	-0.01	4.85
0.4	2.66	0.78	0.9	3.8	2.68	-0.01	4.74
0.4	2.6	0.78	0.9	3.78	2.68	-0.02	4.68
0.4	2.57	0.78	0.85	3.75	2.65	-0.02	4.59
0.4	2.57	0.7	0.85	3.71	2.54	-0.03	4.52
0.4	2.57	0.7	0.85	3.65	2.4	-0.04	4.52
0.4	2.48	0.7	0.85	3.63	2.09	-0.04	4.43
0.4	2.42	0.7	0.78	3.63	2.08	-0.08	4.29
0.4	2.38	0.6	0.78	3.61	2.04	-0.1	4.16
0.38	2.36	0.6	0.78	3.59	2.02	-0.11	4.13
0.38	2.36	0.6	0.78	3.51	1.67	-0.12	4.12
0.36	2.36	0.48	0.78	3.49	1.61	-0.13	3.98
0.36	2.33	0.48	0.7	3.48	1.2	-0.13	3.87

0.36	2.31	0.48	0.7	3.47	0.98	-0.14	3.85
0.36	2.31	0.48	0.7	3.44	0.79	-0.15	3.85
0.36	2.31	0.48	0.7	3.43	0.75	-0.18	3.85
0.36	2.31	0.3	0.7	3.26	0.72	-0.18	3.67
0.33	2.29	0.3	0.7	3.26	0	-0.19	3.63
0.33	2.27	0.3	0.6	3.23	0	-0.19	3.51
0.33	2.27	0.3	0.6	3.01	0	-0.2	3.51
0.33	2.27	0.3	0.6	2.89	0	-0.2	3.51
0.33	2.27	0.3	0.6	2.81	2.09	-0.21	3.51
0.33	2.26	0.3	0.6	2.68	3.49	-0.23	3.49
0.33	2.18	0.3	0.6	2.68	3.7	-0.32	3.42
0.33	2.18	0.27	0.6	2.68	2.54	-0.32	3.38
0.3	2.14	0.17	0.48	2.62	4.04	-0.36	3.09

0.3	2.14	0.11	0.48	2.54	4.09	-0.46	3.03
0.3	2.12	0.08	0.48	2.52	4.58	-0.64	2.98
0.3	2.09	0.04	0.48	2.38	4.74	-0.78	2.9
0.3	2.05	0.04	0.3	1.66	3	-0.89	2.68
0.3	2.03	0.04	0.3	1.56	3.22	-1	2.67
0.27	2.01	0.03	0.3	3.26	1.96	-1.17	2.62
0.27	1.99	0.03	0	3.3	3.56	-1.75	2.29
0.27	1.76	0.02	0	3.12	2.18	-2.65	2.05
0.27	1.11	0	0	3.54	3.95	-4.14	1.39
0.27	0.78	0	0	3.45	3.84	-0.16	1.05

Source: Researcher, (2024)