

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

**Mukhtar Hassan Matan.**

Master of Science Finance Student, Department of Accounting and Finance, School of Business, Economics and Tourism, Kenyatta University, Kenya.

**Dr. Moses Odhiambo Aluoch (PhD).**

Department of Accounting and Finance, School of Business, Economics and Tourism, Kenyatta University, Kenya.

**Dr. Mark Suva (PhD).**

Department of Accounting and Finance, School of Business, Economics and Tourism, Kenyatta University, Kenya.

©2024

**International Academic Journal of Economics and Finance (IAJEF) | ISSN 2518-2366**

**Received:** 16<sup>th</sup> October 2024

**Published:** 23<sup>rd</sup> October 2024

Full Length Research

**Available Online at:** [https://iajournals.org/articles/iajef\\_v4\\_i3\\_229\\_247.pdf](https://iajournals.org/articles/iajef_v4_i3_229_247.pdf)

**Citation:** Matan, M. H., Aluoch, M. O., Suva, M. (2024). Agency banking and profitability of commercial banks listed at Nairobi Securities Exchange, Kenya. *International Academic Journal of Economics and Finance*, 4(3), 229-247.

## **ABSTRACT**

Despite the instrumental role played by listed commercial banks in Kenya in terms of employment creation, these institutions are currently facing problems of the profitability. For instance, across the period 2018-2022, the value of return on equity has averaged at 13.15% against similar industry figures in South Africa estimated at 20.15%. This provide a clear indication that majority of the listed commercial banks in Kenya are underutilizing their equities to generate profits for shareholders. The inquiry's essence was to establish the effect of agency banking liquidity agency banking fee and bank size on profitability. The transaction cost theory, market power theory and public interest theory of bank regulation. Relevant empirical studies were reviewed to inform the development of the conceptual framework anchored the inquiry. Positivist philosophy and explanatory design were used. The study adopted direct regression model and moderation regression model to achieve the analysis of the findings. This study targeted 12 listed commercial banks in Kenya and census was used since the population is small. Information in its secondary nature will be

gathered with aid of data collection SPSS for descriptive analysis as well as inferential analysis aided by the sheet on a period from 2018 all trough to 2022. Prior to this, diagnostic tests covering Heteroscedasticity Test, multicollinearity and normality were done and appropriately interpreted. Results presentation was in tabular and graphical means. As part of the ethical concern, the study sought for relevant authorization documents. The study established that agency banking fee had significant effect on profitability of the listed commercial banks in Kenya. Furthermore, firm size was not significant while interaction term was significant and hence firm size as deduced to be a partial moderator variable. In conclusion, agency banking was a significant predictor of profitability of a financial institution. It was recommended larger banks in tier I and II should leverage the economies of scale they enjoy in the market to invest heavily in agency banking for more profit generation.

**Keywords:** Agency Bank, Fee, Profitability, Bank Size.

## **INTRODUCTION**

Profitability, especially pegged on return on equity (ROE) and return on asset (ROA) 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, Kamy (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 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 in 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.

### **Agency Banking**

AB is a model that allow 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 AB model and the volume of transactions moved by customers through agency banking (Alam, Bhowmik and Bhowmik, 2020). Thus, AG market share would increase whenever there is an increase in the number of users of AB 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).

## **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 of 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 below:

*Table 1: Kenyan Banks' Profitability on the Study Period*

<b>Year</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Average</b>
ROE (%)	14.39%	15.16%	8.21%	14.29%	13.72%	13.15%

*Source: CBK (2023)*

From Table 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.

## **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 AB and FP 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 FP. On the other hand, the volume of withdrawals as well as loan deposits moved through AB was found to negatively impact FP of an institution.

Emmanuel (2020) argued that AB 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 FP. Ringo, Mayala and Amos (2022) indicated that deposits moved through AB have direct implication on FP of the bank. Oburu (2018) established that AB services and the market share were positively linked with each other. Ndirangu and Kimani (2022) established AB to be significant.

### **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.

### **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.

### **Statement of the Problem**

Despite the instrumental role played by listed commercial banks in Kenya in terms of employment creation, these institutions 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). This provide a clear indication that majority of the listed commercial are underutilizing their equities to generate profits for shareholders (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) who focused on Bangladesh analyzing the implication of AB and FP 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 AB 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, Kanya (2022) evaluated AB 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 AB and FP 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 AB 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 Kanya (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.

## **Objectives of the Study**

### **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.

### **Specific Objectives**

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

### **Research Hypotheses**

The study tested the following hypotheses:

**H<sub>01</sub>:** Agency banking fee has no statistically significant effect on profitability of commercial banks listed at Nairobi Securities Exchange, Kenya.

**H<sub>02</sub>:** Bank size is not a statistically significant moderator in the relationship between agency banking and profitability of commercial banks listed at Nairobi Securities Exchange, Kenya.



## **LITERATURE REVIEW**

### **Theoretical Review**

#### **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 AB contributes towards reduction in transaction costs for superior profitability of banks. Thus, the theory underpinned agency banking fee objective variable developed in the present study.

### **Empirical Literature Review**

#### **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. Nyambura (2019) determined the effect of AB related transactions on FP of small firms in Kiambu. 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 AB on FP 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 AB 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 have a positive effect on the profitability of the banks.



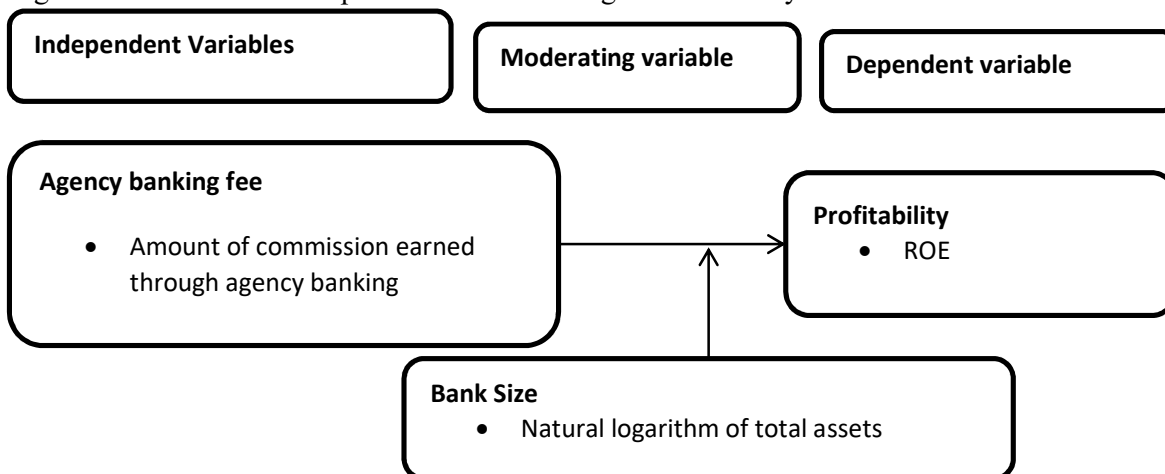
### **Agency Banking, Bank Size and Profitability**

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. The adopted design was explanatory in nature and the analysis was able to point out that bank size was a significant moderator variable.

### **Conceptual Framework**

Figure 1 below is the conceptual framework that guided the study



*Figure 1: Conceptual Framework*

## **RESEARCH METHODOLOGY**

### **Research Philosophy**

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.

**Research Design**

Research design is a plan or strategy that determines how information in the study is to be gathered and processed to generate results (Fellows & Liu, 2021). This study will adopt 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 cause 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.

**Empirical Model**

The study adopted two regression models to achieve the analysis of the findings. 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:

Baron and Kenny (1986) aided moderation effect testing

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \epsilon \dots\dots\dots(3.1)$$

**Where:**

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

$\beta_0$  = Constant Term

$\beta_1$  Regression coefficients

$X_i$ = Agency banking (as a composite score of agency banking fee,) of bank  $i$  at time  $t$

$\epsilon$ = error term

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 BS_{it} + \epsilon \dots\dots\dots(3.2)$$

**Where:**

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

$\beta_0$  = Constant Term

$\beta_1 - \beta_3$ = Regression coefficients

$X_i$ = Agency banking (as a composite score) of bank  $i$  at time  $t$

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

$\epsilon$ = error term

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 BS_{it} + \beta_3 X_{it} * BS_{it} + \epsilon \dots\dots\dots(3.3)$$

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.

### **Target Population**

Twelve listed banks in Kenya were targeted followed by adoption of census. Hence all these banks were included in the study. According to Thanem and Knights (2019), census is appropriate in a population with less than 200 elements which is the same case with this proposed study.

### **Data Collection Instrument**

Information in its secondary form was gathered in this study on a period of five years (2018-2022). 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.

### **Data Collection Procedure**

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.

### **Data Analysis and Presentation**

To analyze data is to create meaning from the hard and raw facts that will have been obtained from the field (Ghuri, 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 essence of running inferential statistics that entailed regression analysis was to test the formulated hypotheses in this study. The hypotheses were tested at 5% level of significance based on p-values that had been determined from the regression analysis.

## **DATA ANALYSIS, PRESENTATION AN DISCUSSION**

### **Introduction**

Once information had been gathered, it underwent transformation and processing to come up with results. This chapter therefore captures the detail of how the analysis of the findings was done with discussion of the same.

### **Summary of Descriptive Statistics**

Consider Table 1.

*Table 1: Summary of Descriptive Statistics*

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
Agency banking fee	60	.78	3.60	2.5259	.51282
Bank Size	60	1.56	6.14	3.6268	.83474
Profitability	60	-4.14	.57	-.2647	.69710

**Source: Research Data (2024)**

Findings in Table 1 are that 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 banking 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 financial performance. 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.

**Regression Results Linking Agency Banking and Profitability**

Table 2 gives model summary evidence

*Table 2: Regression Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.809 <sup>a</sup>	.655	.630	.42419

The findings in Table 2 show the value of adjusted R-square 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 4.7.

A breakdown of the findings of the regression beta coefficients and significance is as presented in Table 3

*Table 3: Beta Coefficients and Significance*

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.527	.955		.552	.583
Agency banking fee	.261	.102	.118	2.559	.030

**Source: Research Data (2024)**

From Table 3, the study noted that agency banking fee ( $\beta=0.261$ ,  $p=0.030<0.05$ ), was established to have significant effect on profitability. This then implies that AG is a significant predictor of profitability of a financial institution.

### Bank Size, Agency Banking and Profitability

Table 4 is model summary testing moderation.

Table 4: Model Summary for Moderation Testing

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.662 <sup>a</sup>	.439	.429	.52674	.439	45.335	1	58	.000
2	.679 <sup>b</sup>	.461	.442	.52088	.022	2.313	1	57	.134
3	.736 <sup>c</sup>	.541	.517	.48455	.081	9.868	1	56	.003

Source: Research Data (2024)

The most important parameter in Table 4 as far as moderation testing is concerned is the value of R-square 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-square change was 0.081. The two R-square change provide strong evidence of possibility of bank size as a moderator variable. Table 5 gives ANOVA evidence.

Table 5: ANOVA findings for Moderation Testing

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.579	1	12.579	45.335	.000 <sup>b</sup>
	Residual	16.092	58	.277		
	Total	28.671	59			
2	Regression	13.206	2	6.603	24.337	.000 <sup>c</sup>
	Residual	15.465	57	.271		
	Total	28.671	59			
3	Regression	15.523	3	5.174	22.039	.000 <sup>d</sup>
	Residual	13.148	56	.235		
	Total	28.671	59			

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 6 gives an overview of the findings of beta coefficients and significance:

Table 6: Beta Coefficients for Moderation Testing

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
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: Research Data (2024)

From the results in Table 6, agency banking as a composite score ( $\beta=0.334$ ,  $p<0.05$ ) was found to be significant. In model 2, firm size after its introduction was not significant ( $\beta=-0.162$ ,  $p>0.05$ ). In model 3, firm size ( $p>0.05$ ) while interaction ( $p<0.05$ ). This means that firm size was a partial moderating variable.

### **Hypotheses Testing and Discussion**

**H<sub>01</sub>:** Agency banking fee has no significant effect on profitability. It emerged that agency banking fee ( $\beta=0.261$ ,  $p=0.030<0.05$ ) and hence hypothesis H<sub>02</sub> was rejected. 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) indicated existence of significant nexus in the variables that were covered. Nyota and Muturi (2019) determined the effect of AB on FP 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 AB 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 profitability of the banks.

The study had the fifth hypothesis being **H<sub>02</sub>:** firm size does not significantly moderate the relationship between agency banking and profitability. The findings indicated that firm size while firm size after its introduction was not significant ( $\beta=-0.162$ ,  $p>0.05$ ) in model and model 3, interaction term was significant ( $p<0.05$ ). Thus, the study rejects hypothesis H<sub>05</sub> 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)

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Conclusions**

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. 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.

### **Contribution of the Study to Body of Knowledge**

Agency banking is a new and evolving model that has been widely adopted in the financial industry in Kenya and the world at large to boost and enhance profitability. 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 achieved the desired benefits. The size of financial institutions in terms of their asset baes is also an important consideration in predicting the revenues and thus profits likely to be generated from the agency model. In particular, large banks can leverage the economies of scale they enjoy in the market to heavily invest and improve on the existing agency banking infrastructures and models to achieve superior profits from operations.

### **Recommendations of the Study**

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 noted that firm size was a partial moderator variable. Thus, larger banks in tier I and II should leverage the economies of scale they enjoy in the market to invest heavily in agency banking for more profit generation.

### **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.
- Dźwigoń, 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.
- 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.