EFFECT OF FINANCIAL MARKET SECURITIES ON PERFORMANCE OF COMMERCIAL BANKS IN NYERI COUNTY, KENYA

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A Thesis Submitted to the School of Business and Economics in Partial Fulfillment of the Requirements for the Conferment of the Degree of Masters of Business Administration (Finance Option) of Kenya Methodist University

JULY, 2023

DECLARATION AND RECOMMENDATION

Declaration

I declare this thesis is my original work that has never been presented in any other university for award of any degree or diploma.

Sign: …………………………...   Date: ……………………….

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BUS-3-0066-1/2022

Recommendations

This thesis has been recommended by the university supervisors for the examination purposes.

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DEDICATION

This thesis is dedicated to my parents Elizabeth Waihuni and Anthony Ndirangu Gathua

ACKNOWLEDGEMENT

ABSTRACT

Commercial banks are supposed to develop products and services that enable increment of revenue in terms of commission and main income. Nevertheless, the Kenyan commercial banks have previously experienced declined profitability from their operations in the financial year 2019/2020. The general objective was to determine the effect of financial market securities on performance of commercial banks in Nyeri County, Kenya. The specific objectives were to evaluate the effect of debt securities, derivative securities, asset-backed securities and equity securities on performance of commercial banks in Nyeri County, Kenya. The study was guided by two theories which were regulatory arbitrage theory and financial intermediation theory. Further, the study considered using quantitative descriptive research design in its plan for data collection. Notably, the target population comprised of 16 commercial banks in Nyeri County, Kenya. The respondents comprised of 194 respondents in various departments. They were stratified and sampled using simple random method to have a sample size of 22 supervisors, 19 internal auditors, 27 customer care officers, 58 personal relationship officers, and 46 teller officers hence a total of 172 respondents. Additionally, the study collected quantitative data in form of questionnaires from the respondents and analyzed financial reports. Further, pre-test study was done at Bank of Africa and Stanbic bank in Nakuru County. Reliability of the questionnaires were examined through Cronbach Alpha Coefficient while face, construct and criterion were the types of validity assessed. The study analyzed descriptive statistics like frequencies, percentages and mean. Other inferential statistics analysis done were linear and multiple regression. The findings were that financial market securities had an R of .715 and R-square of .511 which was translated that it had a 51.1% impact on performance. Additionally, the p-value was 0.007 which was less than 0.05. This therefore was interpreted that financial market securities positively impacted performance in a significant manner. The conclusion on debt securities was that, commercial papers were unattractive to clients due to high risks of poor performance in wealth generation. On derivative securities, banks were effortlessly surpassed by other firms like investment affiliated companies because of unreliable ICT equipment and programming upgrade on their derivatives trading operations. On asset backed securities, there was low public awareness on what exactly asset-backed securities was all about and how clients earn consistent income from investing in it. On equity securities, they attracted very low interest rates which indicated that the invested amounts attracted no substantive income even after a long time. The recommendations on debt securities, the branch managers should develop policy structure that requires mandatory frequent training on staff to understand how not only main stream banking products operate but also securities such as commercial papers. On derivative securities, there is need to involve NSE so as to be guided on the most stable capital markets for incorporation of updated hardware and software. On asset backed securities, the bank marketing department should develop programs that are vibrant towards letting the public know of their financial securities products. On equity securities, the bank's management should develop and strengthen various alternatives that client could use in cases where securities attract low interests.

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ABBREVIATIONS AND ACRONYMS

CBK	Central Bank of Kenya
CBS	Convertible Bonds Securities
CFAI	Certified Financial Analysts Institute
CSE	Casablanca Stock Exchange
FDIC	Federal Deposit Insurance Corporation
KBA	Kenya Bankers Association
KNBS	Kenya National Bureau of Statistics
NPLs	Non-Performing Loans
NSE	Nairobi Stock Exchange
VIF	Variance Inflation Factor

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The traditional banking system which was previously limited to only accepting deposits and issuing loans is changing over time. As a result, commercial banks trade a variety of securities which include debt securities, derivatives securities, asset-backed securities and equity securities, among others to supplement their revenue (Aayale et al., 2022). This is because, banks have realized that too much lending has contributed to increased Non-Performing Loans [NPLs] which has eventually affected the asset quality (Ruzgar & Chua, 2023). Regrettably, as the banks are incorporating financial market securities through trading, their financial performance has been engulfed by various issues.

Globally, American banks have encountered low training of staff on derivative and asset-backed securities (Federal Deposit Insurance Corporation [FDIC], 2019). There has been low uptake of asset-backed securities by clients and competition from other financial institutions in Canada (Faisal et al., 2019). There are ever increasing high operational costs required on debt securities (Deutsche Bank, 2019). There has been high employee turnover and inconsiderate government regulations and taxes in European nations like France (Chhaidar et al., 2022; European Investment Bank [EIB], 2021). Banks in China which is an Asian nation, have experienced low awareness on financial market products and unclear policies that support implementation of derivatives (Hai et al., 2022). In India, there have been limited ICT infrastructure, high risky assets, and staff resistance when a financial

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product like swap derivatives is introduced. In Japan there have been lack of appropriate benchmarking of the suggested products like in asset backed securities.

Regionally, banks in South Africa are struggling with cyber insecurity which has resulted to loss of financial data translated to financial losses. In Nigeria, banks lack qualified staff to run the process of derivative securities trading and also poor management support in giving priority to financial market products (Akintoye et al., 2022; Iheanachor et al., 2021). In East African country like Tanzania, banks have excess bureaucracy which discourages staff to come up with suggestions on improvement of equity securities' products. In Uganda, there are weak contracts protection from the bank particularly on asset-backed securities, poor structure of bad debt provision, and frequent system breakdown which discourages clients from investing their resources to buy securities through digital banking channels.

Locally, there have been inconsistencies on internal communication and low market orientation on types of equity securities (Kariu, 2017). Additionally, banks have faced low funding needed to finance the high cost of innovation required when rolling-out a new product like asset-backed securities (Kariu, 2017). There have also been cases of poor leadership that do not have patience to allow the new product like swap derivative securities undergo the maturity stages hence terminating them prematurely when their performance is low.

Notably, as the banks are undergoing through these issues, the use of financial market securities have complimented their operations to a point that there are fewer lending risks and an improvement on diversity of financial products offered to clients. The previously issued long-term loans are now being securitized and sold as securities to earn more

revenue instead of just allowing the bank's money to remain inactive for long time. The banks have also advanced their way of borrowing in such a way that they are maximizing on debt to fund their operations. The banks have also hedged their resources through allowing derivative securities' issuance to improve the revenue kitty. All these steps have been incorporated towards minimizing various level of risk, improving revenue and making it easier for clients to access their funds, hence the need for financial market securities.

1.1.1 Financial Market Securities

Financial market securities are tradable instruments that a bank trades in a view of raising funds to support its operations (Hai et al., 2022). This study considered debt securities, derivatives securities, asset-backed securities and equity securities as financial market securities. Debt securities actualizes the plan of the bank to access money from clients to fund their operations such as when rolling-out a new product or service seamlessly. The various types of debt securities that a bank issues includes corporate bonds, treasury bills, commercial paper and government bonds, depending on short-term or long-term purpose of the funds that the bank would want to acquire.

Further, a derivative security brings profit to the bank when it sells forward, futures, options and swaps securities, hence allowing clients to accurately speculate and hedge under minimum risks. Notably, the asset-backed securities are able to mix both the equity and debt instruments such that an investor with low-risk appetite could get a product that has both characteristics and cost friendly. Therefore, an investor gets a financial market product that has low price volatility hence stability of some kind (Milos & Milos, 2022). The asset-backed securities include motor vehicle loans, home loans, real estate mortgages and credit

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card receivables (Atsumi & Sakai, 2019). In addition, the equity security holder becomes an owner after purchasing at a specific time hence issued a certificate and is entitled to receive dividends over unspecified period of time. These kinds of securities could find their way on NSE listed stocks or simply are found within the website of the specific bank. Therefore, the Capital Market Authority [CMA] provides guidelines on the format, quantity and the pricing structure that should be followed by financial institution when placing their securities at NSE. The types of equity securities include common stocks, preference shares, money market and fixed income investments.

The trading of these instruments involves working hand in hand with the regulatory authority to facilitate easier access by clients and as well as getting protection from risky securities from other financial institutions not regulated. Financial markets dictate a lot on the growth or the decline of the economy of a nation hence by banks aligning their operations in the market, it boosts their chances of getting more revenue through sales and commissions of securities (Hai et al., 2022). Commercial banks are aggressively finding their way into the financial markets to maximize on the wide range of opportunities offered. This is a place where investors with different risk levels are able to buy and sell securities through a secured financial system that is keenly regulated to weed out any form of malpractices (Ruzgar & Chua-Chow, 2023).

Financial market securities could be likened like the selling and buying of commodities in a normal market place (Muthine, 2021). There could be same type of commodity with different types of sellers hence it all depends with the taste and preference of the buyer. In the financial market, the banks act as sellers of securities whereby the investors have to compare different prices, insurance, ability to get customized securities, risk and other

terms and conditions to purchase them (World Bank, 2022). The banks offer various securities' portfolios to investors to check on the history of each security based on their taste and preference. If they are pleased with a type of security (debt securities, derivatives securities, asset-backed securities and equity securities), they will then buy and sign a contract with the seller especially on the interest payable and other inner details of the security. This signed contract is produced in three e-copies whereby the regulatory authority, the buyer and the seller get a notification on the same. The contract is legally binding to both buyer and seller hence all risk aspects are disclosed at the time of sealing the contract (Ndegwa, 2020). The financial performance of the bank increases especially due to the sales made based on the prices of the securities and also commissions when it offers consultative opinion on the trading process to clients. There have been developments made on financial market securities among commercial banks (Muthine, 2021).

Globally, there have been increased artificial intelligence systems and improved policies that support trading of derivative securities in New York banks (Makridakis, 2017). In Europe, banks are now employing of qualified staff to manage equity securities within the jurisdiction of their operations (European Investment Bank [EIB], 2021). These qualifications could be in terms of both experience and academic background. Regionally, commercial banks have provided debt securities such as bonds that have a wider lifespan so as to minimize risk of inflation in Nigeria (Ejike & Cird, 2019). Locally, there has been enactment of institutional policies that allow transactions of asset backed securities and issuance of Eurobonds. These developments have improved revenue in terms of commission and main income hence performing satisfactorily (Bosonalfa, 2019).

1.1.2 Financial Performance

Financial performance is the ability of a bank to fully utilize the shareholder's resources it has control over to make profits by competitively offering various products and services (Kenya Bankers Authority [KBA], 2019). It is the sole purpose of commercial banks to always make improvements of the invested shareholders money through active investments. Just like any other form of business, the shareholders who are the owners of the banks, have high expectations from their employees. They always expect profitable banking business which do not expose their investments into risky business ventures.

Therefore, by employing qualified staff, they mainly expect that the decision made are both profitable and considerate towards ensuring that the banking business is a going concern (Ndungu & Bosire, 2020). In line with these thoughts, the increased number of financial institutions such as Banks, micro finance institutions, and digital lenders, have made the deposit and lending business competitive (World Bank, 2022). Therefore, the management of commercial banks have had to think of ways that they could incorporate more products and services so as to improve their revenue. Commercial banks that have failed to do so, have been forced to close down since their performance is highly pegged on the revenue flow from their operations. Therefore, this revenue flow is assessed from time to time through various ways (Talreja & Hayat, 2023).

In this study, financial performance was measured through gross profit, net profit, return on assets, and return on equity (CBK, 2021; Talreja & Hayat, 2023). Gross profit is the total income that a bank generates at a particular time. Net profit is the income left in a bank after all the expenditures have been deducted. Return on assets is any income generated as a result of the bank making investments. Return in equity is any income that

a bank has made from the shareholders capital. Therefore, the study considered these four ways of measuring performance since they have been used by regulatory institutions such as Central bank of Kenya [CBK]. Additionally, these measures take into account the gross income that the bank has made, income remained after deducting expenses and how much has been made from investments as well as from the capital (Faisal et al., 2019). These aspects are key in determining whether the bank has made any meaningful banking business or not. The conventional banking that has few business operations in financial market securities, registers lower ROA as compared to the banks that have widened their scope to financial markets.

1.1.3 Commercial Banks in Kenya

According to CBK (2021), there are 38 commercial banks licensed and regulated to operate in Kenya. The banks have embraced financial market securities as a means of driving their performance in an effort to raise the investment confidence of stakeholders, the company reputation, and the value to investors. This has been done in an effort to improve the efficiency of commercial banks (Cappiello, 2020). The financial market products in the banking industry have benefited from a series of breakthroughs and improvements made possible by digital banking whose sole purpose is to increase the satisfaction of the clients. Banking has been made easier to do thanks to the proliferation of digital platforms made possible by technological advancements, which have also contributed to the sector's increased productivity (World Bank, 2022). Because of this, the service providers have experienced an ease in the control of their operations, as well as a reduction in their costs, which has led to an increase in their profitability.

Nevertheless, there have been traces of low training of staff; constrained budgets hence unable to incorporate more financial market products and systems. Additionally, there have been lack of management support particularly if they are conventional leaders who still believe that banks could obtain a niche in the lending business. The banks have also been limited by lack of updated policies that ensure that staff have acquired all knowledge needed to operate effortlessly in the new financial market securities (Iheanachor, et al., 2021).

1.1.4 Commercial Banks in Nyeri County

Nyeri county hosted of up to 16 commercial banks branches that were regulated by the CBK at as the financial year 2022/2023(CBK, 2022). It was a county will low poverty rate whereby it has 19.3% in comparison to the overall 45.9% poverty rate in Kenya (Kenya National Bureau of Standards [KNBS], 2019). This meant that the county hosts immense wealth within its borders that could be invested in terms of financial market securities. In this line of thought, most of the economic activities are agricultural related whereby coffee and tea form the major share. Nevertheless, the great potential of Nyeri County was yet to be achieved whereby its main town was downgraded from municipality to township by Transition Authority in 2012 due to its dormancy in terms of revenue generation (Gichure & Mwangi, 2014). This means that despite having all the major commercial banks, the revenue generation was still an uphill task since businesses were still progressively within the low earning brackets.

1.2 Statement of the Problem

Commercial banks are supposed to continuously engage in ethical and profitable business operations that are regulated by central bank. They should engage in the most current financial market securities that seek to improve their product and service intake by the clients (Bosonalfa, 2019). As a result, deposits grow and as well as income generated from transactional fees which improves their financial performance.

Nevertheless, the Kenyan commercial banks have previously experienced declined profitability from their operations in the financial year 2019/2020 (CBK, 2020). In 2020, profits before taxation declined to 134.1 billion which was translated to 17.2%. This was attributed to 11.9% increased expenditures in comparison to 2.9% increase in income from investments and securities trading. Therefore, this means that banks had invested a lot of capital in the process of selling and buying of securities to investors but that translated to very low income hence negatively affecting the overall profitability of the banks (CBK, 2020; Capital Market Authority, 2018).

Past studies such as Aayale et al. (2022); Chidi-Okeke et al. (2023) have addressed how bank and capital markets' performance in general has been influenced by equity securities and bonds respectively. While locally, (Ishak et al., 2021; Muthine 2021; Ndungu, 2020; Obong'o 2020) have addressed how bank's performance has been influenced by different types of asset securitization, derivatives, and bonds respectively. All these studies have agreed that there is a declined profitability issue. The low profitability has pushed selling of banks such as National Bank of Kenya which was sold 100% wholly by KCB group. Further, Transnational bank was also acquired by Access bank due to issues related to performance (CBK, 2020). A continued decline in performance of commercial banks will

definitely affect the overall demand and supply of money in circulation resulting to gradual crash of the economy. Remarkably, there is a gap on ascertaining why the expenditures incurred in sales process of securities are superseding the income generated in Kenyan banks. Therefore, this study would close the gap by investigating the effect of financial market securities on performance of commercial banks in Nyeri County, Kenya.

1.3 General Objective

To determine the effect of financial market securities on performance of commercial banks in Nyeri County, Kenya.

1.4 Specific Objectives

  i.   To evaluate the effect of debt securities on performance of commercial banks in Nyeri County, Kenya.

 ii.   To determine the effect of derivative securities on performance of commercial banks in Nyeri County, Kenya.

iii.   To examine the effect of asset-backed securities practice on performance of commercial banks in Nyeri County, Kenya.

 iv.   To assess the effect of equity securities on performance of commercial banks in Nyeri County, Kenya.

1.5 Research Hypothesis

$H_0 1$: Debt securities had no significant effect on performance of commercial banks in Nyeri County, Kenya.

$H_0 2$: Derivatives securities had no significant effect on performance of commercial banks in Nyeri County, Kenya.

H_03: Asset-backed securities had no significant effect on performance of commercial banks in Nyeri County, Kenya.

H_04: Equity securities had no significant effect on performance of commercial banks in Nyeri County, Kenya.

1.6 Significance of the Study

The findings of the study would mainly benefit the commercial banks' management on the basis of understanding which financial market securities were underutilized in their market niche. This resulted to them shifting their thinking to begin engaging in these new financial market products and operations to expand the income avenue of the shareholders wealth.

The bank customers would also use the results of the study to improve their awareness on various options of bank products that they could invest their resources such as debt securities, derivatives securities, asset-backed securities and equity securities to supplement their income. They would therefore not only view a bank as a source of loans but also a source of other profitable and sustainable ventures.

The policy makers and regulators would also use the findings of the study to come up with viable and realistic policies that incorporate financial market securities. These policies could widen the scope of operations whereby banks are allowed to use advanced digital banking options like use of artificial intelligence banking to reduce cyber theft and money laundering in the banks.

The competitors of commercial banks such as microfinance and Banks could use the study as a benchmarking platform to assess the financial strides that have been made in regards

to innovative financial market financial products and services. They could also practice the same in their institutions to also improve their financial performances. Therefore, when the financial market is robust, the economy becomes stable to absorb any fiscal shocks that could destabilize it.

The study would add new knowledge in finance when the effect of financial practices such as debt securities, derivatives securities, asset-backed securities and equity securities, on performance is known. Future studies could use the findings to provide a basis of their studies towards pushing the banks into utilizing new financial market banking methods away from traditional ones which are operating in difficulties.

1.7 Scope of the Study

The study assessed the effects of financial market securities on performance of commercial banks in Nyeri County, Kenya. It dealt with practices such as debt securities, derivatives securities, asset-backed securities and equity securities. The study collected quantitative data in form of questionnaires and financial reports (balance sheets and income statements from 2019 to 2022). The study's participants were 22 supervisors, 19 internal auditors, 27 customer care officers, 58 personal relationship officers, and 46 teller officers hence a total of 172 respondents. The study took approximately six months to complete.

1.8 Limitations of the Study

The study faced a limitation of diverse methods used to assess financial market securities as used by commercial banks. This is because some practices such as derivatives and asset-backed securities' trading were still undeveloped in Kenya hence there were unclear way that was approved to measure them. Therefore, each bank had their way of measuring them

which was different from the others due to the sensitivity of the information. To curb the limitation, the study used questionnaires to capture information which could easily be measured for the interpretation by the study. This also created confidence to the participants to an extent of not providing excess information while at the same time answering the key questions of the study.

1.9 Assumptions of the Study

The assumptions of the study were that the commercial banks in Kenya have engaged in at least ten transactions related to debt securities, derivatives securities, asset-backed securities and equity securities. The second assumption was that there were few restrictions from their respective banks that limited the respondents from providing accurate information regarding financial market securities.

1.10 Operational Definition of Terms

Asset-backed Securities

This is a financial investment that is collateralized by an underlying pool of assets such as loans.

Commercial Banks

Commercial banks are financial institutions authorized and regulated to accept deposits, offer loans and allow trading of financial securities.

Debt Securities

They are financial market instruments that are issued by a bank to clients with a contract that show that they will be repaid at a later date with interest. This is whereby the latter purchases and a certificate is issued to act as evidence of ownership.

Derivative Securities

They are financial contracts issued to clients whose value is gotten from a principal asset and manages lending risks.

Equity Securities

They are financial market instruments that are traded and show ownership aspect held by the investor/shareholder in a bank.

Financial Market Securities

They are tradable instruments that a bank trades in a view of raising funds to support its operations.

Financial Performance

This is the ability of a bank to fully utilize the shareholder's resources it has control over to make profits by competitively offering various innovative products and services.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the theoretical review based on each objective and as well as the literature review. Thereafter, it presents the conceptual and operational framework.

2.2 Theoretical Review

The study was guided by two theories which were regulatory arbitrage theory and financial intermediation theory. Regulatory arbitrage theory guided asset-backed securities, debt securities and equity securities. Financial intermediation theory guided derivatives securities.

2.2.1 Regulatory Arbitrage Theory

Regulatory arbitrage theory was established by Partnoy (1997) guided asset-backed securities, debt securities and equity securities. This theory indicated that organizations ensured that they capitalized on loopholes of regulations to increase their profitability. This is because the regulations applied uniformly to all institutions hence taking advantage of any gaps with the regulation was the defining moment as far as breaking the profitability ceiling was concerned (Bosonalfa, 2019).

In relation to asset-backed securities as a variable of the study, banks strived to provide clear framework of policies that guided in the securitization process (Mwinga, 2021). Securitization in its basic definition entailed conversion of issued long-term loans into securities so that the bank's money was not held for the duration through which a loan was to be repaid (Kariu, 2017). That is, if a loan took 7 years to repay, it meant that the bank

had to wait patiently till the borrower cleared their loan balance which at times was exposed to the risk of default (Bosonalfa, 2019). Therefore, to ensure that the bank's money issued had been repaid using shortest time possible, the bank converted the loan to securities to earn further commission and interests (Kariu, 2017).

This was done through following the established regulations but noting where loopholes were so as to create a niche, as long as the commercial risk was within manageable limits. Therefore, when the banks were able to create tranches by removing assets from the balance sheet, they reduced the mandatory capital requirements charges through selling them to Special Purpose Vehicle (SPV) (FDIC, 2019). This process of creating tranches in SPV was closely guided by the policies in the institution and those from both the capital market authority and CBK.

In relation to debt securities as a variable of the study, banks too advantage of the regulation to expand their financing structures through issuance of various corporate bonds, treasury bills, commercial paper and connect investors to government bonds. This ensured that their performance remained viable for both short-term and long-term perspective (Gathara et al., 2019). Therefore, the decisions made in regards to whether or not the banks issued debt securities majorly relied on the financial regulation needs and overall organizational goals. Debt securities issuance as a financing system was employed in a bank to increase the chances of expanding their income kitty through commissions and interests.

In relation to issuance of equity securities as a variable of the study, banks took advantage of regulations to float common stocks, preferred shares, money market and fixed income investments to enhance their asset base and increase their worth (Jo et al., 2023). The increment in funding from equity meant that shareholders' number increased, which had

its advantages and disadvantages. The advantage was that capital at dispose was high hence the bank launched even more customized financial market securities since there was enough resources. However, the larger number of the shareholders, the more demanding it was to the bank staff to deliver results and pay high dividends (Hai et al., 2022).

Therefore in regards to the link of the theory to the study, as the banks were ensuring that they identify various loopholes in the regulations to take advantage, they did in full acknowledgement that they did not result to malpractices (Ishak et al., 2021). That is, they took advantage of the regulations to some extent till normal profits were made. Any abnormal profits were a clear indication that there was some level of banking malpractices going on which could eventually lead to low performance especially from the fines resulting to the practices (Muiruri et al., 2021).

2.2.2 Financial Intermediation Theory

Financial intermediation theory was developed by Diamond and Douglas (1984) and guided derivative securities variable of the study. This theory indicated that a bank did not engage in a business operation that had high risks which were not manageable and that resulted to immense losses. Therefore, to ensure this does not happen, the banks engaged in risk hedging function so as to diminish the risk aspect in underlying assets.

In relation to derivative securities as a variable of the study, banks hedging function towards various securities like options, forwards, futures and swaps, ensured that investors worried less on how to consistently monitored the bank (Ndegwa, 2020). This is because, the investors realized that the bank had put enough policies and processes to weed out any underlying assets that exposed the derivatives to financial risks. Therefore, in long-terms

derivatives enhanced financial performance improvement. This theory was used before by a study such as Muthine (2021) in the assessment of how listed commercial bank's performance was affected by trading of financial derivatives.

Therefore in regards to the link of the theory to the study, it was paramount to indicate that investors were most likely to choose less risky securities portfolios but from time to time, they combined less risky and riskier securities in bid of maximizing on their profits (EIB, 2021). Therefore, as bank issued various financial market securities, they did do so to acknowledge the fact that investors had different risk appetites (Aayale et al., 2022). The more securities were issued to clients, the easier it was for them to make decision of purchasing the best combination of securities hence increased income levels of the bank (Aayale et al., 2022).

2.3 Empirical Review

Commercial banks are financial institutions authorized and regulated to accept deposits, offer loans and allow trading of financial securities (Central Bank of Kenya [CBK], 2021). There are variety of securities traded within a banking set-up which include debt securities, derivatives securities, asset-backed securities and equity securities, among others (Mwinga, 2021; Ndegwa, 2020; Nzau et al., 2019; Ruzgar & Chua-Chow, 2023). The use of these financial market by commercial banks have complimented their operations to a point that it minimizes lending risks and improved on diversity of financial products it offers to its clients. The traditional banking system which was previously limited to only accepting deposits and issuing loans is changing over time. This is because, banks have realized that too much lending has contributed to increased Non-Performing Loans [NPLs]

which eventually has affected the asset quality. This means that banks have to incur added expenditures in setting provision for bad debts on defaulted loans (Muiruri, et al., 2021).

Therefore, commercial banks are now gearing up towards complimenting their products and services to allow various financial market securities. The previously issued long-term loans are now being securitized and sold as securities to earn more revenue instead of just allowing the bank's money to remain inactive for long time. The banks have also advanced their way of borrowing in such a way that they are maximizing on bonds to fund its operations (Ishak, et al., 2021). The banks have also hedged their resources through allowing derivative securities' issuance to improve the revenue kitty. All these steps have been incorporated towards minimizing various level of risk, improving revenue and making it easier for clients to access their funds anywhere and anytime.

Therefore, generally investors are risk averse hence will most times choose less risky securities portfolios but from time to time, they may combine less risky and riskier securities in bid of maximizing on their profits. As banks issue various financial market securities, they should do so acknowledge the fact that investors have different risk appetites (Deutsche Bank, 2019). The more securities are issued to clients, the easier it will be for them to make decision of purchasing the best combination of securities hence increase of income levels of the bank.

2.3.1 Debt Securities and Financial Performance

Debt securities are financial market instruments that are issued by a bank to clients with a contract that show that they will be repaid at a later date with interest. This is whereby the latter purchases and a certificate is issued to act as evidence of ownership (Ruzgar & Chua-

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Chow, 2023; European Investment Bank [EIB], 2021). The indicators of debt securities were corporate bonds, treasury bills, commercial paper and government bonds. Corporate bonds are a type of debt securities whereby an institution issues contracts to investors who should receive monthly, quarterly, semi-annual and annual interest payments for short-term or long-term duration (Obong'o, 2020).

Treasury bills are securities issued by the government whose interest payment is done within one year (Nzau et al., 2019). Commercial papers are also similar to treasury bills in the sense that they exist for less than one year but the origin is from a corporate and not government (Chidi-Okeke et al., 2023). Government bonds are securities which exceed one year and whose interest is payable semi-annually or annually by the state (Nzau et al., 2019). Therefore, debt securities enable a bank to access money from clients to be able to funds its banking operations and also when intending to roll-out a new product or service seamlessly. There have been studies documented in relation to how debt securities bring about financial performance.

Notably, Jo et al. (2023) explored on how information was transmitted from Convertible Bonds Securities [CBS] to other types of investment securities' vehicles likes stocks and other bonds. The study was focused on ascertaining how data from CBS could result to either an improvement or decrement on other securities. Through employment of Transfer Entropy [TE], Jo et al. (2023) established that due to different macroeconomic situations, similar information on price fluctuations seemed to flow. Therefore, the study suggested that investors could take this opportunity and invest on the other securities especially when prices seemed profitable on CBS. This meant that det securities such as convertible bonds had a way of influencing the profitability of other securities hence general increment of

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performance of various investment portfolios. However, Jo et al. (2023) examined the influence of CBS on bonds and stock but not any other debt securities such as commercial papers and treasury bills.

Further, Chidi-Okeke et al. (2023) explored on how the performance of Nigeria's capital market was influenced by the market of bonds securities. Through evaluation of a twenty-year period performance span of capital market ending 2021, Chidi-Okeke et al. (2023) found out that both corporate and government bonds had a positive effect on the performance. However, the study complained that there was overdependence of bonds market's allocations and finances as possible sources of funding by government hence chocking the entire capital market's performance. Further, Chidi-Okeke et al. (2023) assessed only the bonds market and not any other market debt securities markets like commercial paper.

Additionally, Obong'o (2020) examined how Kenya banks' liquidity was enhanced through trading of corporate bonds. The attention was accorded to thirty-nine banks in Nairobi County whereby various managers in operations, and marketing were consulted. Pre-test was conducted in 5 banks of Meru County. According to Obong'o (2020), all the four types of corporate bonds like fixed-rate, floating rate, zero coupon and convertible bonds influenced positively the performance of banks. That notwithstanding, Obong'o (2020) noted that there was limited interest and public awareness on the relevance of the bonds towards enhancing both the performance of individual investors and banks. This was mainly contributed by low insurance these debt securities had when market misfortunes took place hence loss of investments. Notably, Obong'o (2020) concentrated with only

managers as the main respondents and not including officers who could offer more financial opinions of the subject matter.

Notably, Nzau et al. (2019) conducted a study to assess how the performance of listed firms was influenced by the issuance of bonds. The study concentrated on the performance of 6 firms that had issued tranches of bonds between 2008 to 2017. It was noted that main bonds aspects like price, coupon rate, proportion and maturity yield affected positively the performance of the firms. However, Nzau et al. (2019) measured performance from the perspective of ROE and not any other measures like ROA and ROI (return on investment).

2.3.2 Derivative Securities and Financial Performance

Derivative securities are financial contracts issued to clients whose value is gotten from a principal asset and manages lending risks (Certified Financial Analysts Institute [CFAI], 2013). The indicators of derivative securities were options, forwards, futures and swaps. An option is a security where the owners have the financial rights to trade an underlying asset at strike or exercise price (Onuora, 2019). A forward is described as a security whereby there is an investor who trades an underlying asset at a pre-organized price but the asset delivered at a coming date (Milos & Milos, 2022). A future is a security whereby the clearing house allows trading of an asset to be delivered at a coming date as a means of hedging against price volatility (Milos & Milos, 2022). A swap is a security where trading occurs after two partied exchange currencies after payments are made (Muthine, 2021). Therefore, a derivative security is a profitable venture that banks engage in order to increase their revenue kits through selling of forward, futures, options and swaps types of derivatives securities, which allow clients to accurately speculate and hedge under

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minimum risks. There have been studies documented in relation to how derivative securities bring about financial performance.

Notably, Milos and Milos (2022) assessed the relationship that existed between market valuations and derivatives securities in European Union. One hundred and twenty financial institutions were involved in the study where their performance dating 2008 to 2017 were considered. According to Milos and Milos (2022), the more derivatives were accumulated the less their market value grew due to increased hedging and market volatility. Therefore, in relation to performance, Milos and Milos (2022) indicated that the derivatives securities should be maintained at average levels so as to indemnify the institution n from unfavorable change of prices. Regrettably, Milos and Milos (2022) did not further examine the purpose of hedging of derivatives by the financial institutions which could have yielded different findings.

Further on, Onuora (2019) examined how Nigeria's economy was affected by the capital market. Among the factors considered, derivative securities were included since they were considered the main financiers of the economy. The study used economy's secondary data performance index from 2001 to 2017. Notably, Onuora (2019) established that capital market did not positively influence the economy growth. This was because the capital market's derivative securities such as futures, swaps and options were not optimally utilized to funds various economy's sectors like transport and health.

Additionally, Ndegwa (2020) investigated how the performance of NSE was influenced by financial derivatives. The study's objectives related to innovation, legal structure and risk management measures employed by the NSE particularly due to trading of the financial derivative securities. Seven listed firms were consulted for data collection process whereby

questionnaires and interview were used. According to Ndegwa (2020), the performance of NSE was still low in Kenya owing to the fact that financial derivative market was still developing with few activities in various securities such as swaps and forwards. The low transactions were further attributed to low advancement of technology especially on trading platforms and monitoring of the systems. Additionally, there was unclear structure of legal framework that guided the operations of financial derivatives. Therefore, since the study was done in listed firms, the current study would extend the same to commercial banks as a measure of assessing how financial derivatives affected their performance. Notably, Ndegwa (2020) did not provide any evidence of pilot test study.

Further, Muthine (2021) explored how listed commercial bank's performance was affected by trading of financial derivatives. The study involved eleven large banks whereby risk, operation, and marketing managers answered questionnaires and there was also collection of secondary data from 2016- 2018 to assess performance of banks. According to Muthine (2021), the sales transactions of derivatives securities like swap was low in the banks. Additionally, in agreement with Ndegwa (2020) there was no completed ICT infrastructure to amicably handle the complicated derivative transactions like futures. There were also no aggressive marketing campaigns by the banks to increase the revenue generated from derivative securities. Notably, Muthine (2021) did not include other financial institutions such as investment banks that were also dealing with financial derivative securities.

2.3.3 Asset-backed Securities and Financial Performance

Asset backed securities are financial investments that are collateralized by an underlying pool of assets such as loans (Deloitte, 2020). They are financial market instruments that are mainly traded at brokerage and in which the investor is able to combine two or more

securities at the time of purchase (Deloitte, 2020). That is, they are able to mix both the equity and debt instruments such that an investor with low-risk appetite could get a product that has both characteristics and cost friendly. Therefore, an investor gets a financial market product that has low price volatility hence stability of some kind. The asset-backed securities include convertible bonds, preferred stock, equity-linked bonds and toggle notes (Atsumi & Sakai, 2019).

The indicators of asset backed securities were motor vehicle loans, home loans, real estate mortgages and credit card receivables. Asset-backed securities are mainly identified by the underlying asset such that when the underlying asset is a motor vehicle loan, they become motor vehicle securities. The same case applies to home loans, mortgages and credit card. There have been studies documented in relation to how asset-backed securities bring about financial performance.

Notably, Ishak et al. (2021) examined how performance of banks was influenced by securitization of assets. Among the aspects considered, asset-backed securities were included in the study. Data was collected from twelve banks in South Asian nations where secondary data was included from 1998 to 2018. According to Ishak et al. (2021), asset backed securities had a positive influence on ROA, size and loan provision. The study also pointed out that in some secondary studies, an increment in securitization of assets increased banks' profits. However, Ishak et al. (2021) considered only ROA as a measure of performance without including other measures such as ROI, ROE and net profit.

In Namibia, Mwinga (2021) conducted a write-up on the development strides that securitization of assets had taken in the nation and the policy issues affecting it. In the perspective of commercial banks, Mwinga (2021) revealed that securitization particularly

from asset-backed securities had increased flow of funds from investors. Further it also decreased default risk since assets backing the securities were mainly loans. Notably, Mwinga (2021) indicated that for securitization to effectively work, there was need to standardize underwriting of mortgages, protection from bankruptcy, and the mortgages must be high worth.

Further, Ndungu (2020) assessed how financial performance of Kenya's listed banks was related to securitization of assets. Asset-backed securities comprised of one of the variables which was descriptive in nature. The study collected data using questionnaires whereby risk, finance compliance, and operations mangers from eleven listed commercial banks were consulted. The study found out that there was a positive influence between asset-backed securities and financial performance of listed banks. It was rather unfortunate that the study found out that the income gotten from asset-backed securities was not sufficient to compliment cost of credit. The study by Ndungu (2020) was done in listed commercial banks hence there is need to expand to Nairobi county's commercial banks and assess whether asset-backed securities have any influence on financial performance.

Further Muiruri et al. (2021) explored how securitization could be a mechanism to finance operations in commercial banks. The study involved the one hundred and seventy-two management team in credit, risk, compliance and mortgage department who answered questionnaires from forty-three commercial banks. According to Muiruri et al. (2021), asset backed securities had more risks as compared to the profits they would bring to the bank. However, when applied modestly, it improved performance in the long-run, hence a way of increasing the adequacy of capital of the banks. Notably, Muiruri et al. (2021) did

not pre-test the questionnaires hence the study was not able to elaborate how it would measure reliability of its instruments.

2.3.4 Equity Securities and Financial Performance

Equity securities are financial market instruments that are traded and show ownership aspect held by the investor/shareholder in a bank (Ruzgar & Chua-Chow, 2023). The equity security holder becomes an owner after purchasing at a specific time hence issued a certificate and is entitled to receive dividends over unspecified period of time. These kinds of securities could find their way on NSE listed stocks or simply are found within the website of the specific bank. The indicators of equity securities included: common stocks, preferred shares, money market and fixed income investments (Gathara et al., 2019; Ndungu & Bosire, 2020). There have been studies documented in relation to how equity securities bring about financial performance.

Notably, Aayale et al. (2022) conducted a study to examine how prices of shares affected the returns of listed banks in Casablanca Stock Exchange [CSE]. The study reviewed the financial performance from 2011-2020. According to Aayale et al. (2022), the prices of stocks did not have any effect whatsoever on profitability or liquidity of the banks among other metrics assessed. Therefore, this raised a concern on the relevance of the CSE in improving performance of the banks. Actually, Aayale et al. (2022) also cited Avoutou (2018) and indicated that the study assessed 58 stock markets in African nations and also established that majority of them were inefficient. Therefore, there is need to extend the study and assess whether equity securities such as common stocks, preferred shares, money market and fixed income investments, have any influence on performance.

Additionally, Ndungu and Bosire (2020) investigated how listed banks at NSE were performing and the causal factors. The study was guided by descriptive research design and selected the banks using census method. Notably, Ndungu and Bosire (2020) used secondary data from reports whereby they discovered that allocated funds to stock had low influence on performance. Nevertheless, Ndungu and Bosire (2020) did not provide further explanation on the causes of low allocation of funds to stock to justify the finding.

Further, Gathara et al. (2019) investigated how NSE's firms were performing and how that relate to their equity. Thirty firms were selected and their financial performance assessed from 2007-2015. These firms were majorly in sectors such as agriculture, automobile, commercial services, construction, energy, manufacturing and telecommunication. The study's findings revealed that the higher the equity securities sold, the higher the performance translated hence a positive influence. However, Gathara et al. (2019) did not include firms in mining sector.

2.4 Research Gaps

The gaps identified on debt securities are that Jo et al. (2023) examined the influence of CBS on bonds and stock but not any other debt securities such as commercial papers and treasury bills. Additionally, Chidi-Okeke et al. (2023) assessed only the bonds market and not any other market debt securities markets like commercial paper. Further, Obong'o (2020) concentrated with only managers as the main respondents and not including officers who could offer more financial opinions of the subject matter. Notably, Nzau et al. (2019) measured performance from the perspective of ROE and not any other measures like ROA and ROI (return on investment).

The gaps identified on derivatives securities are that Milos and Milos (2022) did not examine the purpose of hedging of derivatives by the financial institutions which could have yielded different findings. Further, since Ndegwa's study was done in listed firms, the current study would extend the same to commercial banks as a measure of assessing how financial derivatives affected their performance. Notably, Ndegwa (2020), did not provide any evidence of pilot test study. Additionally, Muthine (2021) did not include other financial institutions such as investment banks that were also dealing with financial derivative securities.

The gaps identified on asset-backed securities are that Ishak et al. (2021) considered only ROA as a measure of performance without including other measures such as ROI, ROE and net profit. The study by Ndungu (2020) was done in listed commercial banks hence there is need to expand to Nairobi county's commercial banks and assess whether asset-backed securities have any influence on financial performance. Notably, Muiruri et al. (2021) did not pre-test the questionnaires hence the study was not able to elaborate how it would measure reliability of its instruments.

The gaps identified on equity securities are that Gathara et al. (2019) assessed equity securities in the agriculture, automobile, commercial services, construction, energy, manufacturing and telecommunication sectors but did not include firms in mining sector. According to Aayale et al. (2022), the prices of stocks did not have any effect whatsoever on profitability or liquidity of the banks among other metrics assessed. Therefore, this raised a concern on the relevance of the CSE in improving performance of the banks. Therefore, there is need to extend the study and assess whether equity securities such as common stocks, preferred shares, money market and fixed income investments, have any

influence on performance. Additionally, Ndungu and Bosire (2020) did not provide further explanation on the causes of low allocation of funds to stock to justify the finding.

2.5 Conceptual Framework

The illustrative depiction on the relationship between the study's variables revealed that the independent variables are debt securities, derivative securities, asset-backed securities and equity securities. The dependent variable was the financial performance as indicated in Figure 2.1.

Figure 2.1

Conceptual Framework

| **Independent variables** | **Dependent variable** |
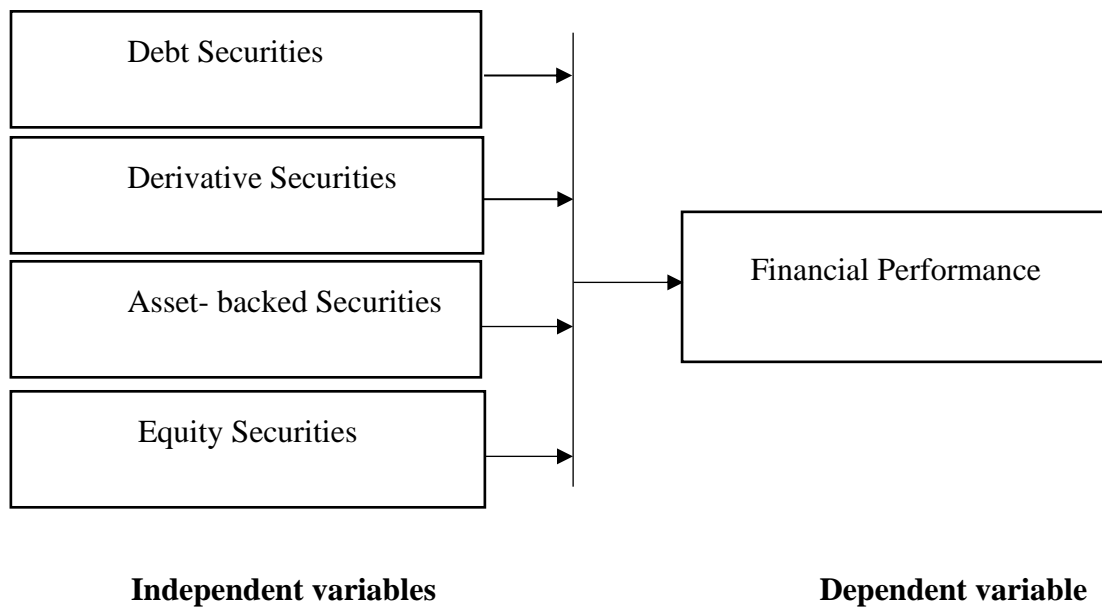
Source: Author (2023)

2.6 Operational Framework

Figure 2.2

Operational Framework
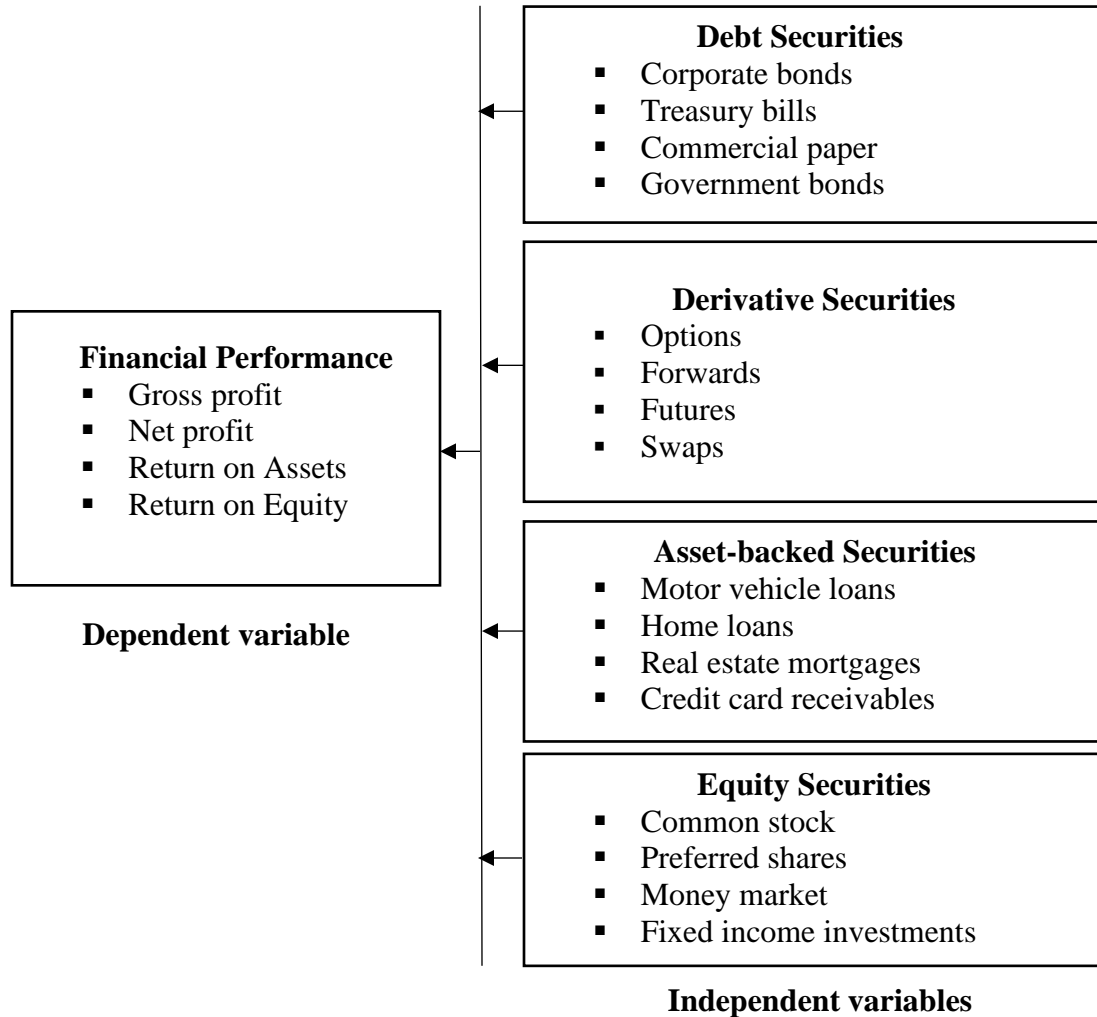
Source: Author (2023)

The indicators of financial performance were gross profit, net profit, return on assets and return on equity. Further, the indicators of debt securities were corporate bonds, treasury bills, commercial paper and government bonds. Additionally, the indicators of derivative securities were options, forwards, futures and swaps. In addition, the indicators of asset

backed securities were motor vehicle loans, home loans, real estate mortgages and credit card receivables. Further, the indicators of equity securities included common stocks, preferred shares, money market and fixed income investments.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter examines the methodology particular on the research design, target population, sampled population, and data collection method. Further, the chapter also encompasses the piloting, reliability, validity, data collection procedures, data analysis and ethical considerations.

3.2 Research Design

The study considered using quantitative descriptive research design in its plan for data collection (Sileyew, 2019). This is in the spectrum of examining how the financial market securities affect performance of banks. Further, the study assessed to what extent, in terms of percentage do debt securities, derivative securities, asset-backed securities and equity securities improved performance. Additionally, the study also used descriptive design to explore when are financial market securities' policies reviewed and where investors placed their investments especially when buying or selling their securities.

3.3 Location of the Study

The study was conducted in commercial banks located in Nyeri County, whose coordinates are 0°25′S 36°57′E in Kenya. Its neighboring counties are Laikipia, Nyandarua, Kirinyaga, Murang'a and Kiambu. It is a former central province administrative headquarters with a population of over 140,338 people.

3.4 Target Population

The target population comprised of 16 commercial banks in Nyeri County, Kenya (CBK, 2022). The respondents comprised of 23 supervisors, 20 internal auditors, 29 customer care officers, 69 personal relationship officers, and 53 tellers (CBK, 2022). These officers were instrumental towards providing relevant information on the buying and selling of financial market securities. The back-office staff were any personnel in charge of providing administrative operations on financial market securities transactions registered in the trading platform. Customer care officers were any personnel whose role was to orient the clients in various financial market securities the bank offers and as well as providing basic financial opinion. Personal relationship officers were in charge of conducting vigorous follow-up operations on prospective clients to seal the deal. They were also in charge of answering all queries related to personal securities issues. A teller was any personnel in charge of receiving securities funds and as well as allowing clients to withdraw profits generated from their securities.

3.5 Sampling Technique

The study stratified the population to reflect supervisors, internal auditors, customer care officers, personal relationship officers, and teller officers. Thereafter, simple random sampling method was used to obtain the samples on various respondents. Specifically, the sample size was derived using Krejcie and Morgan (1970) formula as indicated below:

$$s = \frac{X^2 \, NP(1-P)}{d^2 \, (N\text{-}1) + X^2 \, P(1-P)}$$

s = Sample size

X^2 = the desired confidence level (3.841).

N = population size.

P = population proportion (0.5)

d = degree of accuracy (0.5)

Therefore: Samples size of supervisors were:

$$\frac{3.841^2 \times 23 \times 0.5(1\text{-}0.5)}{0.5^2 (23\text{-}1) + 3.841^2 \times 0.5(1\text{-}0.5)}$$

=   22 supervisors

Samples size of internal auditors were:

$$\frac{3.841^2 \times 20 \times 0.5(1\text{-}0.5)}{0.5^2 (20\text{-}1) + 3.841^2 \times 0.5(1\text{-}0.5)}$$

=   19 internal auditors

Samples size of customer care officers were:

$$\frac{3.841^2 \times 29 \times 0.5(1\text{-}0.5)}{0.5^2 (29\text{-}1) + 3.841^2 \times 0.5(1\text{-}0.5)}$$

=   27 customer care officers

Samples size of personal relationship officers were:

$$\frac{3.841^2 \times 69 \times 0.5(1\text{-}0.5)}{0.5^2 (69\text{-}1) + 3.841^2 \times 0.5(1\text{-}0.5)}$$

=   58 personal relationship officers

Samples size of teller staff were:

$$\frac{3.841^2 \times 53 \times 0.5(1\text{-}0.5)}{0.5^2 (53\text{-}1) + 3.841^2 \times 0.5(1\text{-}0.5)}$$

=   46 teller officers

Therefore, when applied to the population the sampled respondents comprised of 22 supervisors, 19 internal auditors, 27 customer care officers, 58 personal relationship officers, and 46 teller officers hence a total of 172 respondents were provided in Table 3.1.

Table 3.1

Sampled Population

Commercial Banks	Super visors	Internal auditors	Customer care officers	Personal relationship officers	Teller officers	Total
Absa Bank	2	1	2	4	3	12
Consolidated Bank	1	1	2	5	3	12
Coop Bank	1	1	2	5	4	13
DTB Bank	1	1	1	2	2	7
Eco bank	1	1	1	3	3	9
Equity Bank	2	2	3	4	3	14
Family Bank	1	1	2	5	3	12
Housing Finance	1	1	1	3	3	9
I&M Bank	2	2	2	4	4	14
KCB	2	1	3	5	3	14
Kingdom bank	1	1	1	2	3	8
NCBA	1	1	1	3	3	9
National Bank	1	1	1	4	2	9
Post bank	1	1	1	2	2	7
Sidian Bank	2	1	2	3	2	10
Standard Chartered Kenya	2	2	2	4	3	13
Total	**22**	**19**	**27**	**58**	**46**	**172**

Source: Author (2023)

3.6 Data Collection Instruments

The study collected primary and secondary data in form of questionnaires from the respondents and analyze financial reports (balance sheets and income statements) dating from 2019 to 2022 (Canals, 2017). The questionnaires were closed ended and had an Ordinal Likert Scale whereby: 1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree (appendix II). The questionnaire was organized in six section which covered background information of the officers, debt securities, derivative securities, asset-backed securities, equity securities and financial performance. Each section had five questions relatable to each variable of the study.

In regards to secondary data, balance sheets and income statements dating from 2019 to 2022 of the banks were assessed (appendix III). This is whereby gross profit, net profit, return on assets, and return on equity were derived so as to ascertain whether performance had improved or not after trading of financial market securities. Further, secondary data on derivatives (forwards, swaps and options), total shareholders' equity, discounted value of securities, borrowed funds and government securities were collected from secondary data. The four-year period enabled the study assess the performance of the banks via a vast period of time to substantiate that either an increase or decrease of performance had not been caused by economic cycles. Additionally, the study was also interested in ascertaining how banks were performing before, during and after covid-19 period in relation to trading of financial market securities.

3.7 Pre-test of Research Instruments

The study conducted a pre-test study at Bank of Africa and Stanbic bank in Nakuru County so as to ensure that the questionnaires reflect the contents of the study and as well as

comprehensive questions. The two banks were considered since they were regularly dealt with high volumes of financial market instruments such as debt securities, derivative securities, asset-backed securities, and equity securities. Mugenda and Mugenda (2003) advised that for a pre-test study, a 10% of the sample size was enough during the data collection. Therefore, the respondents comprised of 2 supervisors, 2 internal auditors, 3 customer care officers, 6 personal relationship officers, and 5 teller officers in both banks. They answered the pre-test questionnaires whereby their responses directed the study to ascertain whether the instrument was reliable or not.

3.7.1 Reliability

The study measured the reliability of the questionnaires through Cronbach Alpha Coefficient (Cooper & Schindler, 2018). Reliability was relevant since the study was in a position of providing questionnaires that could be re-used in a second study and trusted to generate similar outcome. This was a scientific test that was used before by authors and provided the metrics to assess reliability effectively. Cronback Alpha Coefficient contained a range of 0 to 7 whereby on the one hand, 0.7 – 1 was considered as a metric to determine high reliability of the questionnaires (Cooper & Schindler, 2018). On the other hand, 0-0.69 was considered a metric to determine low reliability of the questionnaires. In a case where the questionnaires had low reliability, the study either changed the entirety of the questions in a section or rephrased the questions to be simpler for the respondents to comprehend (Cooper & Schindler, 2018).

3.7.2 Validity

The study measured three types of validity which were construct, criterion, and face validity (Surusu et al., 2020). This was to see to it that the questionnaires were able to measure what they were intended to measure. In regards to construct validity, the study ensured that all the sections asked relevant questions that were related to the indicators of each variable of the study (Surusu et al., 2020). The study did not provide questions that inquired more of a respondents' personal life but rather on financial market securities and financial performance. Criterion validity was measured when the study compared the results generated with what other authors have ever gotten in related studies (Surusu et al., 2020). Face validity was ascertained when the study distinguished how debt securities, derivative securities, asset-backed securities, equity securities and financial performance addressed the effect of financial market securities on performance of commercial banks (Surusu et al., 2020).

3.8 Data Collection Procedure

The study attained all the data collections authorizations such as introduction letter from KeMU, and NACOSTI permit. Thereafter, the researcher contracted the services of one research assistant who helped during the data collection process. The researcher worked with the assistant in distribution of questionnaires and as well as collection of filled in questionnaires. On the day of collecting data, the researcher accompanied by the assistant visited all the eleven sampled commercial banks in Nyeri municipality.

They introduce themselves to the officer in charge of the branch and also stated the reasons as to why they were visiting the branch. They requested to be allowed to collect data among

the sampled staff and when allowed, data collection process began. Once the respondents were identified, the researcher approached them and requested for their consent to take part in the study (appendix I). When they agreed and signed the consent form; the research assistant issued them with the questionnaire. However, if they disagreed to take part, the researcher thanked them for their time and left them alone to engage in other duties.

Thereafter, the research assistants ensured that, if possible, all the participants who had consented to take part in the study, fill in the questionnaires there and then. Nevertheless, in instances where the officer was busy, the research assistant allocated them 2-day time frame to have answered the questions. Immediately the filled in questionnaires were returned, the researcher stored them in a safe place under lock and key till the next phase of the research which was the analysis process begins.

Further on, as the research assistant was issuing and collecting questionnaires, the researcher inquired from the branch manager for secondary data. The manager provided the required information after accessing it in the system. However, in case the manger requested the researcher to check the information from the bank's website, the researcher searched the name of the bank over the internet. Once identified, the researcher proceeded to the report section and download all the necessary reports as required by the study.

3.9 Data Analysis and Presentation

During the analysis process, the researcher sorted and clean the data in the questionnaires such as eliminating all incomplete questionnaires. Thereafter the researcher created an SPSS version 25 database and later entered the data. The study analyzed descriptive statistics like frequencies, percentages and mean. Other analysis done included linear and

multiple regression. The study conducted linear regression like Pearson Correlation while multiple regression analysis included regression coefficients as guided by the regression model below:

$Y = C + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$

Where:

Y = Financial Performance

β_i = Coefficients to be estimated

C = Constant

XI = Debt Securities

X2 = Derivative Securities

X3 = Asset-backed Securities

X4 = Equity Securities

Additionally, the study also provided various diagnostic tests such as normality, linearity and multicollinearity. In regards to secondary data, the study analyzed it using horizontal method since it covered more than one year. The results were presented using tables and explanations as deemed fit in relation to the research problem.

3.10 Ethical Considerations

The study also ensured that ethics in data collection process was maintained. The various ethical issues adhered to included; ensuring that the various authorization such as from KeMU and NACOSTI were provided through introduction letters and research permit respectively. Further on, the respondents were explained on what the study entailed and their consent approved first before subjecting them into data collection process (appendix

I). Additionally, their responses were confidential and none of them was required to provide personal details such as names, phone number, work code or emails in the questionnaire. The study also ensured that the responses given inform of answered questionnaires responses were stored in a safe place which is tamper proof. The study also recruited research assistants who were of good moral standards and communicated courteously. The researcher also put up the whole study through publishing on public domains such as google to ensure that everyone gets to see the results that emanated from the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

The chapter provides the results of the study which include the response rate, reliability, demographic information, descriptive statistics on each variable, inferential statistics such as Pearson correlation and multiple regression analysis like model summary, ANOVA and regression coefficients.

4.2. Response Rate

The study issued questionnaires to 22 supervisors, 19 internal auditors, 27 customer care officers, 58 personal relationship officers, and 46 teller officers hence a total of 172 respondents whose response rate is in Table 4.1.

Table 4.1

Response Rate

Respondents	Sampled	Percentage
Issued questionnaire	172	
Returned questionnaires	129	75%

Based on Table 4.1, the returned questionnaires were 129 which was indicated a 75% response rate. Authors have debated on which was the suitable response rate in a study to be categorized as having obtained a satisfactory level. Mugenda and Mugenda (2003) pointed that as long as the percentage was above 70% it was categorized as very good. Cooper and Schindler (2018) pointed that as long as its above 60% the analysis can

satisfactorily go on. Therefore, since the current study's results indicated a 75%, they were above the thresholds indicated hence adequate to proceed.

4.3 Reliability Test Results

The study also pre-tested the questionnaires in Bank of Africa and Stanbic bank in Nakuru County. Two (2) supervisors, 2 internal auditors, 3 customer care officers, 6 personal relationship officers, and 5 teller officers in both banks were considered and whose outcome is in Table 4.2.

Table 4.2

Reliability Results

Instrument	Cronbach's Alpha	N of Items
Debt Securities	0.820	18
Derivative Securities	0.837	18
Asset-Backed Securities	0.839	18
Equity Securities	0.826	18
Financial Performance	0.842	18

Based on Table 4.2, the Cronbach Alpha values for debt securities were 0.820, derivatives were 0.837, asset-backed securities were 0.839, equity securities were 0.826 and financial performance was 0.842. Therefore, all the values fell within the range of 0 to 1 and as guided by Cooper and Schindler (2018) it indicated that the questionnaire used in the main study was reliable. That is, the questions were related to the study and also easy to comprehend to the respondents.

4.4 Demographic Information Results

The study collected information on the demographics of the participants as in Table 4.3.

Table 4.3

Demographic Information

Job Position	Frequency	Percent	Cumulative Percent
Supervisors	12	9.3	9.3
Internal Auditors	35	27.1	36.4
Customer care officers	31	24.0	60.4
Personal relationship officers	21	16.3	76.7
Teller officers	30	23.3	100
Total	129	100	
Length of service in the current position	Frequency	Percentage	Cumulative Percent
Above 5 years	43	33.3	33.3
2-5 years	35	27.1	60.4
1-3 years	34	s26.4	86.8
Less than 1 year	17	13.2	100
Total	129	100	

On the one hand as per Table 4.3, 35(27.1%) internal auditors comprised on the majority of the respondents followed by 31(24%) customer care officers and 30(23.3%) tellers. On the other hand, 12(9.3%) comprised on the minority group to have agreed to participate in the study. Additionally, on the one hand, 43(33.3%) of the participants had worked on specific Nyeri branch for a period of above 5 years while 35(27.1%) between 2-5 years. However, on the other hand, 17(13.2%) had worked for less than 1 year. Therefore, it is of

essence to note that the study attracted key banking officers involved in the management of various financial securities for a long period of time, to point out inconsistencies in policy structure, risk management and general administration. This was as a means of identifying the issues surrounding various financial market securities in commercial banks of Nyeri County. Notably, Hai et al. (2022) study also attracted high number of officers who dealt with various innovative products like debt, derivative, and equity securities among others since it attracted a point of concern on their suitability to improve performance.

4.5 Diagnostic Tests

There was satisfaction of various regression analysis assumptions done through diagnostic tests such as normality, linearity and multicollinearity.

4.5.1 Normality Test

This test was conducted to ascertain whether the data from questionnaire had a symmetrical curve which did not incline in any of the sides, through use of Kolmogorov-Smirnov Z test as in Table 4.4

Table 4.4

Normality Test

		Debt Securities	Derivative Securities	Asset backed Securities	Equity Securities	performance
N		129	129	129	129	129
Normal Parameters[a,b]	Mean	13.4419	13.4419	21.8992	21.7674	20.8682
	Std. Deviation	3.65699	3.65699	2.53675	2.35024	2.32977
Most Extreme Differences	Absolute	.103	.103	.251	.229	.143
	Positive	.103	.103	.251	.098	.090
	Negative	-.068	-.068	-.014	-.029	-.043
Kolmogorov-Smirnov Z		.588	1.165	.850	.605	.621
Asymp. Sig. (2-tailed)		.264	.132	.186	.224	.110

Based on Table 4.4, the p-values for debt securities were 0.264, derivative securities were 0.132, asset-backed securities were 0.186, equity securities were 0.224 and financial performance was 0.110. It was notable that these values were above 0.05 and as suggested by Mishra (2019) data was considered to be normal when the p-values were above 0.05. This means that the data set did not contain any abnormalities such as having responses that are either inclined on total disagreement or agreements from the respondents.

4.5.2 Linearity Test

The study also conducted linearity test to ascertain whether there was any working relationship between independent and dependent variables as in Table 4.5.

Table 4.5

Linearity Test

			Sum of Squares	df	Mean Square	F	Sig.
Financial Performance * Debt Securities	Between Groups	(Combined)	110.329	9	12.259	2.496	.012
		Linearity	67.655	1	67.655	13.776	.000
		Deviation from Linearity	42.674	8	5.334	1.086	.378
	Within Groups		584.431	120	4.911		
	Total		694.760	129			
Derivative Securities	Between Groups	(Combined)	97.974	13	7.536	1.452	.147
		Linearity	10.103	1	10.103	1.947	.166
		Deviation from Linearity	87.870	12	7.323	1.411	.171
	Within Groups		596.786	116	5.189		
	Total		694.760	129			
Asset Backed Securities	Between Groups	(Combined)	138.695	8	17.337	3.741	.121
		Linearity	46.776	1	46.776	10.094	.102
		Deviation from Linearity	91.920	7	9.131	1.834	.097
	Within Groups		556.065	121	4.634		
	Total		694.760	129			
Equity Securities	Between Groups	(Combined)	282.240	10	28.224	8.073	.040
		Linearity	50.015	1	50.015	14.307	.138
		Deviation from Linearity	232.225	9	5.803	1.381	.284
	Within Groups		412.520	119	3.496		
	Total		694.760	129			

Based on Table 4.4, the p-values for debt securities were0.378, derivative securities were 0.171, asset-backed securities were 0.097, and equity securities were 0.284. Therefore, it was notable that the values were all above 0.05 indicating that there was a linear

relationship meaning that the data was suitable to be used in conducting a linear regression analysis.

4.5.3 Multicollinearity Test

The study also conducted a multicollinearity test to ascertain whether there was an influence of each financial security addressed in this study towards financial performance. The test was also established to ensure that it was not the other way round such that the debt, derivative, asset-backed and equity securities were influenced by financial performance. The tolerance and Variance Inflation Factor [VIF] was used to ascertain the presence of multicollinearity as in Table 4.6.

Table 4.6

Multi-collinearity Test

Variable	Tolerance	VIF
Debt Securities	.305	3.868
Derivative Securities	.972	1.029
Asset backed Securities	.311	3.211
Equity Securities	.283	3.539

Based on Table 4.4, the tolerance and VIF values for debt securities were 0.305 and 3.868; tolerance and VIF values for derivative securities were 0.972 and 1.029; tolerance and VIF values for asset-backed securities were 0.311 and 3.211; tolerance and VIF values for equity securities were 0.283 and 3.539. Therefore, it was notable that the tolerance values and VIF were above 0.2 and below 5 respectively. These results fit in as prescribed by Daoud (2019) that as long as they were within the 0.2 for tolerance and below 5 for VOF,

then it was the independent variable that had an influence on performance hence the absence of multicollinearity.

4.6 Descriptive Results of Financial Performance

Financial performance was the dependent variable and was measured using gross profit, net profit, ROA and ROE. The secondary data is in Table 4.7.

Table 4.7

Secondary Data Results of Financial Performance

Financial Performance	**2019 Mean**	**2020 Mean**	**2021 Mean**	**2022 Mean**	**Average Mean**
Gross profit	3.5	2.7	3.1	3.3	3.2
Net profit	3.3	2.3	2.7	3.2	2.9
Return on assets	3.2	2.9	3.1	2.9	3.0
Return on equity	3.1	2.9	3.3	3.0	3.1

As per Table 4.7, gross profit had the highest average mean of 3.2 while net profit had the lowest mean. An observation of the years indicated that the gross and net profits for the banks were highest in 2019, followed by 2022 while 2020 recorded the lowest annual profits. This meant that before covid, commercial banks in Nyeri were performing very well but thereafter the records were lowest. The subsequent years of 2021 and 2022 were termed as recovering years with the 2022 showing great signs of recovery. Therefore, it was paramount that complimenting banking products with financial market securities was improving performance through their contribution varied significantly. A comparative

study by Deutsche Bank (2019) added that securities traded in European fianncial markets was one sure way of fixing the banking sector in Europe hence highly recommended.

Further, the study also complimented the secondary data with questionnaires from various respondents. All the questions used in the study had Ordinal Likert Scale whereby: 1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree as the one in Table 4.8.

Table 4.8

Descriptive Statistics of Financial Performance

Statements N=129	1	2	3	4	5	Mean
Debt securities have an influence on financial performance	1 (0.8%)	1 (0.8%)	11 (8.5%)	13 (10.1%)	103 (79.8%)	4.84
Derivative securities have an influence on financial performance	32 (24.8%)	53 (41.1%)	0 (0%)	44 (34.1%)	0 (0%)	2.90
Asset-backed securities have an influence on financial performance	0 (0%)	14 (10.9%)	10 (7.7%)	38 (29.5%)	67 (51.9%)	4.18
Equity securities have an influence on financial performance	1 (0.8%)	1 (0.8%)	0 (0%)	13 (10.1%)	114 (88.3%)	4.84
This bank assesses various metrics of financial performance such as gross profit, net profit, return on equity and return on asset	7 (5.4%)	27 (20.9%)	3 (2.3%)	30 (23.3%)	62 (48.1%)	3.90

Based on Table 4.8, debt securities and equity securities had the highest influence on performance whereby 116(89.9%) acquiesced on a mean of 4.84 and 127(98.4%) on a mean of 4.84 respectively. However, 85(65.9%) failed to acquiesced on a mean of 2.9 that the derivative securities had influenced financial performance. Therefore, the results blended further with the secondary data that the income from debt and equity securities enabled the bank's performance to increase. However, the expenses incurred as a result of ensuring that the operations on financial market securities were seamless were higher than the income generated. Milos and Milos (2022) advised that there were more expenses which could be in terms of derivatives risks whereby the staff had not acquired enough skills to diversify risks associated with swaps, forwards and options.

4.7 Descriptive Results of Debt Securities

Debt securities was measured using corporate bonds, treasury bills, commercial paper and government bonds. The secondary data is in Table 4.9.

Table 4.9

Secondary Data Results of Debt Securities

Debt Securities	2019 Mean	2020 Mean	2021 Mean	2022 Mean	Average Mean
Corporate bonds	2.8	2.2	2.7	2.9	2.7
Treasury bills	4.4	3.1	4.2	4.8	4.1
Commercial paper	3.2	1.8	2.0	2.3	2.3
Government bonds	3.6	2.7	3.8	3.4	3.4

Based on Table 4.9, it was evident that on the one hand, treasury bills and government bonds had mean of 4.1 and 3.4 correspondingly indicating that they were the most preferred securities since they carried lower payment of interest risk as compared to the rest of debt securities. On the other hand, commercial papers and corporate bonds had low mean of 2.3 and 2.7 correspondingly. This was a clear indicatiion that clients did not have preferences on them since the chance of experiencing risk of losses was higher. This was due to the fact that they were originally associated with specific banks which meant that the initiator could fail to honor their agreement as experienced before by various collapsed insittutions like Chase bank and Dubai bank. Nzau et al. (2019) also indicated that in Kenyan perspective, it was rather unfortunate that most clients had low expectations on the suitability of corporate bonds and commercial paper, towards being avenues of increasing their individual wealth.

Further, the study also complimented the secondary data with questionnaires from various respondents as in Table 4.10.

Table 4.10

Descriptive Statistics of Debt Securities

Statements N=129	1	2	3	4	5	Mean
There are corporate bonds issued by this bank to investors	1 (0.8%)	12 (9.3%)	3 (2.3%)	17 (13.2%)	96 (74.4%)	3.97
There are competent staff that guide investors on how to purchase treasury bills hence earning commission from the process	0 (0%)	5 (3.9%)	1 (0.8%)	15 (11.6%)	108 (83.7%)	4.75
There has been adequate training on staff on how to process commercial paper securities so as to improve efficiency due to high number of clients served at a time	38 (29.5%)	65 (50.3%)	1 (0.8%)	10 (7.8%)	15 (11.6%)	2.89
The bank has invested in updated ICT systems which enable the investors to make purchases and earn interest from government bonds	0 (0%)	20 (15.5%)	0 (0%)	67 (51.9%)	42 (32.6%)	4.02
There are clear policies established by the bank on the prices and maturity dates of various debt securities such as corporate bonds	0 (0%)	6 (4.7%)	0 (0%)	67 (51.9%)	56 (43.4%)	4.34

Based on Table 4.10, 123(95.3%) acquiesced on a mean of 4.75 that there were competent staff that guided investors on how to purchase treasury bills hence earning commission from the process. Additionally, 123(95.3%) acquiesced on a mean of 4.34 that there were clear policies established by the bank on the prices and maturity dates of various debt securities such as corporate bonds. Therefore, it was clear that the reason why treasury bills were attractive to clients was because the banks had invested towards employing qualified staff who had wealth of experience on matters relating to buying and executing sales of T-bills. Further, the banks were also keen in redeeming the suitability of corporate bonds to ensure they become attractive by having accurate maturity dates and prices. A study by Obong'o (2020) also noted that it was through the provision of this face value information on debt securities like corporate bonds, that clients had the opportunity to calculate the risk weighted securities structures to make financial decisions.

However, 103(79.8%) failed to acquiesced on a mean of 2.89 that there had been adequate training on staff on how to process commercial paper securities so as to improve efficiency due to high number of clients served at a time. There was a contradiction on the adequacy of training and number of commercial paper clients. Therefore, it was clear that there were some training deficiencies experienced in the banks, such that the staff had not fully mastered the aspect of commercial papers. When this weakness was noted by clients, they failed to engage the staff more on matters of commercial papers thereby affecting their numbers. They could not relate to how exactly commercial papers enabled clients generate their wealth and the risks associated with them. A report by European Investment Bank (2021) pointed that the transactions relating to commercial papers needed to be handled

with care since it was through the operations of commercial papers that led to financial crisis of 2007.

4.8 Pearson Correlation of Debt Securities

Pearson Correlation analysis was used to test the null hypothesis as in Table 4.11.

Table 4.11

Pearson Correlation of Debt Securities

		Debt Securities	Financial Performance
Debt Securities	Pearson Correlation	1	.312[**]
	Sig. (2-tailed)		.000
	N	129	129
Financial Performance	Pearson Correlation	.312[**]	1
	Sig. (2-tailed)	.000	
	N	129	129

**. Correlation is significant at the 0.01 level (2-tailed).

Based on Table 4.11, debt securities had a Pearson correlation coefficient r=0.312** at α < 0.000 and 99% significance level. Therefore, the null hypothesis was rejected since the R-value was less than 1. Therefore, this meant that debt securities were key attributes that impacted performance greatly through combining various products like corporate bonds, treasury bills, commercial paper and government bonds. The proportion of the mixture was highly dependent on their risks and sales capacities.

4.9 Descriptive Results of Derivative Securities

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Derivative securities were measured using forward, swaps, options and futures. The secondary data is in Table 4.12.

Table 4.12

Secondary Data Results of Derivative Securities

Debt Securities	2019 Mean	2020 Mean	2021 Mean	2022 Mean	Average Mean
Forward	2.7	2.2	2.8	3.5	2.8
Swaps	3.6	3.1	3.2	3.7	3.4
Options	3.5	2.3	3.5	3.8	3.3
Futures	2.9	2.0	2.1	3.4	2.6

Based on Table 4.12, it was clear that options and swaps contributing significantly towards improvement of financial performance with a mean of 3.3 and 3.4 correspondingly. This was because derivatives such as options were commonly used in forex exchange where the clients' made purchases or sales based on strike price. Nevertheless, forward and futures had low mean of 2.8 and 2.6 correspondingly since it had to involve financial contracts that a bit confusing to the clients. That is, the clients had a hard time differentiating the two and often though they were the same type of contracts with different names. This shows that public awareness on the two derivatives was low hence contributing towards their low subscription. Further, Ndegwa (2020) pointed out that the futures and forwards were highly avoided in any institution since they were suspectable to inflation rate such that by the time a contract is being executed, its prices are very low in comparison with the American dollar.

Further, the study also complimented the secondary data with questionnaires from various respondents as in Table 4.13.

Table 4.13

Descriptive Statistics of Derivative Securities

Statements N=129	1	2	3	4	5	Mean
The bank has established risk assessment measures to minimize Swaps losses	17 (13.2%)	15 (11.6%)	0 (0%)	55 (42.6%)	42 (32.6%)	3.72
There are known processes established that dictate how to evaluate and monitor the underlying assets of futures	11 (8.5%)	54 (41.9%)	2 (2%)	58 (45.0%)	4 (3.1%)	2.92
The bank has invested in up-to-date systems that guide on how and when to trade options for easier decision making	53 (41.1%)	25 (19.4%)	21 (16.3%)	14 (11%)	16 (12.4%)	2.34
There is training offered to staff on how to manage forwards transaction to minimize work related errors	26 (20.2%)	15 (11.6%)	15 (11.6%)	48 (37.2%)	25 (19.4%)	3.43
Hedging policies have been established to minimize the impact	8 (6%)	51 (39.5%)	3 (2.3%)	63 (48.8%)	4 (3.1%)	3.03

of price volatility among the derivative securities

Based on Table 4.13, 97(75.2%) acquiesced on a mean of 3.72 that the bank had established risk assessment measures to minimize any losses emanating from swaps. Further, 73(56.6%) acquiesced on a mean of 3.43 that there was training offered to staff on how to manage forwards transaction to minimize work related errors. Therefore, the bank management had made recognizable efforts towards ensuring that risk attributes of swap contracts was amicably managed and also offering training on forwards to reduce errors when making transactions. This meant that the management had realized that for derivatives to improve performance frequent risk management and training was needed.

However, 78(60.5%) failed to acquiesced on a mean of 2.34 that the bank has invested in up-to-date systems that guide on how and when to trade options for easier decision making. This meant that since derivatives were still developing in NSE, it became obnoxious for banks to rush towards investing shareholders wealth in a financial innovation that was not yet maturated. This was done to avoid immense losses in cases where derivatives failed to perform.

That notwithstanding, the banks were therefore easily overtaken by other financial institutions like investment firms due to consistent hardware and software enhancement in their operations. To sum it all, banks were not fully utilizing the chance to earn substantial commissions from various derivatives sales and purchases by their clients. Notably, Muthine (2021) also noted that derivatives market was still young in the capital market whereby derivatives like futures were still not yet fully incorporate at the NSE. Therefore, it became a hard task for the large banks to invest resources towards the same venture.

4.10 Pearson Correlation of Derivative Securities

The Pearson Correlation analysis was used to test the null hypothesis as in Table 4.14.

Table 4.14

Pearson Correlation of Derivative Securities

		Derivative Securities	Financial Performance
Derivative Securities	Pearson Correlation	1	.121[**]
	Sig. (2-tailed)		.000
	N	129	129
Financial Performance	Pearson Correlation	.121[**]	1
	Sig. (2-tailed)	.000	
	N	129	129

**. Correlation is significant at the 0.01 level (2-tailed).

According to Table 4.14, derivative securities had a Pearson correlation coefficient r=0.121** at α < 0.000 and 99% significance level. Therefore, the null hypothesis was rejected since the R-value was less than 1. It was hence noted that though derivatives impacted performance positively, it was extremely low in comparison with the other types of securities. Therefore, there was need to balance the rolling out of the forward, swaps, options and futures to maximize on the commissions emanating from the trading process.

4.11 Descriptive Results of Asset-Backed Securities

Asset-backed securities were measured using motor vehicle loans securities, home loan securities, real estate mortgage securities, credit card receivable securities. The secondary data is in Table 4.15.

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Table 4.15

Secondary Data Results of Asset-Backed Securities

Asset-Backed Securities	2019 Mean	2020 Mean	2021 Mean	2022 Mean	Average Mean
Motor vehicle loans securities	3.2	2.9	3.5	3.8	3.4
Home loan securities	3.4	2.2	2.9	3.2	2.9
Real estate mortgage securities	3.4	3.1	3.8	4.2	3.6
Credit card receivable securities	1.9	1.5	2.1	2.2	1.9

Based on Table 4.15, securities based on real estate mortgage and motor vehicle loans had a mean of 3.6 and 3.4 correspondingly. However, the securities based on credit cards had lowest mean of 1.9. This is to indicate that as long as an underlying loan facility had high uptake, its securities were guaranteed to sell hence improved financial performance. However, if an underlying credit facility attracted high probability of default, it resulted to low subscription and sales of its securities.

Therefore, from the results it was discovered that commercial banks in Nyeri county hardly sold-out credit card securities but make recognizable effort towards selling of motor vehicle and real estate mortgages. In a rather notable difference was that home loan securities' mean was also low at 2.9 indicating that in Nyeri county, there were few viable home loans issued. This therefore attracted a subsequent low sale of securities. According to Muiruri et al. (2021), the possible reason for low home loans was mainly attributed to the urbanization and economic activities' factor levels.

Further, the study also complimented the secondary data with questionnaires from various respondents as in Table 4.16.

Table 4.16

Descriptive Statistics of Asset-Backed Securities

Statements N=129	1	2	3	4	5	Mean
The bank has employed qualified and experienced asset management officers to evaluate the credibility of underlying assets	1 (0.8%)	0 (0%)	0 (0%)	11 (8.5%)	117 (90.7%)	4.88
There are several background checks conducted on borrowers	34 (26.4%)	20 (15.5%)	8 (6.2%)	33 (25.5%)	34 (26.4%)	3.62
This banks trades securities from real estate mortgages	21 (16.3%)	12 (9.3%)	19 (14.7%)	48 (37.2%)	29 (22.5%)	3.80
There are clear procedures on how to monitor credit card receivables	51 (39.5%)	51 (39.5%)	6 (4.7%)	17 (13.2%)	4 (3.1%)	2.34
There are frequent in-work trainings to facilitate understanding of intricacies of various asset-backed securities.	0 (0%)	1 (0.8%)	0 (0%)	67 (51.9%)	61 (47.3%)	4.46

Based on Table 4.16, 128(99.2%) acquiesced on a mean of 4.88 that the bank had employed qualified and experienced asset management officers to evaluate the credibility of underlying assets such as home loans frequency of payments. Further, 128(99.2%) acquiesced on a mean of 4.46 that there were frequent in-work trainings to facilitate understanding of intricacies of various asset-backed securities. Therefore, banks were scaling up the operations of selling asset-backed securities hence including qualified personnel and as well as train them. This prompted sound decisions when selecting loans that could be used as underlying assets leading to low failure on the same.

That notwithstanding, 102(79%) failed to acquiesced on a mean of 2.34 that there were clear procedures on how to monitor credit card receivables since it was not bound by time unlike other loans for purposes of offering quality securities from it. This meant that policy structure attribute was under developed in Nyeri banks partly due to low awareness and subscription of credit cards in the county. Findings by Ndungu (2020) also pointed that it was hard to monitor credit card terms since credit cards had the disadvantage of being underutilized due to accruing debt which charges high interest terms.

4.12 Pearson Correlation of Asset-Backed Securities

The Pearson Correlation analysis was used to test the null hypothesis as in Table 4.17.

Table 4.17

Pearson Correlation of Asset-Backed Securities

		Asset-Backed Securities	Financial Performance
Asset-Backed Securities	Pearson Correlation	1	.259
	Sig. (2-tailed)		.000
	N	129	129
Financial Performance	Pearson Correlation	.259	1
	Sig. (2-tailed)	.000	
	N	129	129

**. Correlation is significant at the 0.01 level (2-tailed).

According to Table 4.17, asset-backed securities had a Pearson correlation coefficient r=0.259** at α < 0.000 and 99% significance level. Therefore, the null hypothesis was rejected since the R-value was less than 1. Notably, asset backed securities impacted in a great way performance since various securities such as motor vehicle loans securities, home loan securities, real estate mortgage securities, credit card receivable securities contributed on various levels.

4.13 Descriptive Results of Equity Securities

Equity securities were measured using common stock, preferred shares, money market, and other fixed income investments. The secondary data is in Table 4.18.

Table 4.18

Secondary Data Results of Equity Securities

Equity Securities	2019 Mean	2020 Mean	2021 Mean	2022 Mean	Average Mean
Common stock	4.8	3.5	4.7	4.9	4.5
Preferred shares	4.6	3.8	4.2	4.6	4.3
Money market	3.0	2.7	2.8	3.1	2.9
Other fixed income investments	3.4	3.0	3.6	3.9	3.5

Based on Table 4.18, common stock and preferred shares had the highest mean of 4.5 and 4.3 respectively. This was due to the fact that clients well understood how they worked and how they benefitted them directly. Nevertheless, money market securities attracted all time low mean of 2.9 signifying that there was an issue on the interest amount they charged. Ruzgar and Chua-Chow (2023) also indicated that stock prices were greatly affected by the overall performance of the banking sector in the economy. Therefore, if the banking sector was lowly performing, various equity securities like common stock and money market were hard hit.

Further, the study also complimented the secondary data with questionnaires from various respondents as in Table 4.19.

Table 4.19

Descriptive Statistics of Equity Securities

Statements N=129	1	2	3	4	5	Mean
This bank issues common stock to various interested investors	6 (4.7%)	23 (17.8%)	0 (0%)	31 (24.0%)	69 (53.5%)	4.04
Money market securities offered have attractive interest rates	38 (29.5%)	54 (41.9%)	1 (0.8%)	19 (14.7%)	17 (13.1%)	2.75
The bank has invested a lot on marketing fixed income investments to clients	1 (0.8%)	62 (48.1%)	0 (0%)	27 (20.9%)	39 (30.2%)	3.62
There are customized shares such as preferred shares to attract high worth investors	0 (0%)	20 (15.5%)	0 (0%)	67 (51.9%)	42 (32.6%)	4.02
The bank has put into place clear systems that alert investors on any alarming price volatility	14 (10.9%)	26 (20.1%)	7 (5.4%)	40 (31.0%)	42 (32.6%)	3.34

Based on Table 4.19, 100(77.5%) acquiesced on a mean of 4.04 that the banks issued common stock to various interested investors. Additionally, 109(84.5%) acquiesced on a mean of 4.02 that there were customized shares such as preferred shares that attracted high worth investors who were interested in quality equity securities. The results provided that commons stock and preference shares attracted clients since they were readily available on

the demand of the clients. The prices were different based on whether the clients chose common stock or preferred stocks. However, 92(71.4%) failed to acquiesced on a mean of 2.75 that money market securities offered had attractive interest rates which resulted to high subscription of the same. The low interest rates indicated that the invested amounts remained as they were or with a slight improvement. Therefore, as noted by Gathara et al. (2019) when investors are faced with diverse investment options, they prefer investing in other classes of securities which attract higher interests but with varying risk levels as compared with the money market securities.

4.14 Pearson Correlation of Equity Securities

The Pearson Correlation analysis was used to test the null hypothesis as in Table 4.20.

Table 4.20

Pearson Correlation of Equity Securities

		Equity Securities	Financial Performance
Equity Securities	Pearson Correlation	1	.268**
	Sig. (2-tailed)		.000
	N	129	129
Financial Performance	Pearson Correlation	.268**	1
	Sig. (2-tailed)	.000	
	N	129	129

**. Correlation is significant at the 0.01 level (2-tailed).

Based on Table 4.20, equity securities had a Pearson correlation coefficient r=0.268** at $\alpha < 0.000$ and 99% significance level. Therefore, the null hypothesis was rejected since the R-value was less than 1. It therefore meant that equity securities such as common stock, preferred shares and other fixed income investments impacted performance in a great way.

4.15 Multiple Regression

Multiple regression was conducted to measure how financial market securities impacted performance based on the level of influence, answering the general objective and equating the coefficients of the model with values.

4.15.1 Model Summary of Financial Market Securities

Model summary analysis was conducted as described in Table 4.21.

Table 4.21

Model Summary of Financial Market Securities

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.715[a]	.511	.504	2.23626

a. Predictors: (Constant), Equity Securities, Asset Backed Securities, Derivative Securities, Debt Securities

Based on Table 4.21, financial market securities had an R of .715 and R-square of .511 which was translated that it had a 51.1% impact on performance. This shows that it was important in impacting performance in a great way. However, it had an average influence thereby providing a reason for management to consider restructuring their policy system, provide more funding and conduct vigorous marketing campaigns to raise awareness on the relevance of financial securities towards increasing individual wealth. Notably, Nzau et al. (2019) established that the level of impact that bonds securities had on performance was 75.4%. Muthine (2021) found that derivatives had 75.5%, while Obong'o (2020) found out that corporate bonds had 37.9%. Therefore, since all these studies were assessing specific securities while the current study considered the four types of securities.

4.15.2 ANOVA of Financial Market Securities

ANOVA was used to ascertain the effect of financial market securities on performance of commercial banks as in Table 4.22.

Table 4.22

ANOVA of Financial Market Securities

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	74.653	4	18.663	3.732	.007[b]
1	Residual	620.107	125	5.001		
	Total	694.760	129			

a. Dependent Variable: Financial Performance
b. Predictors: (Constant), Equity Securities, Asset Backed Securities, Derivative Securities, Debt Securities

Based on Table 4.22, the p-value was 0.007 which was less than 0.05. This therefore was interpretated that financial market securities positively impacted performance in a significant manner. Therefore, when correctly applied, debt, derivatives, asset-backed and equity securities had the potential of scaling the performance metrics high and above the set thresholds. Comparatively, Muthi (2021) also established that financial market securities like derivatives positively impacted performance.

4.15.3 Regression Coefficients of Financial Market Securities

The regression model of the study was $Y = C + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$. This is where:

Y = Financial Performance, β_i = Coefficients to be estimated, C= Constant, XI= Debt Securities, X_2 = Derivative Securities, X_3 = Asset-backed Securities, and X_4 = Equity Securities. Regression coefficient analysis were examined and the outcome is in Table 4.23.

Table 4.23

Regression Coefficients of Financial Market Securities

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	10.910	2.798		3.900	.000
Debt Securities	.015	.158	.015	.093	.163
Derivative Securities	.064	.055	.101	1.175	.242
Asset Backed Securities	.033	.140	.036	.236	.814
Equity Securities	.352	.251	.263	1.403	.926

a. Dependent Variable: Financial Performance

Based on Table 4.23, constant was 10.910, debt securities had 0.352, derivative securities had 0.064, asset-backed securities had 0.033, equity securities had 0.015. This meant that an increase in a unit of the securities added 10.910C+0.015X1+0.064X2+0.033X3+0.352X4 to financial performance. Therefore, separately, they were significant but when combined, only debt securities were insignificant. There was therefore the need to ensure that debt securities such as corporate bonds, treasury bills, commercial paper and government bonds were scaled to maximize on the opportunity of making more profits that would propel the banks towards excellence. More effort should be concentrated on ensuring the staff get the right training and increased funding to create more public awareness on commercial papers to improve their uptake. The same sentiments were also recommended by Federal Deposit Insurance Corporation (2019) that when dealing with financial securities, risk management should be incorporated through training and creating awareness on its existence on various products like commercial papers, bonds and derivatives.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The general objective was to determine the effect of financial market securities such as debt securities, derivative securities, asset-backed securities and equity securities on performance of commercial banks in Nyeri County, Kenya. The study was guided by three theories which were capital irrelevance theory, regulatory arbitrage theory and financial intermediation theory. Capital irrelevance theory guided debt and equity securities while regulatory arbitrage theory guided asset-backed securities. Financial intermediation theory guided derivatives securities. The target population comprised of 16 commercial banks in Nyeri County, Kenya. The respondents comprised of 194 respondents in various departments.

They were sampled using simple random method to have a sample size of 22 supervisors, 19 internal auditors, 27 customer care officers, 58 personal relationship officers, and 46 teller officers hence a total of 172 respondents. Additionally, the study collected quantitative data in form of questionnaires from the respondents and analyzed financial reports. Further, pre-test study was done at Bank of Africa and Stanbic bank in Nakuru County. Reliability of the questionnaires were examined through Cronbach Alpha Coefficient while face, construct and criterion were the types of validity assessed. The study analyzed descriptive statistics like frequencies, percentages and mean. Other inferential statistics analysis done were linear and multiple regression.

5.2 Summary of Results

The

5.2.1 Financial Performance

The result of secondary data pointed that the gross profit had the highest average mean of 3.2 while net profit had the lowest mean. An observation of the years indicated that the gross and net profits for the banks were highest in 2019, followed by 2022 while 2020 recorded the lowest annual profits. Further, the questionnaire results were that debt securities and equity securities had the highest influence on performance whereby 116(89.9%) acquiesced on a mean of 4.84 and 127(98.4%) on a mean of 4.84 respectively. However, 85(65.9%) failed to acquiesced on a mean of 2.9 that the derivative securities had influenced financial performance.

5.2.2 Debt Securities

The result of secondary data pointed that the treasury bills and government bonds had mean of 4.1 and 3.4 correspondingly indicating that they were the most preferred securities since they carried lower payment of interest risk as compared to the rest of debt securities. However, commercial papers and corporate bonds had low mean of 2.3 and 2.7 correspondingly. Further, the survey results were that 123(95.3%) acquiesced on a mean of 4.75 that there were competent staff that guided investors on how to purchase treasury bills hence earning commission from the process. Additionally, 123(95.3%) acquiesced on a mean of 4.34 that there were clear policies established by the bank on the prices and maturity dates of various debt securities such as corporate bonds. However, 103(79.8%) failed to acquiesced on a mean of 2.89 that there had been adequate training on staff on

how to process commercial paper securities so as to improve efficiency due to high number of clients served at a time. Notably, debt securities had a Pearson correlation coefficient r=0.312** at α < 0.000 and 99% significance level. Therefore, the null hypothesis was rejected since the R-value was less than 1.

5.2.3 Derivative Securities

The result of secondary data pointed that the options and swaps contributed significantly towards improvement of financial performance with a mean of 3.3 and 3.4 correspondingly. Nevertheless, forward and futures had low mean of 2.8 and 2.6 correspondingly since it had to involve financial contracts that a bit confusing to the clients. Further, the survey results were that 97(75.2%) acquiesced on a mean of 3.72 that the bank had established risk assessment measures to minimize any losses emanating from swaps. Further, 73(56.6%) acquiesced on a mean of 3.43 that there was training offered to staff on how to manage forwards transaction to minimize work related errors. However, 78(60.5%) failed to acquiesced on a mean of 2.34 that the bank has invested in up-to-date systems that guide on how and when to trade options for easier decision making. Notably, derivative securities had a Pearson correlation coefficient r=0.121** at α < 0.000 and 99% significance level. Therefore, the null hypothesis was rejected since the R-value was less than 1.

5.2.4 Asset-backed Securities

The result of secondary data pointed that the securities based on real estate mortgage and motor vehicle loans had a mean of 3.6 and 3.4 correspondingly. Further the securities based on credit cards had lowest mean of 1.9. Further, the survey results were that 128(99.2%)

acquiesced on a mean of 4.88 that the bank had employed qualified and experienced asset management officers to evaluate the credibility of underlying assets such as home loans frequency of payments. Further, 128(99.2%) acquiesced on a mean of 4.46 that there were frequent in-work trainings to facilitate understanding of intricacies of various asset-backed securities. That notwithstanding, 102(79%) failed to acquiesced on a mean of 2.34 that there were clear procedures on how to monitor credit card receivables since it was not bound by time unlike other loans for purposes of offering quality securities from it. Notably, asset-backed securities had a Pearson correlation coefficient r=0.259** at α < 0.000 and 99% significance level. Therefore, the null hypothesis was rejected since the R-value was less than 1.

5.2.5 Equity Securities

The result of secondary data pointed that common stock and preferred shares had the highest mean of 4.5 and 4.3 respectively. This was due to the fact that clients well understood how they worked and how they benefitted them directly. Nevertheless, money market securities attracted all time low mean of 2.9 signifying that there was an issue on the interest amount they charged. Further, the survey results were that 100(77.5%) acquiesced on a mean of 4.04 that the banks issued common stock to various interested investors. Additionally, 109(84.5%) acquiesced on a mean of 4.02 that there were customized shares such as preferred shares that attracted high worth investors who were interested in quality equity securities. However, 92(71.4%) failed to acquiesced on a mean of 2.75 that money market securities offered had attractive interest rates which resulted to high subscription of the same. Notably, equity securities had a Pearson correlation

coefficient r=0.268** at α < 0.000 and 99% significance level. Therefore, the null hypothesis was rejected since the R-value was less than 1.

5.3 Conclusions of the Study

On debt securities, the study concluded that performance was positively impacted but some financial securities such as commercial papers were unattractive to clients due to high risks of poor performance in wealth generation. This situation was fueled further by the low training on its applicability towards boosting the income levels of both the bank and client's portfolio. When this weakness was noted by clients, they failed to engage the staff more on matters of commercial papers thereby affecting their numbers. Additionally, the staff could not relate to the profit structure of the commercial papers and the risks associated with them.

On derivative securities, the study concluded that performance was positively impacted and since derivatives were still developing in NSE, it became repulsive for banks to rush towards putting investors resources in a platform that was not yet fully mature. This was strategically done to avoid colossal misfortunes in situations where derivatives failed to perform. That regardless, the banks were effortlessly surpassed by other firms like investment affiliated companies because of unreliable ICT equipment and programming upgrade in their derivatives trading operations. Therefore, they foregone a n opportunity to earn substantial commissions from the sales of various derivatives sales from clients.

On asset backed securities, the study concluded that there was low public awareness on what exactly asset-backed securities was all about and how clients earn consistent income from investing in it. The poor policy structure on monitoring the underlying assets like

credit cards was partly to be blamed. Therefore, when the few clients made effort to subscribe to these types of securities, they were faced with the risk of getting inconsistent payments due to a mixture of both performing and unperforming underlying loans. An underlying loan such as credit card had the disadvantage of being underutilized or extremely defaulted due to accruing debt which charges high interest terms.

On equity securities, the study concluded that they attracted very low interest rates which indicated that the invested amounts attracted no substantive income even after a long time. Securities such as money market were the most unpopular since their returns were slightly above fixed deposit baking products. Others such as common stock was extremely volatile but with low profit margin to the investors which affected the initial principal invested amounts.

5.4 Recommendations of the Study

On debt securities, the branch managers should develop policy structure that requires mandatory frequent training on staff to understand how not only main stream banking products operate but also securities such as commercial papers. Further, the board of management should assess the risk-return aspect of selected debt securities like the types of commercial papers to ascertain the ones which are riskier than the rest. Once identified, they should be categorized into classes whereby full information on their rate of risk and return in fully availed to investors before a purchase is made hence providing a clear framework for the clients to make informed decisions.

On derivative securities, there should be a wider consultation between the bank's management and other key institutions such as NSE on how the bank clients could be

linked with international capital markets that offer diverse financial derivatives on a larger scale. There is need to involve NSE so as to be guided on the most stable capital markets regionally and internationally to minimize eventual losses on client's portfolios. This will provide justification for incorporation of updated hardware and software towards managing the process of purchase, sales and complains emanating from derivatives products.

On asset backed securities, the bank marketing department managers should develop programs that are vibrant towards letting the public know of their financial securities products. This could be done on conferences, seminars, corporate meetings and one on one. The management should also release enough funding to create attractive financial securities adverts in both main stream and social media platforms. Further, the bank's management should also strengthen the underlying asset selection process, whereby the classes of different loans is considerably done in a consultative manner to reduce losses.

On equity securities, the bank's management should develop and strengthen various securities' alternatives that client could use in cases where securities attract low interests. In a case like common stock, the management could advise the operations to direct clients in purchasing preferential stock to earn higher income but at the same time advising them on the limitations this plan has. Further, since money market is not internally controlled, the bank staff should ensure that they negotiate a more beneficial product to the client such as the bank paying more interest based on the amounts deposited in fixed deposit accounts.

5.5 Implications of the Findings

Financial market securities have become a contended banking operations area that commercial banks have aggressively ventured into. It has become rather paramount that

due to tough economic times and stiff competition from other financial institutions, investing resources in capital market is the next available option to remain profitable. Nowadays almost every financial institution offers more or less some banking products with interest rates that are all similar to each other. Therefore, capital markets which have previously proved to be more effective on generating sustainable income have enabled the banks establish a niche in the banking sector. The survival of the banks requires constant flow of income which can hardly be sustained by the lending and accepting deposits functions.

The banks are projecting sustainability in the capital market who business opportunities are seamless and hardly controlled by anyone. A good example that banks invest their resources are in purchase, sales and guiding of clients on financial market securities. Every client wishes to have a steady income that earns them consistent profits over time. There are different investments that could be considered but as the world is changing their risk appetite to securities, so as the banks. Therefore, the banks are cautiously but surely assessing the risk concerns in every category of securities to guide their clients in a profitable venture. Various securities like debt, derivatives, asset-backed and equity constitute broadly on how a bank can generate income for sustainable banking business.

A bank cannot guarantee shareholders wealth without having a financial plan that promises steady income. This is because there are ever changing government policies that have cost implication to banking gross profits. Additionally, the going concern attribute of banking business needs assets to be improved and as well as the shareholder's wealth. To be in a position of delivering these demands, banks ought to consider debt securities like corporate bonds, treasury bills, commercial paper and government bonds when in need to business

funding. Additionally, they also require to advance their financial systems to incorporate derivative securities like options, forwards, futures and swaps on a large scale to benefit from commissions. In addition, banks need to release the loans to risk averse clients who can purchase asset backed securities based on motor vehicle loans, home loans, real estate mortgages and credit card receivables for profit generation. It is prudent to acknowledge the fact that the institution's funds cannot be held to a specific client till the day they will complete repaying their loans.

The bank needs to devise ways through which they could use to regain their money and at a profit due to ever increasing inflation rate. To do that, asset-backed securities are sold to clients and when they pay the subscription fee, it covers partly on the institution's money that was previously borrowed. It is also notable that it is the desire on every bank to grow its capacity to sustain more businesses and serve more clients. Therefore, banks could consider equity securities like common stocks, preferred shares, money market and fixed income investments. All these channels have their advantages and disadvantages which require qualified staff to manage risk appropriately.

5.6 Suggestions for Future Studies

The study was done in Nyeri County which provides an opportunity to examine whether the other banks in counties or financial institutions would have same findings. Notably, the financial market securities records considered was from 2019-2022 hence future studies could expand this timeline to cover 5-20 years records on debt, derivatives, asset-backed and equity securities performance. It would provide a longitudinal timeframe analysis for a more effective outcome.

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APPENDICIES

Appendix I: Introduction Letter

Dear Participant,

I invite you to participate in a Research study entitled the effect of financial market securities on performance of commercial banks in Nyeri County, Kenya. I am a student currently enrolled in the School of Business and Economics for the Degree of Masters in Business Administration (Finance) of Kenya Methodist University (KeMU) and I am in the process of writing my research thesis. Your participation in this survey is completely voluntary.

Your responses will remain confidential and anonymous. Data from this survey will be kept under secure systems and reported as a collective effort. If you agree to participate in this survey, please answer the questions on the questionnaire/ interview as best you can. It should take approximately 20 minutes to complete.

Thank you for your assistance in this important endeavor.

Yours faithfully,

Lee Ng'ang'a Gathua
BUS-3-0066-1/2022

Appendix II: Questionnaires

You are requested to answer the following questions as truthful as you can. By filing in

this questionnaire, you are affirming that you have agreed to participate in this study.

SECTION A: DEMOGRAPHIC INFORMATION

Designation

a) Supervisors

b) Internal auditors

c) Customer care officers

d) Personal relationship officers

e) Teller officers

Length of service in the current position

a) Above 5 years

b) 2-5 years

c) 1-3 years

d) Less than 1 year

SECTION B: DEBT SECURITIES AND FINANCIAL PERFORMANCE

This part has questions regarding debt securities and financial performance. Kindly
respond with the response that matches your opinion. Please tick as appropriate in the
boxes. 1-strongly disagree, 2-disagree, 3-neutral, 4, agree, 5- strongly agree.

No	Statement	1	2	3	4	5
1.	There are corporate bonds issued by this bank to investors					

		1	2	3	4	5
2.	There are competent staff that guide investors on how to purchase treasury bills hence earning commission from the process					
3.	There has been adequate training on staff on how to process commercial paper securities so as to improve efficiency due to high number of clients served at a time					
4.	The bank has invested in updated ICT systems which enable the investors to make purchases and earn interest from government bonds					
5.	There are clear policies established by the bank on the prices and maturity dates of various debt securities such as corporate bonds					

SECTION C: DERIVATIVE SECURITIES AND FINANCIAL PERFORMANCE

This part has questions regarding derivative securities and financial performance. Kindly respond with the response that matches your opinion. Please tick as appropriate in the boxes. 1-strongly disagree, 2-disagree, 3-neutral, 4, agree, 5- strongly agree.

No	Statement	1	2	3	4	5
1.	The bank has established risk assessment measures to minimize any losses emanating from Swaps					
2.	There are known processes established that dictate how to evaluate and monitor the underlying assets of futures					
3.	The bank has invested in up-to-date systems that guide on how and when to trade options for easier decision making					
4.	There is training offered to staff on how to manage forwards transaction to minimize work related errors					
5.	Hedging policies have been established to minimize the impact of price volatility among the derivative securities					

SECTION D: ASSET-BACKED SECURITIES AND FINANCIAL PERFORMANCE

This part has questions regarding asset-backed securities and financial performance. Kindly respond with the response that matches your opinion. Please tick as appropriate in the boxes. 1-strongly disagree, 2-disagree, 3-neutral, 4, agree, 5- strongly agree.

No	Statement	1	2	3	4	5
1.	The bank has employed qualified and experienced asset management officers to evaluate the credibility of underlying assets such as home loans frequency of payments					
2.	There are several background checks conducted on borrowers to ensure that the bank delivers high end asset-backed securities from motor vehicle loans					
3.	This banks trades securities from real estate mortgages					
4.	There are clear procedures on how to monitor credit card receivables since it is not bound by time unlike other loans for purposes of offering quality securities from it.					
5.	There are frequent in-work trainings to facilitate understanding of intricacies of various asset-backed securities.					

SECTION E: EQUITY SECURITIES AND FINANCIAL PERFORMANCE

This part has questions regarding equity securities and financial performance. Kindly respond with the response that matches your opinion. Please tick as appropriate in the boxes. 1-strongly disagree, 2-disagree, 3-neutral, 4, agree, 5- strongly agree.

No	Statement	1	2	3	4	5
1.	This bank issues common stock to various interested investors					
2.	Money market securities offered have attractive interest rates which has resulted to high subscription of the same					
3.	The bank has invested a lot on marketing fixed income investments to clients hence increased public awareness					
4.	There are customized shares such as preferred shares to attract high worth investors who are interested in quality equity securities					

| 5. | The bank has put into place clear systems that alert investors on any alarming price volatility for quick decision making | | | | | |

SECTION F: FINANCIAL PERFORMANCE

This part has questions regarding financial performance. Kindly respond with the response that matches your opinion. Please tick as appropriate in the boxes. 1-strongly disagree, 2-disagree, 3-neutral, 4, agree, 5- strongly agree.

No	Statement	1	2	3	4	5
1.	Debt securities have an influence on financial performance					
2.	Derivative securities have an influence on financial performance					
3.	Asset-backed securities have an influence on financial performance					
4.	Equity securities have an influence on financial performance					
5.	This bank assesses various metrics of financial performance such as gross profit, net profit, return on equity and return on asset					

Appendix III: Secondary Data Collection Sheet

Commercial Bank's Name………………………………………………………….

Financial Metrics	2019	2020	2021	2022
Gross profit				
Net profit				
Return on assets				
Return on equity				
Derivative Instruments				
Total shareholders' equity				
Discounted value of securities				
Borrowed funds				

Appendix IV: Introduction Letter from KeMU

KENYA METHODIST UNIVERSITY

P. O. Box 267 Meru - 60200, Kenya   Fax: 254-64-30162
Tel: 254-064-30301/31229/30367/31171   Email: deanrd@kemu.ac.ke

DIRECTORATE OF POSTGRADUATE STUDIES

July 17, 2023

Commission Secretary
National Commission for Science, Technology and Innovations
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: LEE NG'ANG'A GATHUA (REG. NO. BUS-3-0066-1/2022)

This is to confirm that the above named is a bona fide student of Kenya Methodist University, in the Department of Business Administration, undertaking a Master's Degree in Business Administration. He is conducting research on: **"Effect of Financial Market Securities on Performance of Commercial Banks in Nyeri County, Kenya"**.

We confirm that his research proposal has been defended and approved by the University.

In this regard, we are requesting your office to issue a research license to enable him collect data.

Any assistance accorded to him will be highly appreciated.

Yours sincerely,

Dr. John M. Muchiri (PhD)
Dean, Postgraduate Studies
Cc: Dean SBUE
     CoD, Business Administration
     Postgraduate Coordinator
     Supervisors

Appendix V: NACOSTI Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **848285**

Date of Issue: **26/July/2023**

RESEARCH LICENSE

This is to Certify that Mr.. LEE NG'ANG'A GATHUA of Kenya Methodist University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nyeri on the topic: EFFECT OF FINANCIAL MARKET SECURITIES ON PERFORMANCE OF COMMERCIAL BANKS IN NYERI COUNTY, KENYA for the period ending : 26/July/2024.

License No: **NACOSTI/P/23/28022**

848285

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR
SCIENCE,TECHNOLOGY &
INNOVATION

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