Assessment of Debt Securities on Performance of Commercial Banks in Nyeri County, Kenya

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Abstract

The study investigated the effect of debt securities on performance of commercial banks in Nyeri County, Kenya. The study used quantitative descriptive research design and target population comprised 16 commercial banks in Nyeri County, Kenya. The respondents comprised 194 respondents in various departments. The study analyzed descriptive statistics like frequencies, percentages and mean. Inferential statistics including correlation and regression analysis were also used. The result of secondary data on financial performance pointed 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. Debt securities had a Pearson correlation coefficient $r=0.312**$ at $\alpha < 0.000$ and a 99% significance level. Therefore, the null hypothesis was rejected since the R-value was less than 1. The study concluded that performance was positively impacted but some products 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. The study recommends that 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.

Keywords: *Debt Securities, Performance, Commercial Banks, Nyeri County, Kenya*

1.0 Introduction

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 debt securities which 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 (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-Chow, 2023).

The various types of debt securities that a bank issue include corporate bonds, treasury bills, commercial paper, and government bonds, depending on the short-term or long-term purpose

of the funds that the bank would want to acquire. Regrettably, as the banks are incorporating debt securities through trading, their financial performance has been engulfed by various issues.

Globally, American banks have encountered low training of staff and ever-increasing high operational costs required to manage debt securities (Federal Deposit Insurance Corporation [FDIC], 2019). Banks in China which is an Asian nation, have experienced low awareness of financial market products and unclear policies that support the implementation of debt securities (Hai et al., 2022). In India, there has been limited ICT infrastructure causing massive staff resistance.

Regionally, banks in South Africa are struggling with cyber insecurity which has resulted in loss of financial data translated to financial losses. In Nigeria, banks lack qualified staff to run the process of money market securities (Akintoye et al., 2022). In East African countries like Tanzania, banks have an excess bureaucracy which discourages staff to come up with suggestions for improvement of debt securities.

Locally, there have been inconsistencies in internal communication and low market orientation on types of debt securities (Kariu, 2017). Additionally, banks have faced low funding needed to finance the high cost of innovation required when rolling out new debt security (Kariu, 2017).

Therefore, as the banks are undergoing these issues, the use of debt securities has complimented their operations to point that there are fewer lending risks and an improvement in a diversity of financial products offered to clients. The banks have also advanced their way of borrowing in such a way that they are maximizing debt to fund their operations.

1.1 Problem Statement

Commercial banks are supposed to continuously engage in ethical and profitable business operations that are regulated by the 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 is generated from transactional fees which improve their financial performance.

Nevertheless, Kenyan commercial banks have previously experienced declined profitability from their operations in the financial year 2019/2020 (CBK, 2019). In 2020, profits before taxation declined to 134.1 billion which was translated to 17.2%. This was attributed to 11.9% increase in 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 securities to investors but that translated to very low income hence negatively affecting the overall profitability of the banks (CBK, 2019).

1.2 Purpose of the Study

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

1.3 Hypothesis of the Study

H_01: Debt securities did not have a significant effect on the performance of commercial banks in Nyeri County, Kenya.

2.0 Literature Review

2.1 Theoretical Review

Capital irrelevance theory was coined by Modigliani and Miller (1963) and indicated that a firm's worth was highly dependent on its income and how risky the assets were but not the financing structure used to fund the assets. This means that the ways used by a firm to fund its operations and assets were independent and could not be used to determine its worth. Therefore, firms sought to ensure that they employed innovative techniques to finance their operations so long as their risk levels were within the acceptable means (Nzau et al., 2019).

Therefore, banks expanded their financing structures through the issuance of various corporate bonds, treasury bills, and commercial paper, and connected investors to government bonds. This ensured that their performance remained viable from both short-term and long-term perspectives (Gathara et al., 2019). Therefore, the decisions made in regard to whether or not the banks issued debt securities majorly relied on the pressing financial 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.

2.2 Empirical Review

Jo et al. (2023) explored how information was transmitted from Convertible Bonds Securities [CBS] to other types of investment securities' vehicles like stocks and other bonds. The study was focused on ascertaining how data from CBS could result in either an improvement or decrement in other securities. Through the 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 in other securities especially when prices seemed profitable on CBS. This meant that debt securities such as convertible bonds had a way of influencing the profitability of other securities hence the general increment of 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 how the performance of Nigeria's capital market was influenced by the market of bond securities. Through evaluation of twenty years twenty years performance span of the 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 on the bonds market's allocations and finances as possible sources of funding by the government hence choking 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 the trading of corporate bonds. The attention was accorded to thirty-nine banks in Nairobi County whereby various managers in operations, and marketing were consulted. A pre-test was conducted in 5 banks of Meru County. According to Obong'o (2020), all the four types of corporate bonds 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 of the relevance of the bonds in 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 the loss of investments. Notably, Obong'o (2020) concentrated on only managers as the main respondents and did not include officers who could offer more financial opinions on 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).

3.0 Methodology

The study considered using a quantitative descriptive research design in its plan for data collection. Notably, the target population comprised 16 commercial banks in Nyeri County, Kenya. The respondents comprised 194 respondents in various departments. They were sampled using a 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, a pre-test study was done at Bank of Africa and Stanbic bank in Nakuru County. Reliability of the questionnaires was 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 analyses done were linear and multiple regression.

4.0 Results and Discussion

4.1 Response Rate

The study issued questionnaires to 172 respondents and their response rate is shown in Table 1.

Table 1: Response Rate

Respondents	Sampled	Percentage
Issued questionnaire	172	
Returned questionnaires	129	75%

According to Table 1, the returned questionnaires were 129 which 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. Cooper and Schindler (2018), pointed out that as long as it's above 60% the analysis can satisfactorily go on. Therefore, since the current study's results indicated 75%, they were above the thresholds indicated and hence adequate to proceed.

4.2 Reliability Test Results

The study also pre-tested the questionnaires in Bank of Africa and Stanbic Bank in Nakuru County the results are in Table 2.

Table 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

According to Table 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 7 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 for the respondents.

4.3 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 3.

Table 3: Descriptive Statistics 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

According to Table 3, 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 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 financial markets were one sure way of fixing the banking sector in Europe and 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.

Table 4: Descriptive Statistics of Financial Performance

Statements N=129	1	2	3	4	5	Mean
Debt securities influence financial performance	1 (0.8%)	1 (0.8%)	11 (8.5%)	13 (10.1%)	103 (79.8%)	4.84
Derivative securities influence financial performance	32 (24.8%)	53 (41.1%)	0 (0%)	44 (34.1%)	0 (0%)	2.90

	1	2	3	4	5	Mean
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, 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 acquiesce 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.

4.4 Descriptive Results of Debt Securities

Debt securities was measured using corporate bonds, treasury bills, commercial paper, and government bonds. The questionnaires from various respondents are indicated in Table 5.

Table 5: 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 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 5, 123(95.3%) acquiesced on a mean of 4.75 that there was 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 that the banks had invested in employing qualified staff who had a wealth of experience in matters relating to buying and executing sales of T-bills. Further, the banks were also keen on 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 acquiesce on a mean of 2.89 that there had been adequate training on staff on how to process commercial paper securities to improve efficiency due to a high number of clients served at the time. There was a contradiction in the adequacy of training and the 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 to generate their wealth and the risks associated with them. A report by European Investment Bank (2021) pointed out 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 the financial crisis of 2007.

4.5 Pearson Correlation of Debt Securities

Pearson Correlation analysis was used to test the null hypothesis as in Table 6.

Table 6: 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 6, debt securities had a Pearson correlation coefficient r=0.312** at $\alpha < 0.000$ 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 by 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.

4.6 Regression Coefficients

The regression model of the study was $Y = C + \beta_1 X_1$ where: Y = Financial Performance, β_i = Coefficients to be estimated, C= Constant, XI= Debt Securities. The regression coefficient is described in Table 7.

Table 7: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.910	2.798		3.900	.000
	Debt Securities	.352	.251	.263	1.403	.163

a. Dependent Variable: Financial Performance

According to Table 7, constant was 10.910, debt securities had 0.352. This meant that an increase in a unit of the debt securities added 10.910C+0.352X1 to financial performance. Therefore, there was a need to ensure that debt securities such as corporate bonds, treasury bills, commercial paper, and government bonds were scaled to maximize the opportunity of making more profits that would propel the banks towards excellence. More effort should be concentrated on ensuring the staff gets the right training and increased funding to create more public awareness of 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 of its existence on various products like commercial papers.

5.0 Summary

The result of secondary data on financial performance pointed out 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 acquiesce on a mean of 2.9 that the derivative securities had influenced financial performance.

Further, the survey results on debt securities were that 123(95.3%) acquiesced on a mean of 4.75 that there was 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 acquiesce on a mean of 2.89 that there had been adequate training on staff on how to process commercial paper securities to improve efficiency due to a high number of clients served at the time. Notably, debt securities had a Pearson correlation coefficient r=0.312** at $\alpha < 0.000$ and a 99% significance level. Therefore, the null hypothesis was rejected since the R-value was less than 1.

6.0 Conclusion

The study concluded that performance was positively impacted but some products such as commercial papers were unattractive to clients due to the 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 the 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.

7.0 Recommendations

The branch managers should develop a policy structure that requires mandatory frequent training on staff to understand how not only mainstream 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 is fully availed to investors before a purchase is made hence providing a clear framework for the clients to make informed decisions

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