

**RELATIONSHIP BETWEEN PROFITABILITY AND FINANCIAL
DEEPENING AMONG COMMERCIAL BANKS IN KENYA**

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DECLARATION


This research project is my original work and has not been presented for a degree in any other University.

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The research project has been submitted for presentation with my approval as the University Supervisor.

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DEDICATION

I dedicate this project to my friends and family members for the support they accorded me.

ACKNOWLEDGEMENT

I thank my supervisor, Prof Iraya for the support and encouragement and timely response that enabled me to clear this project.

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ABBREVIATIONS AND ACRONYMS

CBDs	Commercial Bank Deposits
CBK	Central Bank of Kenya
CSR	Corporate Social Responsibility
GDP	Gross Domestic Product
KCB	Kenya Commercial Bank
M&As	Mergers and Acquisitions
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment

ABSTRACT

The objective of this study was to establish the relationship between profitability and financial deepening among commercial banks in Kenya. The study adopted a descriptive survey design covering quantitative methods. The study targeted 39 commercial banks operating in Kenya and census was used. Secondary data was gathered over a period of 5-years (2016-2020) and analyzed through descriptive and inferential statistics. The findings were that ROA ($\beta=.112$, $t>1.96$ & $p<0.05$), ROE ($\beta =.101$, $t>1.96$ & $p<0.05$), bank size ($\beta =.119$, $t>1.96$ & $p<0.05$) as well as capital adequacy ($\beta =.105$, $t>1.96$ & $p<0.05$) were all significant predictors of financial deepening among commercial banks in Kenya. The study concludes that profitability is a significant predictor of financial deepening. The study recommends that finance managers of commercial banks in Kenya should come up with sound strategies aimed at improving profits so as to contribute towards financial deepening. The policy makers of the commercial banks in Kenya should develop sound policies and strategies aimed at enhancing the profits generated and thus improving on financial depth. The policy makers at the CBK should develop relevant and sound regulations that encourage and promote financial deepening among commercial banks. The policy makers at KBA should also develop relevant policies for their members that encourage financial deepening.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Financial deepening has attracted scholarly attention as lending institutions seek to develop relevant strategies of achieving this. Financial deepening allows financial institutions to provide wide financial assets to customers within an economy. Deep financial markets ensure that savers have several options of investing in a range of quality investments. This is equally beneficial towards growing loan portfolio of the financial institution which is the major source of revenue for financial institutions. Profitable financial institutions are able to invest in a range of financial product that may increase financial deepening (Xu, Hu & Das, 2019). Furthermore, profitable financial institutions are likely to have large potential of advancing loan facilities to customers and this may contribute to an increase in financial depth. Thus, profitability of a financial institution is instrumental in promoting financial deepening (Adekola, 2016).

The financial intermediation theory and the theory of financial liberalization provided anchorage to the present study. The financial intermediation theory views financial institutions as intermediaries that mobilize savings to grow deposits which are advanced to customers in form of credit facilities. This will have a positive contribution towards financial deepening within an economy. Advanced by Kinnon (1973) and Shaw (1973), the theory of financial liberalization argues the financial sector should be liberalized in order to facilitate growth of the economy. The theory argues through financial sector liberalization, financial deepening is enhanced which may increase the flow of money within the economy.

In Kenya, commercial banks are regulated by the Central Bank of Kenya (CBK). Depending on their relative market share and other proxies, these commercial banks have been classified into three tiers, tier I, tier II and tier III. Tier I banks comprise of most profitable institutions like Kenya Commercial Bank (KCB), Equity Bank and Cooperative Bank. This is contrary to tier II and Tier III banks that control less market share with low profit potential. Dwelling on these differences in profitability, this study seeks to empirically assess whether profitable banks have more financial depths as compared to the less profitable ones.

1.1.1 Profitability

Profitability is defined as the ability of the firm to maximize the wealth of shareholders and it is one of the objectives of existence of the firm (Nasution, Siregar & Panggabean, 2017). Profit is net income that is left after the firm has paid off all the operating expenses including interest and taxation. Profitable firms are those that generate more revenues as compared to the less profitable ones. The key measures of profitability include returns generated by the firm on either its assets (ROA) or equities (ROE) as well as investments in place (ROI). Nasution, Siregar and Panggabean (2017) consider profitability as the ability of an institution to generate revenues that exceed costs in view of the capital base of the institution. Reschiwati, Syahdina and Handayani (2020) shared that less profitable firms are faced with higher funding costs and may be susceptible to more risks.

Within the context of financial institutions like banks, profitability is an important concept. As shared by Harb (2019), a more profitable financial institution is well placed to overcome any economic shocks that may arise. Migwi (2015) argues that profitable financial institution is in good position to ensure they attract more investors hence possibility of having a strong capital base. It

is argued that more profitable banks are able to advance more loans and other credit facilities to customers. Susila, Heryanda and Putra (2020) argued that one of the measures of determining failure of the financial institution is profitability. According to Osazuwa and Che-Ahmad (2016), profitability is a key measure of performance of the financial institution. More profitable banks are in a better position to withstand negative shocks thus contributing towards stability of the financial sector. Ompusunggu (2016) indicates that profitability in the context of the bank can be represented by ROA, ROE as well as net interest margin (NIM). This study will operationalize profitability into ROA and ROE.

1.1.2 Financial Deepening

Financial deepening is defined as a rise in size of the financial system and its pervasive role within the economy. The definition of financial deepening as advanced by Olawumi, Lateef and Oladeji (2017) is that it is the increase in provision of financial services that are geared towards all the sectors of the economy. Shaw (1973) argues that financial deepening arises because of expansion in the expenditure of the government. Berkaert (2005) share that financial deepening arises when there is financial liberalization in the economy. Nasution, Siregar and Panggabean (2017) contend that financial liberalization arises when domestic financial markets have been deregulated. The definition of financial deepening advanced by Shaw (1973) is that it refers to a situation where financial assets have been accumulated at a faster rate compared to how non-financial wealth and outputs have been accumulated. Financial deepening is defined by Ng'ang'a (2016) as the rise in supply of financial assets in the economy. Nasution, Siregar and Panggabean (2017) said that financial deepening connotes the extent which savings are mobilized by financial institutions so as to support investment.

There are different indicators used to measure financial deepening, for instance supply of money as a ratio of gross domestic product (GDP). Financial aggregates like M1, M2 and M3 against GDP can be used to represent financial deepening (Kumar & Bird, 2020). The other measure of financial deepening is the ratio of domestic credit against GDP, ratio of liquid liabilities against nominal GDP, ratio of credit advanced to private sector against nominal GDP as well as commercial central-bank asset ratio and commercial bank deposits (CBDs). In this study, financial deepening will be operationalized as CBDs which is measured by deposits of commercial banks against nominal GDP. This ratio is an important indicator of liquidity of the financial institution.

1.1.3 Profitability and Financial Deepening

Theoretically, a profitable bank is deemed to generate more revenues that can facilitate financial deepening. Compared to less profitable banks, highly profitable financial institutions have the potential to advance more credit facilities to customers thus a large customer base (Kumar & Bird, 2020). Thus, positive relationship is empirically predicted between profitability and financial deepening in a financial institution. According to Shaw (1973), profitability enables financial institutions to effectively realize their intermediation role within the economy.

Empirically, Sabrin, Sarita, Takdir and Sujono (2016) shared that profitability has a positive effect on value of financial institution which may contribute towards financial deepening. Chen, Sun, Wei and Xie (2018) shared that there is mixed evidence for a direct relationship between profitability and financial deepening. Moussav and Hdidar (2019) were of the view that profitability affects financial deepening through its positive contribution towards the growth of the economy. Otieno (2013) said that financial deepening is a great enabler of profitability of the financial institution.

Macharia and Mungai (2021) said that financial institutions need to expand their credit limits and bases so as to advance more credit facilities to customers.

1.1.4 Commercial Banks in Kenya

In Kenya, the relevant governors of the banking industry include the Companies Act, the CBK Act and the Banking Act. These Acts are applied alongside the prudential guidelines that are issued by the CBK. Among the roles of the CBK include formulation and implementation of fiscal and monetary policies. Intermediation is one of the basic functions of commercial banks in an economy. In driving financial intermediation, there are 39 functional commercial banks in Kenya (CBK, 2020).

However, commercial banks in Kenya have encountered different challenges that have had a far reaching consequence on their profitability. For instance, profit before tax for all commercial banks stood at Kshs. 159 and Kshs. 112 billion shillings for the year 2019 and 2020 respectively. Some institutions like Chase Bank and Charterhouse Bank Ltd have been placed under liquidation while Imperial Bank Ltd is in Receivership. Ongore and Kusa (2013) said that realization of financial deepening of commercial banks in Kenya depends on profitability prospects and potential of the respective institutions. It is against this backdrop that the current study seeks to explore the link between profitability and financial deepening.

1.2 Research Problem

Financial deepening allows financial institutions to advance credit to all sectors of the economy. Through financial deepening, lending institutions are able to provide financial services and products even to the unbanked masses in an economy. Theoretically, a positive relationship is

predicted between profitability and financial deepening. Empirically, profitable financial institutions are expected to have a capability of lending out credit to huge customer base which to some extent will promote financial deepening.

In Kenya, commercial banks do not have strong immunity against the increasing forces of competition from other players within the sector. Majority of the commercial banks in Kenya are currently facing high operational costs, inefficiencies in management and liquidity constraints occasioned by constant mergers and acquisitions (M&As) and closure of other institutions like Chase and Dubai Islamic Bank as well as Imperial bank. These challenges have far reaching implication on ability of the commercial banks to realize their financial intermediation role and by extent financial deepening. It is only when these institutions are profitable enough that they will be in a position to effectively realize their financial intermediation and thus financial deepening.

The existing studies include Harb (2019) who used a case of industrial firms in Jordan to provide the link between profitability and productive efficiency where a statistically significant link was noted. Sabrin, Sarita, Takdir and Sujono (2016) looked at profitability and the value of the firm focusing on manufacturing entities in Indonesia that are listed. The study did note that profitability significantly affects the value of the firm. Moussa and Hdidar (2019) looked at profitability of banks and the growth of the economy of Tunisia and a positive relationship was identified. Ompusunggu (2016) used a case of mining entities listed in Indonesia to link profitability and corporate social responsibility (CSR) disclosure where significant link was noted.

Locally in Kenya, Migwi (2015) explored profitability and dividend policy focusing on Kenyan commercial banks and significant relationship was noted. Otieno (2013) looked at financial

deepening and its connection with profitability of Kenyan banks. It was shown that financial deepening is an indicator of profitability of the banks. Macharia and Mungai (2021) looked at financial deepening and financial performance of Kenyan commercial banks where a positive relationship was noted. Ng'ang'a (2016) was keen to demonstrate the link between financial deepening and the growth of the economy in Kenya and a positive link was revealed.

The reviewed studies create gaps, as some were done in other countries like Jordan, Tunisia and Indonesia and not in Kenya. Other studies related profitability with other concepts like the value of the firm or dividend policy and not financial deepening. There are other studies that were carried out in different contexts like manufacturing firms and industrial firms and not specifically among commercial banks. This creates gaps that the present study sought to fill by providing answers to the following research question: what is the relationship between profitability and financial deepening among commercial banks in Kenya?

1.3 Research Objective

The objective of this study was to establish the relationship between profitability and financial deepening among commercial banks in Kenya.

1.4 Value of the Study

The finance managers of the commercial banks in Kenya would develop relevant strategies of driving profitability of the institutions so as to promote financial deepening. The other senior managers working in commercial banks in Kenya would be in a position to embrace strategies that may grow profitability and thus financial deepening. All these efforts may contribute towards the growth of Kenya's economy.

The policy makers at CBK would rely on the findings from this study to formulate and implement relevant policies that promote profitability and financial deepening. The policy makers in respective commercial banks would be able to develop relevant policies that may support financial deepening of the institutions.

The study would add to the available literature on profitability and financial deepening. The study may support or disagree with the existing theories on financial deepening. Future scholars carrying out related studies may be able to review literature of this study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter focuses on reviewing the theories, the determinants of financial deepening and the past empirical inquiries.

2.2 Theoretical Review

The financial intermediation theory and the theory of financial liberalization provided anchorage to the present study.

2.2.1 Financial Intermediation Theory

This theory was postulated by Gurley and Shaw (1960) and it argues that financial intermediaries have a critical role to play within the economic unit. The theory argue that through these financial intermediaries, financial resources are able to be transferred from net savers to net borrowers thus allowing people to invest and contribute towards growth of the economy. The theory argue that financial intermediaries are better placed to ensure that all market failures have been overcome while resolving all concerns regarding asymmetry of information. This is achieved through transformation of risk attributes of the assets in place (Nasution, Siregar & Panggabean, 2017).

The fact that borrowers have more information regarding investments relative to lender creates a situation of information asymmetry in credit markets. When there are failures arising from information, some specific forms of transaction costs may arise. The role of financial intermediaries is to pool and allocate funds within the economic units thus fostering a sense of entrepreneurship (Kumar & Bird, 2020). This means that efforts to increase the intermediation efforts may boost the level of investments and this will spur the growth of the overall economy.

This theory was relevant to this study that focuses on financial deepening. In essence, the growth in depth of financial institutions will allow them to fully realize their intermediation role in the economy.

2.2.2 The Theory of Financial Liberalization

The proponents of this theory were Mac-Kinnon (1973) and Shaw (1973). Financial liberalization is a situation where the financial sector of the economy is liberalized so as to create good conditions to spur the demand of monetary resources in the economy. The theory raises two broad ways where financial liberalization can occur in an economic system: by raising the supply of funds in the economy hence leading to supply led demand for monetary resources and by creation of relevant conditions that boost investment prospects within the economic unit. The theory argues that economies should be liberalized in order to realize growth (Xu, Hu & Das, 2019).

The implications of this theory are that efforts to liberalize the economy will spur financial deepening. The premise guiding this theory is the fact that a rise in real interest rate would raise the level of financial deepening boosting the level of savings thus greater investment prospects. Thus, this theory was used to explain how liberalization can enhance profitability of banks to allow them realize financial deepening.

2.3 Determinants of Financial Deepening among Commercial Banks in Kenya

This section discusses the factors that influence financial deepening among Kenyan commercial banks.

2.3.1 Profitability

Profitability is reflected in the ability of the entity to generate revenues from the daily activities.

Higher profits the firm generates will allow it to implement projects that would in future yield more returns to shareholders. Profitable financial institutions like KCB and Equity Bank have huge customer deposits that can allow them to advance more credit facilities to customers. Furthermore, the higher the profits generated by the institution, the greater it's lending capacity and thus the more the financial deepening effort (Adekola, 2016). The study will use ROA to operationalize profitability.

2.3.2 Bank size

One measure of the size of the financial institution is the assets in place. In Kenya, the CBK has classified banks into three tiers deepening on their deposits, assets and market share. Large banks like Equity Bank enjoy huge customer deposits with billions of assets. Large banks have the ability to finance their investment efforts as their sales growth is relatively higher (Susila, Heryanda & Putra, 2020). This study will operationalize bank size using the natural logarithm of the assets in place.

2.3.3 Capital Adequacy

Commercial banks are required by law to have an adequate capital that supports lending to customers. Banks with weak capital have limited lending ability. Sufficient capital base allow banks to respond to customer withdrawals with or without notice. Yu *et al.* (2014) said that capital adequacy indicates the maximum level of leverage that a bank can reach in the course of the operations. This limits the level of risks to a financial institution.. The study will use Total Equity to Total Assets to operationalize capital adequacy.

2.4 Empirical Literature

The study conducted by Reschiwati, Syahdina and Handayani (2020) in Indonesia focused on liquidity, profitability and the value of the firm. The inquiry covered 15 banking entities within the period of 2014 all through to 2018. It was shown that profitability is significantly linked with firm value. Harb (2019) used a case of industrial firms in Jordan to provide the link between profitability and financial performance. Leveraging data from first hand sources, it was shown that profitability and financial performance are significantly linked with each other. The study by Sabrin, Sarita, Takdir and Sujono (2016) largely focused on Indonesia among the manufacturing entities to link profitability and the value of the entities. The study covered the period from 2009 all through to 2014. It was shown that profitability and the value of the entity are significantly connected with each other.

Chen, Sun, Wei and Xie (2018) used evidence 33 international markets within the period 1990 all through to 2017. The analysis was done at country and regional level and mixed results were shown for a direct. While focusing on Tunisia, Moussa and Hdidar (2019) sought to link profitability and growth of the economy. In total, 17 banks were covered within the period 2000 all through to 2017. The study noted existence of a direct link between the growth of the economy and profitability. In Malaysia, Osazuwa and Che-Ahmad (2016) did an inquiry into profitability as a moderator variable in the link between efficiency and the value of listed entities in place. In total, 667 firms were covered in this study and a direct relationship was noted. Ompusunggu (2016) used an Indonesian case to link profitability and disclosure of the corporate social responsibility (CSR). The inquiry shared that ROE, ROA and net profit margin have a direct and significant link on CSR disclosure. The study conducted in Nigeria by Olawumi, Lateef and Oladeji (2017) largely focused on financial deepening as it is linked with performance of the banking entity. The inquiry showed

that there exists a strong link between financial deepening and performance of the banks.

Locally in Kenya, Migwi (2015) covered commercial banks focusing on profitability and dividend policy. In general, the period from 2009 all through to 2014 was covered by this inquiry. The study noted significant connection between profitability and the dividend policy. Otieno (2013) looked at financial deepening and its link with profitability. The inquiry covered Kenyan banking entities. It was shown that profitability is influenced by financial deepening in positive terms. Macharia and Mungai (2021) explored interplay between financial deepening and performance of Kenyan banks. It was shown that the deposits in banks and credit directly shape financial performance.

Ng'ang'a (2016) related financial deepening and the growth of Kenya's economy. The horizon covered was 1994 all through to 2015. Causal and longitudinal research designs were embraced by this inquiry. It emerged that financial deepening shapes and drives the growth prospects in an economic unit.

2.5 Summary of Literature and Gaps

The study conducted by Reschiwati, Syahdina and Handayani (2020) was done in Indonesia and not in Kenya. Harb (2019) used a case of industrial firms in Jordan and not in Kenya. The study by Sabrin, Sarita, Takdir and Sujono (2016) largely focused on Indonesia and not Kenya. Moussa and Hdidar (2019) sought to link profitability and growth of the economy while the present study will focus on financial deepening as the dependent. Osazuwa and Che-Ahmad (2016) used profitability as a moderator; the present study will examine it as an independent variable. Migwi (2015) used dividend policy as the dependent variable while financial deepening will be covered in the present study. Otieno (2013) focused on profitability as the dependent while the same will be used an independent variable in the current study. Macharia and Mungai (2021) used financial

performance as the dependent, financial deepening will be the dependent variable in the current study. Ng'ang'a (2016) used financial deepening as independent variable and this will be the dependent variable in the present inquiry.

2.6 Conceptual Framework

Figure 2.1 is the conceptual framework of the study.

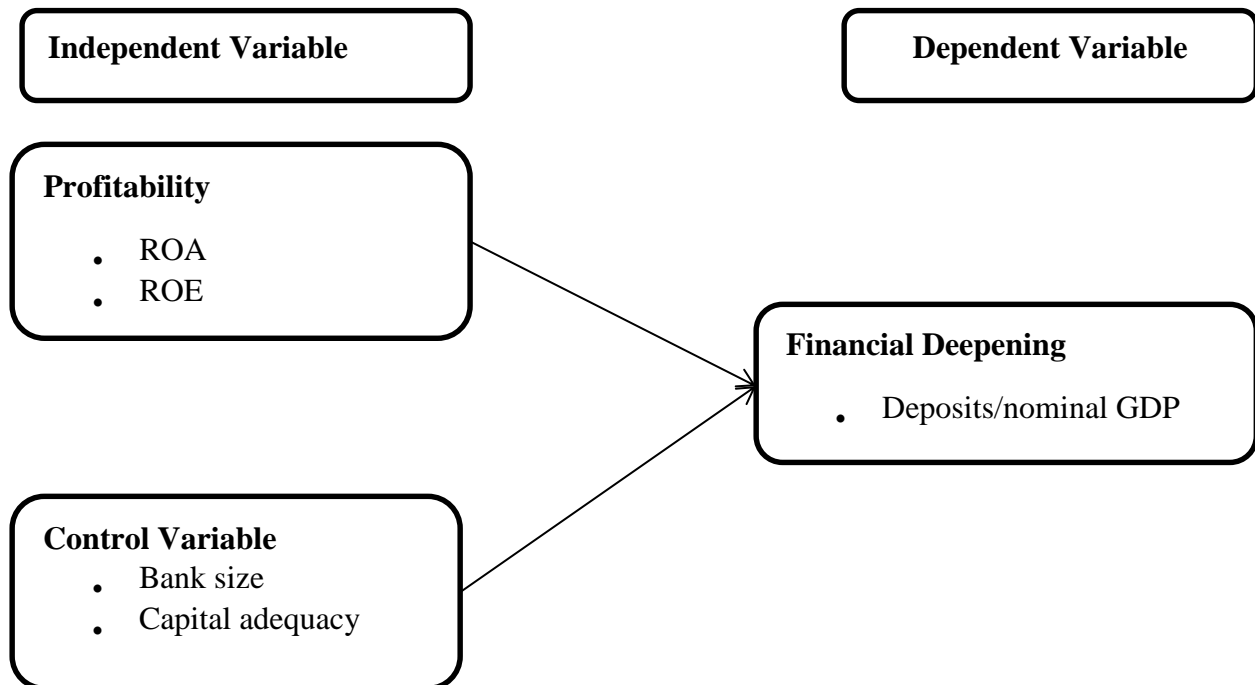


Figure 2.1: Conceptual Framework

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter is set out to detail the methodologies including the design, targeted respondents, gathering of the responses and the analysis.

3.2 Research Design

The study adopted a descriptive survey design covering quantitative methods. This allowed the researcher to gather relevant data and conduct robust analysis to draw inferences on profitability-financial deepening nexus. There are past relevant studies like Migwi (2015), Otieno (2013) and Macharia and Mungai (2021) that equally used this design.

3.3 Population

The study targeted 39 commercial banks operating in Kenya. Census was used thus all these institutions were covered. Use of census gave room to obtain information from all these institutions at once

3.4 Data Collection

The study gathered secondary data from relevant publications including the reports by the CBK and the respective banks. The period of 5-years (2016-2020) was covered by the study. Such a time frame was most current thus possible to gather information on the same. Data was gathered on the annual basis.

3.5 Data Analysis

Completely gathered data underwent cleaning before through excel before being exported to SPSS.

Means and standard deviations were generated to provide a description of the study variables.

Regression analysis was embraced as an inferential statistic.

3.5.1 Model Specification

The inquiry embraced the following regression model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where Y= Financial deepening (Deposits/nominal GDP) annually

B_0 = Constant

β_1 , β_2 , and β_3 are Coefficients

ε = error term

X_1 = ROA (Net income/Total assets) annually

X_2 = ROE (Net income/Total equity) annually

X_3 = Bank size (Natural logarithm of assets) annually

X_4 = Capital adequacy (Total equity/Total assets) annually

3.5.2 Significance Tests

The significance of the study variables was determined through the p-values. The interpretation of the p-values was done at 5%. P-value less than 0.05 indicated significant relationship.

3.5.3 Diagnostic Tests

A summary of the relevant diagnostic tests to be conducted is in Table 3.1. **Table**

3.1: Diagnostic Tests

Regression Symptom	Specific test	Threshold
Multicollinearity	Variance of Inflation Factors (VIF)	VIF within 1-10 signify absence of multicollinearity
Normality test	Skewness and Kurtosis	Values within range – or +3
Serial correlation	Durbin Watson Statistic (d)	Value of d closer of equal to 2

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1 Introduction

This chapter is set out to detail the findings of analysis of the data that was gathered from already existing sources. The specific contents in the chapter include the descriptive statistics, diagnostic tests, and correlation and regression results.

4.2 Descriptive Statistics

The study determined descriptive statistics covering means and standard deviations and presented the results in Table 4.1.

Table 4.1: Descriptive Statistics

	<u>N</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Mean</u>	<u>Std. Deviation</u>
Return on Assets	179	-.25	.16	.0116	.04094
Return on Equity	179	-3.76	.91	.0657	.37735
Bank Size	179	3.71	5.88	4.7082	.58369
Capital adequacy	179	-.36	1.00	.1648	.09557
Financial deepening	179	.00	.05	.0094	.01263

Source: Research Data (2022)

The findings in Table 4.1 indicate the average value of ROA as .0116, which means that the studied banks leveraged on their assets to generate 1.16% of their profits. The findings on ROE indicated the value of average as .0657; this implies that through equities, the study banks generated 6.57% of their profits. On bank size, the value of average was found as 4.7082, capital adequacy had an average of 0.1648 while financial deepening had .0094 respectively. It follows that commercial banks equities contributes more to profits thus financial deepening among commercial banks in Kenya as compared to assets.

4.3 Diagnostic Tests

Diagnostic tests were conducted to validate the assumptions of regression analysis. These covered multicollinearity, autocorrelation and normality tests as outlined in the subsequent sections.

4.3.1 Multicollinearity Test

Multicollinearity was conducted to validate if any of the independent variables were correlated.

The findings were determined and summarized as shown in Table 4.2.

Table 4.2: Multicollinearity Test Collinearity Statistics

	Tolerance	VIF
Return on Assets	.405	2.468
Return on Equity	.590	1.696
Bank Size	.671	1.490
Capital adequacy	.796	1.256
Average		1.728

Source: Research Data (2022)

The findings in Table 4.2 indicate the VIF values falling within the required range of 1-10 with the average figure being equivalent to 1.728. This is a clear indication of absence of multicollinearity in the data. Hence, the data was suitable for running regression analysis.

4.3.2 Autocorrelation Test

Autocorrelation condition in the data was determined through computation of the value of Durbin Watson with the results as shown in Table 4.3.

Table 4.3: Autocorrelation Test

Model	Durbin-Watson
1	1.575 ^a

Source: Research Data (2022)

As indicated in Table 4.3, the value of d is shown as 1.575, which is roughly taken as 2 when rounded off. This implies that serial correlation was not a symptom of the data collected and utilized in this study.

4.3.3 Normality Test

Normality assumption in the data was determined graphically with the findings as summarized by figures 4.1 and 4.2.

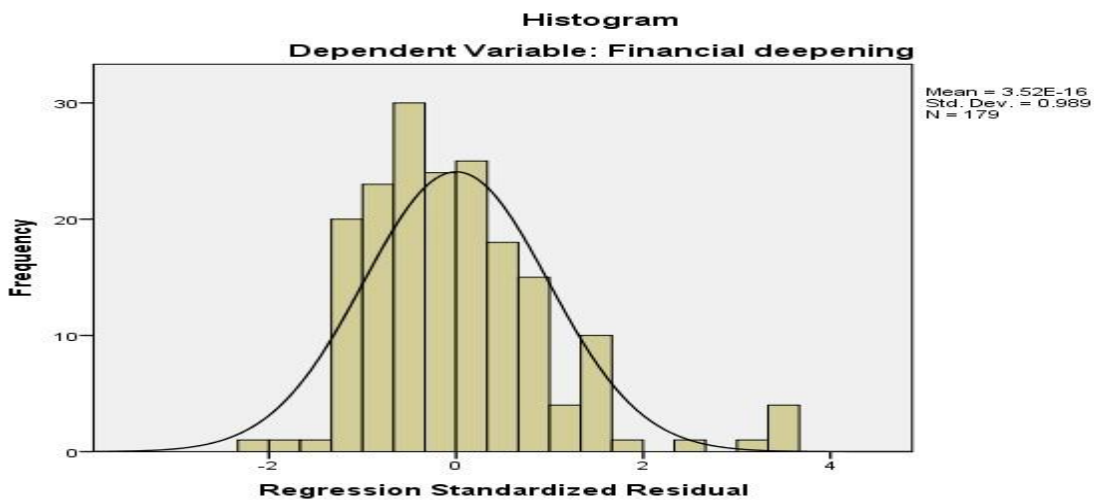


Figure 4.1: Histogram Source: Research Data (2022)

Figure 4.2 is the normal PP plot.

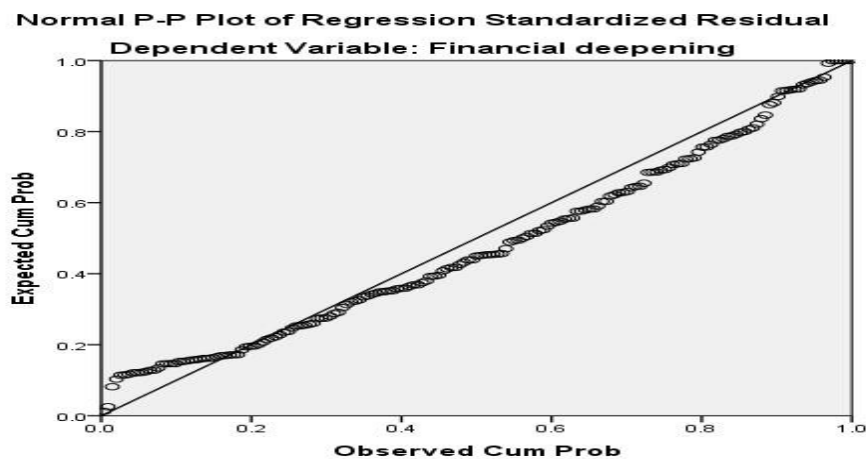


Figure 4.2: Normal PP plot

Source: Research Data (2022)

Figures 4.1 and 4.2 provide an indication of normality in the data used in this study. In other words, the data had normal distribution with standard deviation of 0.909.

4.4 Correlation Matrix

Correlation analysis was conducted to establish the relationship between profitability and financial deepening with the results as shown in Table 4.4. The value of Pearson Correlation coefficient (r) was interpreted as follows: 0-0.29, 0.3-0.49 and above 0.5 implying for weak, moderate and strong link.

Table 4.4: Correlation Results

		Financial deepening	Return on Assets	Return on Equity	Bank Size	Capital adequacy
Financial deepening	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	179				
Return on Assets	Pearson Correlation	.435	1			
	Sig. (2-tailed)	.000				
	N	179	179			
Return on Equity	Pearson Correlation	.315	.613	1		
	Sig. (2-tailed)	.000	.000			
	N	179	179	179		
Bank Size	Pearson Correlation	.864	.536**	.353**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	179	179	179	179	
Capital adequacy	Pearson Correlation	.070	.324**	.022	-.020	1
	Sig. (2-tailed)	.035	.000	.766	.793	
	N	179	179	179	179	179

Source: Research Data (2022)

The results in Table 4.4 indicate that bank size was a strong and positive correlate of financial

deepening among commercial banks in Kenya ($r=0.864$). On the other hand, ROA ($r=0.435$) and ROE ($r=0.315$) all had moderate but positive relationship with financial deepening among commercial banks. On the other hand, capital adequacy ($r=-0.070$) had a weak but positive relationship with financial deepening. It therefore follows that profitability is a positive correlate of financial deepening among commercial banks in Kenya.

4.5 Regression Results and Hypotheses Testing

In order to test the hypotheses and infer the effect of profitability on financial deepening, regression analysis was conducted. Table 4.5 is a breakdown of the model summary

Table 4.5: Model Summary	Model R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.866 ^a	.750	.744	.00639

Source: Research Data (2022)

From Table 4.5, the coefficient of determination value is determined as 0.750, this means that profitability account for 75% change in financial deepening among commercial banks in Kenya.

Thus, besides profitability, there are yet other factors that have an implication on financial deepening among commercial banks in Kenya and these should established from further studies.

The ANOVA results were determined and presented as summed up in Table 4.6. **Table 4.6: Analysis of Variance**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	.021	4	.005	130.259	.000 ^b
Residual	.007	174	.000		
Total	.028	178			

Source: Research Data (2022)

Table 4.6 v confirms that the overall regression model linking profitability and financial deepening was significant in statistical terms ($F=130.259$, $p<0.05$). The beta coefficients and significance of

the individual variables of the study was determined and presented as shown in Table 4.7.

Table 4.7: Beta Coefficients and Significance

	<u>Unstandardized Coefficients</u>		<u>Standardized</u>	t	Sig.
	B	Std. Error	<u>Coefficients</u>		
(Constant)	2.079	.245		8.486	.000
Return on Assets	.112	.028	.039	4.000	.010
Return on Equity	.101	.022	.032	4.591	.020
Bank Size	.119	.021	.873	5.667	.000
Capital adequacy	.105	.016	.040	6.563	.034

Source: Research Data (2022)

From Table 4.7, the following model is predicted between profitability and financial deepening:

$$Y=2.079+.112X_1+.101X_2+.119X_3+.105X_4$$

Where Y= Financial deepening (Deposits/nominal GDP) annually

X₁= ROA (Net income/Total assets) annually

X₂= ROE (Net income/Total equity) annually

X₃= Bank size (Natural logarithm of assets) annually

X₄= Capital adequacy (Total equity/Total assets) annually

Table 4.7 implies that ROA ($\beta=.112$, $t>1.96$ & $p<0.05$), ROE ($\beta =.101$, $t>1.96$ & $p<0.05$), bank size ($\beta =.119$, $t>1.96$ & $p<0.05$) as well as capital adequacy ($\beta =.105$, $t>1.96$ & $p<0.05$) were all significant predictors of financial deepening among commercial banks in Kenya. This implies that profitability is a significant predictor of financial deepening. Thus, more profitable banks have possibility of leveraging the profit to grow their deposits hence achieve greater financial depth as compared to the unstable and less profitable institutions.

4.6 Discussion

The results indicate that bank size was a strong and positive correlate of financial deepening among commercial banks in Kenya ($r=0.864$). On the other hand, ROA ($r=0.435$) and ROE ($r=0.315$) all had moderate but positive relationship with financial deepening among commercial banks. On the other hand, capital adequacy ($r=-0.070$) had a weak but positive relationship with financial deepening. It therefore follows that profitability is a positive correlate of financial deepening among commercial banks in Kenya. This is consistent Harb (2019) who used a case of industrial firms in Jordan to provide the link between profitability and productive efficiency where a statistically significant link was noted. Sabrin, Sarita, Takdir and Sujono (2016) looked at profitability and the value of the firm focusing on manufacturing entities in Indonesia that are listed. The study did note that profitability significantly affects the value of the firm. Moussa and Hdidar (2019) looked at profitability of banks and the growth of the economy of Tunisia and a positive relationship was identified. Ompusunggu (2016) used a case of mining entities listed in Indonesia to link profitability and corporate social responsibility (CSR) disclosure where significant link was noted.

The findings were that ROA ($\beta=.112$, $t>1.96$ & $p<0.05$), ROE ($\beta =.101$, $t>1.96$ & $p<0.05$), bank size ($\beta =.119$, $t>1.96$ & $p<0.05$) as well as capital adequacy ($\beta =.105$, $t>1.96$ & $p<0.05$) were all significant predictors of financial deepening among commercial banks in Kenya. This implies that profitability is a significant predictor of financial deepening. Thus, more profitable banks have possibility of leveraging the profit to grow their deposits hence achieve greater financial depth as compared to the unstable and less profitable institutions. These findings are consistent with Migwi (2015) who explored profitability and dividend policy focusing on Kenyan commercial banks and significant relationship was noted. Otieno (2013) looked at financial deepening and its connection with profitability of Kenyan banks. It was shown that financial deepening is an indicator of

profitability of the banks. Macharia and Mungai (2021) looked at financial deepening and financial performance of Kenyan commercial banks where a positive relationship was noted. Ng'ang'a (2016) was keen to demonstrate the link between financial deepening and the growth of the economy in Kenya and a positive link was revealed.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter is set out to provide a summary of the analyzed findings besides conclusion and recommendations. Limitations and areas for further research are also pointed out.

5.2 Summary of the Findings

This study was set out to provide the link between profitability and financial deepening. The study focused on all the commercial banks in Kenya. The analysis was conducted leveraging descriptive as well as inferential statistics. It emerged from the analysis that profitability is a positive correlate of financial deepening. This means that generation of more profits can allow a financial institution to grow its depth. It was disclosed that both ROA and ROE are equally positive correlates of financial deepening. This means that effective utilization of assets and equities to generate more profits can allow a financial institution to grow its depth.

The study established that profitability is a significant predictor of financial deepening among commercial banks. The implication of this finding is that a bank that strives to grow its financial depth should put in place relevant strategies of generating more profits. In other words, profits generated by banks are key in growth in financial depth. In particular, ROA had the greatest contribution towards profitability as compared to ROE and this collectively contributed towards financial deepening among Kenyan commercial banks.

5.3 Conclusion

Financial deepening is critical in helping the bank to remain stable and agile in the ever competitive landscape that these institutions operate. This is a complex undertaking that help the bank to mobilize more deposits and allow even the financially excluded population to access formal financial services. Banks are financial intermediaries whose role is to mobilize deposits from surplus units which are accumulated and loaned in areas with deficit. Thus, financial deepening is the very reason why commercial banks exist and operate.

Growing financial depth require commercial banks to generate more profits. Definitely, banks with more profit prospects can invest in relevant technologies and infrastructures like internet banking which are equally critical in financial deepening process. In order to improve on their profits, banks should effectively utilize the available assets and equities contributed by the shareholders. In other words, the contribution of assets and equities towards profitability and in turn on financial deepening cannot be underestimated.

5.4 Recommendations

The finance managers of commercial banks in Kenya should come up with sound strategies aimed at improving profits so as to contribute towards financial deepening. Such strategies can include adoption of latest and state of the art technologies through financial innovation. The assets and equities of the commercial banks in Kenya should be effectively utilized to generate more profits that can allow these institutions to grow their financial depth.

The policy makers of the commercial banks in Kenya should develop sound policies and strategies aimed at enhancing the profits generated and thus improving on financial depth. The policy makers at the CBK should develop relevant and sound regulations that encourage and promote financial

deepening among commercial banks. The policy makers at KBA should also develop relevant policies for their members that encourage financial deepening.

5.5 Limitations of the Study

The study was limited to profitability and financial deepening interplay. The specific proxies of profitability were ROA and ROE. In addition to these variables, the study covered two control variables being bank size and capital adequacy.

Theoretically, the study was limited on financial intermediation theory and the theory of financial liberalization. The financial intermediation through was the main theory of the study as it anchored the dependent variable financial deepening. On the other hand, the theory of financial liberalization implies that opening up the economy would facilitate the process of financial deepening.

Contextually, the study was limited to commercial banks operating in Kenya. The study relied on secondary data collected from these banks. The time frame during data gathering was 2016 all through to 2020. This was an ideal period that was current and thus getting data within the same was easier.

5.6 Suggestions for Further Research

Future studies should be conducted away from commercial banks to cover other firms like insurance companies, microfinance institutions as well as deposit taking SACCOs. This will provide room for comparison of the results across the industries.

The focus of future studies should be other dependent variable aside from financial deepening. These can include financial inclusion or financial stability. Additional variables like moderating or intervening ones should be incorporated in further studies.

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Appendix I: Data Collection Sheet

Year	Deposits	nominal GDP	Net income	Total assets	Total equity
2016					
2017					
2018					
2019					
2020					

Appendix II: List of Commercial Banks in Kenya

Tier I

1. KCB Bank Kenya Ltd
2. Equity Bank Kenya Ltd
3. NCBA Bank Kenya PLC
4. Co-operative Bank of Kenya Ltd
5. Absa Bank Kenya Plc
6. Standard Chartered Bank (K) Ltd
7. Diamond Trust Bank Kenya Limited
8. I & M Bank Limited
9. Stanbic Bank Kenya

Tier II

1. Bank of Baroda (K) Limited
2. Prime Bank Ltd
3. Citibank N.A. Kenya 2
4. National Bank of Kenya Ltd
5. Family Bank Ltd
6. Bank of India
7. Eco bank Kenya Ltd
8. SBM Bank Kenya Ltd
9. HFC Ltd

Tier III

1. Victoria Commercial Bank Limited
2. Guaranty Trust Bank Limited
3. Bank of Africa Ltd
4. Gulf African Bank Limited
5. African Banking Corporations Ltd
6. Sidian Bank Ltd
7. Habib Bank A.G Zurich
8. Credit Bank Ltd
9. First Community Bank Ltd
10. UBA Kenya Bank Ltd
11. Development Bank of Kenya Ltd
12. Guardian Bank Limited
13. Mayfair CIB Bank Ltd
14. M Oriental Commercial Bank Limited
15. Kingdom Bank Limited
16. DIB Bank Kenya Ltd
17. Consolidated Bank of Kenya Limited
18. Paramount Bank Ltd
19. Middle East Bank (K) Ltd
20. Access Bank Plc
21. Spire Bank Limited
22. Imperial Bank Ltd*

23. Chase Bank (K) Ltd**
24. Charterhouse Bank Ltd** Source: CBK (2020)

Appendix III: Secondary Data

Year	Bank Name	Return on Assets	Return on Equity	Bank Size	Capital adequacy	Financial deepening
2016	Standard Chartered Bank	0.05100	0.29072	5.39842	0.17543	0.02516
2016	Barclays Bank	0.04023	0.24801	5.41413	0.16222	0.02614
2016	Co-operative Bank of Kenya	0.05150	0.30017	5.54407	0.17156	0.03382
2016	NCBA	0.03601	0.27641	5.32403	0.13026	0.02123
2016	Equity Bank	0.05998	0.43518	5.57950	0.13783	0.03649
2016	Kenya Commercial Bank(KCB)	0.05642	0.35167	5.70310	0.16045	0.05088
2016	Family Bank	0.00912	0.05016	4.84156	0.18175	0.00546
2016	I&M Bank	0.05271	0.27635	5.21515	0.19075	0.01561
2016	Diamond Trust Bank	0.03636	0.24363	5.38761	0.14924	0.02244
2016	Bank of Africa	-0.00029	-0.00190	4.74816	0.15033	0.00483
2016	Housing Finance	0.02122	0.14783	4.83305	0.14357	0.00511
2016	Eco bank	-0.06131	-0.39537	4.67324	0.15506	0.00425
2016	Prime Bank	0.03575	0.21562	4.81517	0.16581	0.00647
2016	Bank of Baroda	0.04675	0.27248	4.91859	0.17158	0.00854
2016	CFC Stanbic Bank	0.03372	0.22852	5.31153	0.14758	0.01618
2016	Citibank	0.05839	0.30735	5.01420	0.18998	0.00858
2016	Guaranty Trust Bank	0.02225	0.07877	4.47157	0.28245	0.00225
2016	National Bank	0.00141	0.01473	5.06113	0.09552	0.01289
2016	Bank of India	0.04570	0.22913	4.67956	0.19944	0.00419
2016	Development Bank	0.00579	0.03272	4.21532	0.17682	0.00087
2016	Paramount Universal Bank	0.01114	0.06387	3.97437	0.17439	0.00102
2016	ABC Bank	0.00990	0.07407	4.35067	0.13366	0.00212
2016	Jamii Bora Bank	-0.03116	-0.13649	4.19656	0.22831	0.00104
2016	Credit Bank	0.01295	0.06423	4.08643	0.20161	0.00118
2016	Equatorial Commercial Bank	-0.07013	-0.53275	4.13994	0.13165	0.00112
2016	Guardian Bank	0.02054	0.13634	4.16747	0.15063	0.00162
2016	Victoria Bank	0.03553	0.15731	4.35031	0.22586	0.00207
2016	Middle East Bank	-0.01930	-0.08473	3.71883	0.22774	0.00051
2016	Oriental Commercial Bank	0.00363	0.01228	3.99651	0.29546	0.00091
2016	Trans-National Bank	0.01529	0.07718	4.01974	0.19809	0.00104
2016	First Community Bank	-0.00274	-0.02633	4.17499	0.10406	0.00167

2016	UBA Bank	0.00893	0.02333	3.74827	0.38261	0.00023
2016	Gulf Bank	0.02777	0.17230	4.43387	0.16114	0.00279
2016	Habib A.G Zurich Bank	0.03652	0.20978	4.23129	0.17407	0.00155
2016	Sidian Bank	0.00297	0.01602	4.31963	0.18534	0.00180

2016	Consolidated Bank	-0.01990	-0.19743	4.14358	0.10080	0.00126
2017	Standard Chartered Bank	0.03335	0.21331	5.45504	0.15637	0.02515
2017	Barclays Bank	0.03683	0.22971	5.43406	0.16033	0.02195
2017	Co-operative Bank of Kenya	0.16171	0.90735	5.58301	0.17822	0.03366
2017	NCBA	0.03132	0.22771	5.36083	0.13755	0.02103
2017	Equity Bank	0.05681	0.37292	5.60896	0.15233	0.03521
2017	Kenya Commercial Bank(KCB)	0.04944	0.30871	5.74479	0.16016	0.05189
2017	Family Bank	-0.01985	-0.11811	4.83917	0.16811	0.00559
2017	I&M Bank	0.04086	0.21460	5.26471	0.19040	0.01565
2017	Diamond Trust Bank	0.03046	0.19133	5.43150	0.15923	0.02245
2017	Bank of Africa	0.00065	0.00413	4.73393	0.15626	0.00372
2017	Housing Finance	0.00633	0.03945	4.79328	0.16037	0.00435
2017	Eco bank	-0.02683	-0.22271	4.72800	0.12045	0.00515
2017	Prime Bank	0.02586	0.13789	4.88331	0.18758	0.00000
2017	Bank of Baroda	0.05256	0.28229	4.98287	0.18620	0.00678
2017	CFC Stanbic Bank	0.02339	0.16940	5.37914	0.13805	0.01804
2017	Citibank	0.06488	0.31585	4.99225	0.20540	0.00759
2017	Guaranty Trust Bank	0.00872	0.02799	4.44135	0.31160	0.00178
2017	National Bank	0.00673	0.10499	5.04116	0.06411	0.01114
2017	Bank of India	0.04724	0.23011	4.75305	0.20528	0.00369
2017	Development Bank	0.00355	0.01980	4.21272	0.17953	0.00074
2017	Paramount Universal Bank	0.01006	0.05455	3.97959	0.18447	0.00091
2017	ABC Bank	0.00818	0.06424	4.39452	0.12740	0.00232
2017	Jamii Bora Bank	-0.05929	-0.22061	4.10894	0.26877	0.00063
2017	Credit Bank	0.01237	0.06717	4.16032	0.18424	0.00129
2017	Equatorial Commercial Bank	-0.14137	-1.32660	4.04720	0.10657	0.00080
2017	Guardian Bank	0.01443	0.09600	4.19874	0.15029	0.00155
2017	Victoria Bank	0.03267	0.15128	4.41472	0.21597	0.00220
2017	Middle East Bank	-0.00801	-0.03528	3.70935	0.22691	0.00046

2017	Oriental Commercial Bank	0.01097	0.03831	4.02436	0.28628	0.00088
2017	Trans-National Bank	0.00525	0.02533	4.01263	0.20709	0.00093
2017	First Community Bank	0.01244	0.12639	4.23955	0.09844	0.00174
2017	UBA Bank	0.00215	0.00648	3.81325	0.33236	0.00035
2017	Gulf Bank	0.00811	0.05748	4.49577	0.14111	0.00307
2017	Habib A.G Zurich Bank	0.02186	0.14391	4.27203	0.15191	0.00147
2017	Sidian Bank	-0.03279	-0.18364	4.28560	0.17858	0.00150
2017	Consolidated Bank	-0.03262	-0.41105	4.12892	0.07937	0.00102
2018	Standard Chartered Bank	0.04016	0.25219	5.45437	0.15925	0.02392

2018	Barclays Bank	0.03150	0.23621	5.51237	0.13337	0.02217
2018	Co-operative Bank of Kenya	0.04307	0.25742	5.61098	0.16732	0.03249
2018	NCBA	0.03423	0.23545	5.36608	0.14538	0.01951
2018	Equity Bank	0.05560	0.40244	5.64198	0.13817	0.03650
2018	Kenya Commercial Bank(KCB)	0.05048	0.32095	5.79360	0.15729	0.05090
2018	Family Bank	0.00628	0.03675	4.82549	0.17077	0.00513
2018	I&M Bank	0.03808	0.22759	5.36014	0.16730	0.01875
2018	Diamond Trust Bank	0.03291	0.19418	5.44950	0.16949	0.02193
2018	Bank of Africa	0.00427	0.03111	4.69091	0.13725	0.00318
2018	Housing Finance	-0.00692	-0.04313	4.75651	0.16055	0.00367
2018	Eco bank	0.00250	0.02126	4.73611	0.11766	0.00471
2018	Prime Bank	0.02120	0.09065	4.99359	0.23382	0.00000
2018	Bank of Baroda	0.04194	0.25271	5.08996	0.16595	0.00753
2018	CFC Stanbic Bank	0.03131	0.25434	5.44863	0.12312	0.02104
2018	Citibank	0.06589	0.29073	4.93267	0.22664	0.00580
2018	Guaranty Trust Bank	0.01213	0.03633	4.40352	0.33380	0.00168
2018	National Bank	0.00510	0.08471	5.06124	0.06024	0.01052
2018	Bank of India	0.03905	0.18557	4.79719	0.21043	0.00427
2018	Development Bank	0.01102	0.05879	4.18535	0.18738	0.00060
2018	Paramount Universal Bank	0.01525	0.08937	3.99508	0.17065	0.00084
2018	ABC Bank	0.00579	0.04431	4.43477	0.13070	0.00225
2018	Jamii Bora Bank	-0.03832	-0.21677	4.00021	0.17679	0.00043
2018	Credit Bank	0.01866	0.11603	4.25055	0.16080	0.00135

2018	Equatorial Commercial Bank	-0.03333	0.29846	3.96488	-0.11167	0.00069
2018	Guardian Bank	0.02150	0.13611	4.20914	0.15799	0.00138
2018	Victoria Bank	0.01748	0.09477	4.50970	0.18440	0.00248
2018	Middle East Bank	0.00010	0.00044	3.72923	0.21599	0.00043
2018	Oriental Commercial Bank	0.01002	0.03436	4.02181	0.29150	0.00076
2018	Trans-National Bank	-0.00962	-0.05105	4.01011	0.18842	0.00083
2018	First Community Bank	-0.01557	-0.21903	4.25238	0.07109	0.00152
2018	UBA Bank	0.00154	0.01088	4.18560	0.14181	0.00062
2018	Gulf Bank	0.00877	0.06540	4.52278	0.13407	0.00280
2018	Habib A.G Zurich Bank	0.01668	0.11815	4.33286	0.14120	0.00161
2018	Sidian Bank	-0.02219	-0.13923	4.40362	0.15939	0.00177
2018	Consolidated Bank	-0.02728	-0.37993	4.11016	0.07180	0.00089
2019	Standard Chartered Bank	0.04198	0.26876	5.48043	0.15621	0.02306
2019	Barclays Bank	0.03170	0.26900	5.57300	0.11782	0.02363

2019	Co-operative Bank of Kenya	0.04521	0.26367	5.65284	0.17145	0.03219
2019	NCBA	0.01998	0.13383	5.66735	0.14932	0.03513
2019	Equity Bank	0.05118	0.37151	5.70546	0.13776	0.03716
2019	Kenya Commercial Bank(KCB)	0.04921	0.35833	5.82885	0.13734	0.05234
2019	Family Bank	0.01715	0.10898	4.89684	0.15735	0.00569
2019	I&M Bank	0.04725	0.25550	5.40526	0.18492	0.01910
2019	Diamond Trust Bank	0.03230	0.17844	5.45826	0.18103	0.02155
2019	Bank of Africa	-0.06659	-0.68518	4.64341	0.09718	0.00325
2019	Housing Finance	-0.00041	-0.00041	4.75651	1.00000	0.00371
2019	Eco bank	0.00323	0.03705	4.87724	0.08713	0.00647
2019	Prime Bank	0.02258	0.10045	5.03657	0.22480	0.00793
2019	Bank of Baroda	0.03814	0.23825	5.15628	0.16009	0.01164
2019	CFC Stanbic Bank	0.02815	0.21160	5.46643	0.13303	0.02004
2019	Citibank	0.05847	0.29646	4.98484	0.19723	0.00637
2019	Guaranty Trust Bank	0.01689	0.05577	4.46363	0.30285	0.00185
2019	National Bank	-0.00733	-0.07017	5.04933	0.10448	0.00947
2019	Bank of India	0.04475	0.18018	4.79618	0.24835	0.00456
2019	Development Bank	0.07402	0.28777	4.18634	0.25722	0.00059

2019	Paramount Universal Bank	0.00820	0.04816	4.01884	0.17027	0.00083
2019	ABC Bank	0.00573	0.04452	4.45759	0.12864	0.00224
2019	Jamii Bora Bank	-0.13319	-3.75716	3.93372	0.03545	0.00047
2019	Credit Bank	0.01393	0.10001	4.33326	0.13929	0.00169
2019	Equatorial Commercial Bank	-0.06609	0.82145	3.83634	-0.08046	0.00044
2019	Guardian Bank	0.01529	0.09141	4.21448	0.16726	0.00128
2019	Victoria Bank	0.01853	0.10518	4.55718	0.17621	0.00267
2019	Middle East Bank	0.00704	0.05159	3.92769	0.13652	0.00070
2019	Oriental Commercial Bank	0.00520	0.02118	4.09320	0.24554	0.00090
2019	Trans-National Bank	-0.00603	-0.03093	3.96931	0.19509	0.00069
2019	First Community Bank	0.00989	0.12686	4.27330	0.07792	0.00159
2019	UBA Bank	0.00656	0.04710	4.20651	0.13934	0.00133
2019	Gulf Bank	0.00621	0.04704	4.54559	0.13196	0.00271
2019	Habib A.G Zurich Bank	0.01552	0.12520	4.39486	0.12397	0.00200
2019	Sidian Bank	0.00244	0.01605	4.42245	0.15190	0.00176
2019	Consolidated Bank	-0.04356	-0.25848	4.07429	0.16854	0.00086
2020	Standard Chartered Bank	0.02154	0.13975	5.51305	0.15411	0.02385
2020	Barclays Bank	0.02196	0.18457	5.57742	0.11899	0.02359
2020	Co-operative Bank of Kenya	0.03414	0.19815	5.69620	0.17229	0.03436
2020	NCBA	0.01415	0.09656	5.69162	0.14651	0.03622
2020	Equity Bank	0.02128	0.16387	5.82455	0.12985	0.04620
2020	Kenya Commercial Bank(KCB)	0.03110	0.21197	5.87987	0.14673	0.05474
2020	Family Bank	0.01464	0.10074	4.95709	0.14529	0.00652
2020	I&M Bank	0.03628	0.19664	5.45266	0.18452	0.02029
2020	Diamond Trust Bank	0.01263	0.07296	5.49442	0.17307	0.01934
2020	Bank of Africa	-0.01514	-0.12548	4.65241	0.12064	0.00260
2020	Housing Finance	-0.01768	-0.11677	4.73622	0.15138	0.00372
2020	Eco bank	0.00006	0.00085	4.97510	0.07487	0.00746
2020	Prime Bank	0.01591	0.07425	5.06522	0.21430	0.00823
2020	Bank of Baroda	0.03482	0.21708	5.22093	0.16040	0.01255
2020	CFC Stanbic Bank	0.01955	0.14901	5.50377	0.13122	0.02016
2020	Citibank	0.05148	0.24758	5.02716	0.20792	0.00736
2020	Guaranty Trust Bank	0.01577	0.05365	4.49509	0.29389	0.00198

2020	National Bank	0.00247	0.02622	5.10326	0.09410	0.00923
2020	Bank of India	0.03638	0.15308	4.87581	0.23763	0.00455
2020	Development Bank	0.00110	0.00497	4.23608	0.22198	0.00058
2020	Paramount Universal Bank	0.00853	0.05076	4.05607	0.16796	0.00086
2020	ABC Bank	0.00450	0.03852	4.51379	0.11690	0.00254
2020	Jamii Bora Bank	-0.00405	-0.09538	4.48589	0.04247	0.00047
2020	Credit Bank	0.00035	0.00249	4.36446	0.13904	0.00164
2020	Equatorial Commercial Bank	-0.24580	0.69066	3.70876	-0.35589	0.00045
2020	Guardian Bank	0.00457	0.02717	4.22681	0.16811	0.00123
2020	Victoria Bank	0.01267	0.07116	4.57852	0.17802	0.00263
2020	Middle East Bank	0.00953	0.08242	4.04226	0.11559	0.00089
2020	Oriental Commercial Bank	0.00331	0.01400	4.11344	0.23650	0.00091
2020	Trans-National Bank	-0.19809	-1.42251	4.00634	0.13925	0.00073
2020	First Community Bank	0.01084	0.11604	4.34138	0.09345	0.00175
2020	UBA Bank	0.00299	0.02481	4.27284	0.12042	0.00072
2020	Gulf Bank	0.01485	0.11116	4.57580	0.13356	0.00279
2020	Habib A.G Zurich Bank	0.01657	0.14076	4.43476	0.11774	0.00202
2020	Sidian Bank	0.00310	0.02549	4.52504	0.12179	0.00212
2020	Consolidated Bank	-0.02033	-0.14262	4.11012	0.14256	0.00086