KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI, GHANA.
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
INSTITUTE OF DISTANCE LEARNING
SCHOOL OF BUSINESS

KNUST

THE EFFECT OF LIQUIDITY AND FINANCIAL LEVERAGE ON FIRM PERFORMANCE: EVIDENCE FROM LISTED BANKS IN GHANA

BY
NARH DESMOND TETTEH (BSC. ACCOUNTING)

A THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING AND FINANCE, COLLEGE OF HUMANITIES AND SOCIAL SCIENCES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF SCIENCE ACCOUNTING AND FINANCE

NOVEMBER, 2023.

DECLARATION

I hereby declare that, this submission is my own work towards the degree in Master of Science in Accounting and Finance and that to the best of my knowledge, it contains no materials previously published by another person or group nor material which has been accepted for the award of any other degree of the university, except where due acknowledgement has been made in the text.

Narh Desmond Tetteh …… ……

(PG9398721) Signature Date

Certified by:

Dr. Kwame Mireku …… ……

(Supervisor) Signature Date

Certified by:

Prof. K.O. Appiah …… ……

(Head of Department) Signature Date

DEDICATON

I dedicate this thesis to my lovely wife Benedicta Deku and my parents Mr. Akuffo Moses Narh and Comfort Narh for their support. God bless you all.

KNUST

ACKNOWLEDGEMENT

I express my sincere gratitude to the Almighty God for the wealth of his grace, mercy, guidance, strength and protection throughout this program.

Furthermore, my deepest gratitude goes to my supervisor, Dr. Kwame Mireku who supported me in coming out with this work. I say God bless you.

KNUST

ABSTRACT

The banking sector has contributed more to the economy of the nation as compared to the manufacturing and other sectors in Ghana. The main aim of this study is to examine the effect of liquidity and financial leverage on firm performance of listed banks on the Ghana Stock Exchange (GSE) from 2016–2021. Nine (9) banks were analysed in this study. Regression analysis is being used in this study to determine the relationship between the variables being investigated. Specifically, this study adapted multiple linear regression analysis. The study finds that, debt to asset ratio, current ratio and quick ratio had a positive pearson correlation with return on asset and return on equity according to the correlation matrix. But debt to equity ratio had a negative pearson correlation with return on asset and return on equity. The regression coefficient shown that financial leverage (debt to asset) had a significant effect on the firm performance of the banks listed on the Ghana Stock Exchange (GSE). The study recommends that managers of the various banks listed on the Ghana Stock Exchange (GSE) should focus on debt to asset ratio as one of their solvency indicators ahead of debt to equity, current ratio and quick ratio. Also, further studies should also be carried out on the impact of financial leverage and liquidity on firms' performance among the banking firms in other West African countries.

KNUST

NYANSAPƆ WƆ SANE NO BADWENMA

TABLE OF CONTENTS

DECLARATION ..... **i**

DEDICATON ..... **ii**

ACKNOWLEDGEMENT ..... **iii**

ABSTRACT ..... **iv**

CHAPTER ONE **1**

INTRODUCTION **1**

1.0 BACKGROUND OF THE STUDY 1

1.1 PROBLEM STATEMENT 3

1.2 OBJECTIVE OF THE STUDY 4

1.3 RESEARCH QUESTIONS 5

1.4 SIGNIFICANCE OF THE STUDY 5

1.5 SCOPE AND LIMITATION OF THE STUDY 6

1.6 ORGANIZATION TO THE STUDY 7

CHAPTER TWO **8**

LITERATURE REVIEW **8**

2.0 INTRODUCTION 8

2.1 CONCEPTUAL REVIEW 8

2.1.1 Liquidity 8

2.1.2 Financial Leverage 9

2.1.3 Firm Performance 11

2.1.4 Banking in Ghana 12

2.2 THEORETICAL REVIEW 13

2.2.1 Asset Theory 13

2.2.2 Agency Theory 15

2.3 EMPIRICAL REVIEW 15

2.3.1 Trend of Liquidity and Financial Leverage 15

2.3.2 Liquidity and Firms Performance 18
2.3.3 Financial Leverage and Firms Performance 19
2.3.4 Financial Leverage, Liquidity and Firms Performance 21
2.4 CONCEPTUAL FRAMEWORK 21
CHAPTER THREE **23**
RESEARCH METHODOLOGY **23**
3.0 INTRODUCTION 23
3.1 STUDY DESIGN 23
3.3 DATA COLLECTION 24
3.4 DATA ANALYSIS 24
3.5.1 MODEL SPECIFICATIONS 24
3.5.2 JUSTIFICATION OF VARIABLES 26
3.6 VALIDITY AND RELIABILITY 26
CHAPTER FOUR **28**
DATA ANALYSES AND DISCUSSIONS **28**
4.0 INTRODUCTION 28
4.1 TEST OF HETEROSCEDASTICITY 28
4.2 DESCRIPTIVE STATISTICS 29
4.3 TREND ANALYSIS OF LIQUIDITY AND FINANCIAL LEVERAGE 31
4.3.1 Trend Analysis of Average Debt to Assets (DA) 31
4.3.2 Trend Analysis of Average Debt to Equity (DE) 33
4.3.3 Trend Analysis of Average Current Ratio (CR) 34
4.3.4 Trend Analysis of Average Quick Ratio (QR) 35
4.4 LIQUIDITY AND FIRMS PERFORMANCE 36
4.4.1 Correlation Matrix 36
4.4.2 Linear Regression 40
4.5 FINANCIAL LEVERAGE AND FIR004DS PERFORMANCE 44

4.6 FINANCIAL LEVERAGE, LIQUIDITY AND FIRMS PERFORMANCE... 45

4.6 DISCUSSION OF RESULTS 46

CHAPTER FIVE **50**

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS **50**

5.0 INTRODUCTION..... 50

5.1 SUMMARY OF FINDINGS 50

5.1.1 Trends of Financial Leverage and Liquidity..... 50

5.1.2 Liquidity and Firm Performance..... 50

5.1.3 Financial Leverage and Firm Performance..... 51

5.1.4 Financial Leverage, Liquidity and Firm Performance..... 52

5.2 CONCLUSION 52

5.3 RECOMMENDATIONS..... 54

5.3.1 Recommendations of the study..... 54

5.3.2 Recommendation for further studies..... 54

REFERENCES..... **55**

KNUST

LIST OF TABLES

Table 3.1 Justification of variables 26

Table 4.1: Summary of Descriptive Statistics..... 30

Table 4.2: Correlation Matrix 38

Table 4.3: Model Summary (ROA) 40

Table 4.4: ANOVA (ROA)..... 41

Table 4.5: Coefficients (ROA)..... 42

Table 4.6: Model Summary (ROE)..... 42

Table 4.7: ANOVA (ROE) 43

Table 4.8: Coefficients (ROE) 43

KNUST

LIST OF FIGURES

Figure 2.1: Conceptual Framework 22

Figure 4.1 Heteroscedasticity..... 29

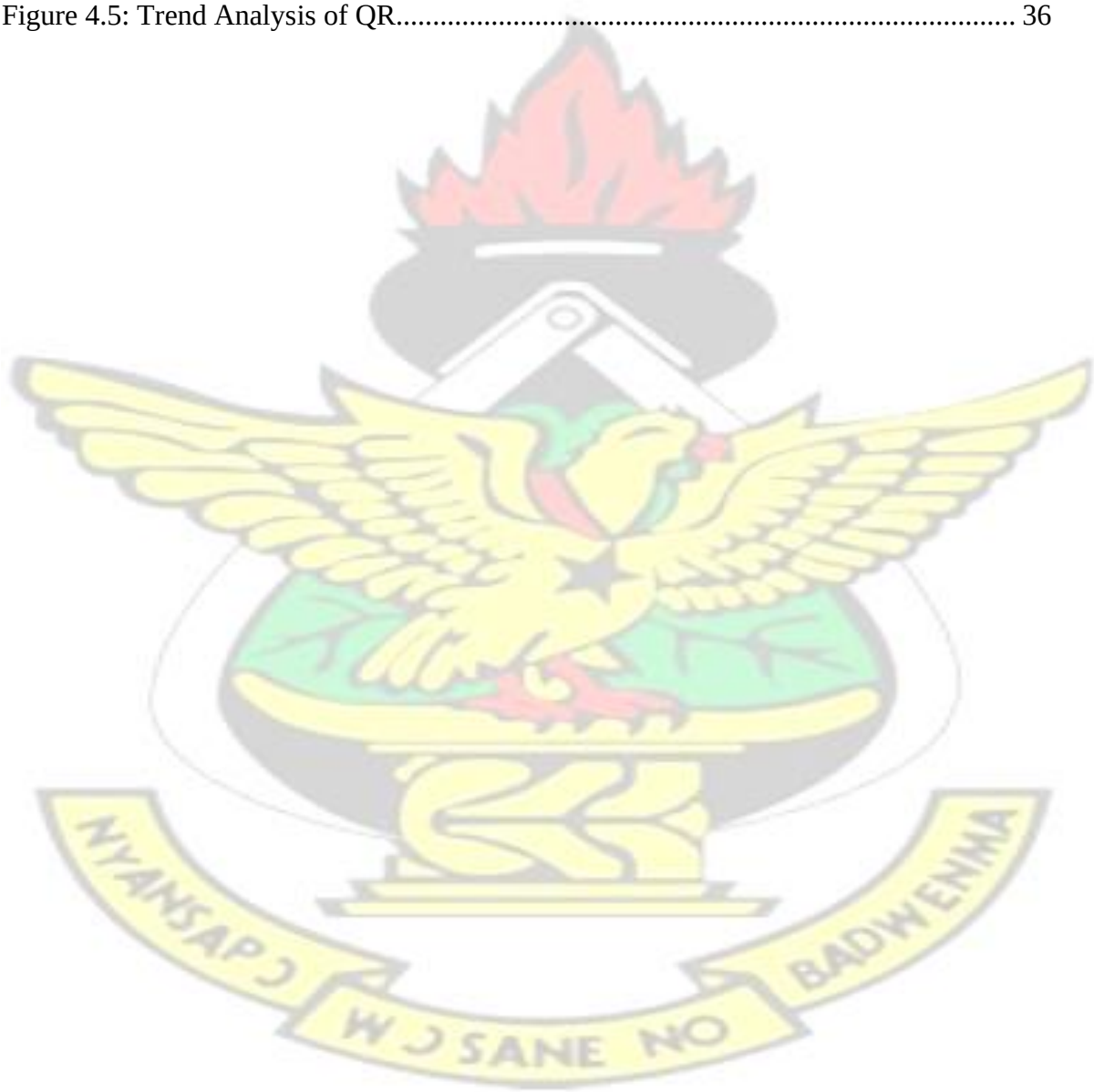
Figure 4.2: Trend Analysis of DA 32

Figure 4.3: Trend Analysis of DE..... 33

Figure 4.4: Trend Analysis of CR..... 35

Figure 4.5: Trend Analysis of QR..... 36

KNUST



LIST OF ABBREVIATIONS

ROA…….. Return on Asset

ROE…….. Return on Equity

DA…… Debt to Asset

DE……..……. Debt to Equity

CR…… Current Ratio

QR…….. Quick Ratio

GSE……Ghana Stock Exchange

IR ……... Inflation Rate

ER ……. Exchange Rate

KNUST

CHAPTER ONE

INTRODUCTION

1.0 BACKGROUND OF THE STUDY

Most businesses, no matter how big or little needs money to run. Large businesses, in particular, require funds to increase or expand their activities and services. Every company's goal is to maximize owner wealth through profit, and in order to do this, they must find funding to support their operations and activities (Schückes & Gutmann, 2021). Firms can finance their expansion through a variety of sources of funding. Basically, there are two types of funding sources: internal financing, which comprises reserves and retained earnings, and external financing, which involved processes loans, bond issuance, and issuance of common and preferred shares. As per Zaitoun and Alqudah (2020), corporations aim to maximize shareholders' value, and liquidity and financial leverage are given a lot of consideration. Due to their popularity and high level of public confidence, banks have become the world's largest intermediary. The banking industry contributes roughly 7.7% of Gross Domestic Product (GDP) (Haralayya & Aithal, 2021).

An important concern for every overall company activity depends on liquidity and financial leverage, therefore in order for the entity to operate efficiently and successfully, the financial owners and executives of the entity must show considerable concern regarding the results of the firm’s growth (Hongli et al., 2019). According to the "Liquidity Contra Profitability Principle," there is a difference between liquidity and profitability; increasing one usually requires reducing the other (Hossain & Alam, 2019). Similar to how liquidity was treated in research on banks performance (Almaqtari et al., 2019), which classed as management adjustable internal determinants, liquidity is a factor that affects profitability.

The current ratio, quick ratio and defensive interval ratio are across the different liquidity ratios used by businesses to control their short-term obligations (Robinson et al., 2015). These ratios substantially affect the financial results of businesses. Receivables, inventory, investments for trade, and cash that are constantly coming in and going out of the organizations are all examples of current assets. On the other hand, current liabilities are short-term obligations, like creditor accounts. The willingness of an organization to fulfil its immediate obligations is indicated by its liquidity ratios. However, the weak ratios could mean that the business is having problems making payments on its short-term debt.

More specifically, for decades, financial analysts and academics have found the primary concerns of financial leverage and business performance decisions to be the most important and interesting topics. Banafa et al. (2015) assert that, financial leverage is a crucial consideration when choosing a financial structure, therefore managers of businesses in developing nations must weigh the benefits and drawbacks of outsourcing before making a decision. Another way to raise money to finance company operations is through financial leverage, and management and the financial manager's choices regarding asset purchases and activity expansion can have a favourable impact on the performance of the organization. Additionally, depending on the business's activities, the decision to use financial leverage may either boost the firm's profit or negatively affect performance owing to the failure to repay borrowed funds. Financial leverage is the term for an outside source of funding that an organization uses to finance a project and purchase more assets without using an excessive amount of equity.

Macroeconomic factors, which provide light on a nation's economic health, are a crucial component of fundamental analysis for traders. A US Bank Asset Management Group study found that over the past 30 years, stock prices have surpassed inflation. Mid-sized

organizations have a deeper affiliation with inflation than smaller companies, while larger companies have a stronger influence on inflation than smaller companies. Economic figures have a favourable impact on firm's value, claims Yunan (2020). Derbali and Jamel (2018) discovered that, in Tunisia, macroeconomic indices have a detrimental impact on business value.

The subject of financial leverage and liquidity has been of much interest to stakeholders as many studies has been done about it. Ahmad et al. (2015) made a study on financial leverage and organization's profitability among the cement producing industry in Pakistan. In India, Goel et al. (2015) did a study on running liquidity and financial leverage from Indian machinery industry. In African, Banafa (2015) did research on the effect of leverage on organizational performance in Kenya. Then, Ibhagui and Olokoyo (2018) studied the leverage and firm performance among firms in Nigeria. Edem (2017) made research on liquidity operation and performance in Nigeria. Down here in Ghana, Boadi and Li (2015) did a search on the financial leverage and firms' performance of non-financial companies which neglected the banks. Also, Hongli et al. (2019) studied the impact of liquidity and financial Leverage on firm output among manufacturing firms in Ghana.

1.1 PROBLEM STATEMENT

The banking sector has contributed more to the economy of the nation as compared to the manufacturing and other sectors in Ghana. So, the banking sector clean up exercise in 2017 did affected the economy of Ghana greatly. Since then, more awareness has been placed on the liquidity and financial leverage of the banking firms in Ghana. Georgeta and Elena (2016), did a study in this regard in Romania. Al Nimer et al. (2015) then concentrated on the banking sector as their study was done in Jordan about the liquidity of banks. In Ghana, Boadi and Li (2015) did a study on financial leverage and financial performance of listed

non-financial firms in Ghana which neglected the banks. Also, Boadi and Li (2015) used data from 2004-2010 with a gap from 2011 to 2021. One of the most current studies done in Ghana concerning the impact of liquidity and financial leverage on firms' performance was a studied by Hongli et al. (2019). Hongli et al. (2019) examined the impact of liquidity on the financial performance on manufacturing firms. Also, Hongli et al. (2019) targeted the impact of financial leverage on the financial performance on manufacturing firms. But, the study by Hongli et al. (2019) did have a gap in its literature and this study aims to fill. The study by Hongli et al. (2019) was on only manufacturing firms leaving the industrial gap in literature. Also, the study by Hongli et al. (2019) gathered data from 2007 to 2015 as the time gap in literature needs to be filled. This research seeks to fill the industrial and time gap in the study by Hongli et al. (2019). Then, this study would focus on the impact and effect of liquidity and financial leverage on the banks in Ghana. Therefore, the aim of this study is to examine the impact of liquidity and financial leverage on financial performance of listed banks on the Ghana Stock Exchange (GSE) from 2016–2021.

1.2 OBJECTIVE OF THE STUDY

The principal aim of this study is to examine the impact of liquidity and financial leverage on financial performance of listed banks on the Ghana Stock Exchange (GSE) from 2016–2021. Specifically, the research aimed to achieve the following objectives to:

1. Examine the trends of liquidity and financial leverage of listed banks on the GSE.
2. Examine the effect of liquidity on the financial performance of listed banks on the GSE.
3. Examine the impact of financial leverage on the financial performance of listed banks on the GSE.

4. Compare the impact financial leverage and liquidity have on the financial performance of listed banks on the GSE.

1.3 RESEARCH QUESTIONS

KNUST

This study seeks to answer the following questions:

1. What are the trends of liquidity and financial leverage of listed banks on the GSE?
2. What is the impact of liquidity on the financial performance of listed banks on the GSE?
3. What is the impact of financial leverage on the financial performance of listed banks on the GSE?
4. What impact does financial leverage and liquidity have on the financial performance of listed banks on the GSE comparatively?

1.4 SIGNIFICANCE OF THE STUDY

The banking sector has always contributed marginally to the GDP of Ghana. Healthy banking firms in the country would have a positive effect on the country's GDP. Hence, the findings of this study would provide the government, especially Bank of Ghana, with a clear understanding of the performance of its banking firms. Decisions by the government like monetary policies through the Bank of Ghana can have a good basis for its implementation as the liquidity and financial leverage of the companies are being examined.

The findings of this study would provide various managers of banks listed on the GSE with a broader performance measure. Managers would be able to make better decisions as their performance evaluation would take into account the liquidity and financial leverage measured. The findings in this study would provide a deeper performance measure.

Both internal investors (shareholders) and external investors would be interested in the findings of this study. The findings would provide internal investors with another performance measure to assess the value of the investments. Also, an external investor would be given a better picture of the performance of the various banking institutions from the findings of this study. This would help them decide which companies to invest in and which to avoid.

Academicians would also benefit from this study. The study would provide a broader performance measure of liquidity and financial leverage. This study also explains various methodologies to assist various academicians with their advancement in the future.

1.5 SCOPE AND LIMITATION OF THE STUDY

The scope of the study is companies in Ghana, but this study considers only organizations found on the Ghana Stock Exchange (GSE). Even so, it further focused only on banking institutions on the listed GSE. Also, the study took a greater view of companies that had been in operation from 2016–2021. Taking into account that no studies concerning the topic have been done on banking institutions in Ghana, this study specifically considered only listed banks on the GSE that were in operation from 2016 to 2021.

But there were some limitations to the studies. This study is limited to banking firm's, hence it ignored other sectors like construction, mining, and manufacturing firms. Again, there are other banking institutions in Ghana that are not listed on the GSE, thereby limiting our findings to only those listed on the GSE. Also, the period of the study (2016–2021) limited the inclusion of new banking firms (2022) on the GSE. Nevertheless, the results of the study were not affected and are therefore reliable and useful for any decision.

1.6 ORGANIZATION TO THE STUDY

This study is being grouped into five sections for accurate presentation of the work. The first chapter would present the background of the study, the problem statement, the study goals, research questions, the scope of the study, and the study's limitations. Chapter two would discuss the literature on the subject, and it is divided into a conceptual review, a theoretical review, an empirical review, and a conceptual framework.

Chapter three will discuss the method used by the researcher, which includes the study design, population and sample testing design, also the instruments used to collect information and the examination process. The interpretation and presentation of the results of the research are covered in Chapter four. Various data and tables are presented and explained by the use of tables and figures. Finally, Chapter five will deal with the summary, conclusions, recommendations, and suggestions for further studies.

KNUST

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

A summary and evaluation of the writings of renowned academics and scientists on certain subjects or fields of research are provided in the literature review. A literature review should outline the research materials consulted and explain to the reader how that work contributes to a body of information. The Conceptual Review, Theoretical Review, Empirical Review, and Conceptual Framework are all examined in this section of the study. The goals of the study are kept in mind as the literature evaluation is being done.

2.1 CONCEPTUAL REVIEW

The purpose of the conceptual review is to allow for a review of the literature on the study's concepts. Liquidity, financial leverage, firms' performance (return on asset and return on equity) and banking sector are four of the concepts explored in the study. The relevant studies relating to the study's topic will be reviewed in this part. A conceptual examination is necessary because the reader must comprehend the subject under consideration.

2.1.1 Liquidity

Liquidity refers to the speed at which an object can be transacted on the market at a cost that reflects its inherent value (Mbonu & Amahalu, 2021). Cash is viewed among the most tangible funds due to how quickly and easily it can be converted into other assets. Property investment and antiques are just a few illustrations of tangible assets that are all very illiquid, according to (Mbonu & Amahalu, 2021). Different financial assets, such as securities and partnership units, lie at various positions along the liquidity range. According to Kontu, E. and Mihanovi (2019), liquidity refers to how soon a property can be traded

without having an adverse effect on its price. A security can be transferred more periodically (and vice versa) if it is more liquid, and it sells for valuation or sale price is cheaper. This study aligned with the explanation of liquidity by Mbonu and Amahalu (2021), hence used current ratio and quick ratio as a means of measuring liquidity.

Accounting and financial professionals use the current ratio as a measure to gauge the financial situation of a corporation right now (Ogachi et al. 2020). A company must assess its current assets that can be swiftly converted into cash against its payables. This study agreed and adopted the definition by Ogachi et al. (2020). Mathematically presented as:

$$\frac{\textbf{Current Assets}}{\textbf{Current Liabilities}}$$

Al-Shiyab (2021) defined quick ratio as a metric of a company's willingness to meet its short-term commitments by utilizing its one of the most liquid assets and as an indication of a firm's short-term liquidity position. It is also called the acid test ratio because it shows the company's ability to shortly employ its relatively close assets to reduce its current responsibilities. The study aligned with the expression by Al-Shiyab (2021) about quick ratio. Mathematically presented as:

$$\frac{\textbf{Quick Assets}}{\textbf{Current Liabilities}}$$

2.1.2 Financial Leverage

Financial leverage refers to the use of credit to finance a project or venture (Guo et al. 2021). The possible profits as a result of a project, is doubled. Therefore, leverage boost the

possible negative change in the event that the venture fails. A business or investment is said to be highly leveraged if it possesses more capital than equity. Leverage allows investors to considerably raise the profits they may offer on investments, as Guo et al. (2021) proceeded to illustrate. Several tools, like as options and margin accounts, are used to multiply their investments. Entrepreneurs can use leverage to sustain their resources. In other respects, instead of selling shares to raise income, firms might invest in their operations using debt and equity in an effort to boost shareholder value. The ratios of debt to total assets and debt to total equity were adopted to gauge how leveraged each bank was financially.

According to Husna and Satria (2019), debt to total assets ratio identifies the percentage of an industry's assets that are financed by debt. One term for it is the debt ratio. This metric is closely watched by creditors and lenders due to their desire to know if the business has had more debt than assets. Due to the fact that it demonstrates a company's financial stability, the debt-to-total-assets ratio is significant for businesses and creditors (Husna & Satria, 2019). Larger risk is implied by a larger debt ratio since the organization will have trouble paying its creditors. The formular adopted from Husna and Satria (2019) was:

$$\frac{\textbf{Total Debt}}{\textbf{Total Assets}}$$

The debt-to-equity ratio is a crucial financial metric that assesses a company's ability to cater for its debt by measuring its financial leverage (Nukala & Prasada, 2021). It is determined by dividing the total liabilities by the stockholders' equity of the company. It illustrates how much a company can borrow to cover its expenses as comparison to using cash on hand. It functions as a long-term risk analysis of an organizations financial structure and eventually sheds light on its enhancing strategy. Therefore, this study adapted the definition by Nukala and Prasada (2021) about debt-to-equity ratio. It is mathematically expressed as:

Total Debt

Total Equity

2.1.3 Firm Performance

According to Úbeda-García et al. (2021), corporate performance is an indicator of an organization's capacity to utilize to meet its purpose. There are a lot of measures that can assist in assessing a company's performance within a firm. So, financial measures are adapted for measuring the performance of the bank firms in Ghana. Among the financial performance measures are Return on assets (ROA) and Return on equity (ROE) were adapted for the study.

Return on assets (ROA) is a statistic that contrasts the asset worth of a business with the profits it makes over time (Aminah, 2021). Financial analysts use the return on assets method to decide how to allocate their resources. According to Aminah (2021), the amount of money made from selling widgets minus the costs of materials and labour is what determines how efficiently a firm generates income by using its abilities. This difference is known as the company's net profit. According to Dwiarti et al. (2021), the ROA is calculated by dividing the company's net profit by the value of its assets.

ROA = Net Profit / Total Assets

Return on equity, according to Shad et al. (2019), refers to how well a company generates returns on the money it receives from its shareholders. When seen together, ROE and ROA can be used to measure how successfully a company manages its debt. When a firm takes on debt, for example, ROE will nearly always be greater than ROA, but if the gap is significant, it could show that the company is not making appropriate use of its borrowed funds. Return on equity was calculated by Kusi et al. (2017) as

ROE = Net Income or Profits/Total Equity.

2.1.4 Banking in Ghana

According to Pamuji (2022), banks act as financial intermediaries, receiving contributions and distributing those funds into the economy. Acknowledging the goal of offering financial services to British businesses and the colonial administration, the banking industry was established Gold Coast era. The first branch of the Bank of the British West Africa, which eventually changed its name to Standard Chartered Bank in 1985, was established in Accra in 1896. (Osei et al. 2020). Due to the bank's success, other foreign banks started working in the Gold Coast at the time. The Ghana Commercial Bank was founded in 1953 as the first indigenous bank to lessen the dominance of the two foreign banks on the financial sector (Osei et al. 2019).

Numerous domestically established banks began operating as a result of financial sector changes and the adoption of the banking law in 1989 (PNDC Law 225) (Duncan, 2020). And by independence, there was an excessive amount of government control over the financial industry. In 1992, the government started to privatize a few of the state-owned banks, and the financial sector's liberalization resulted in both a rise in the number of domestic banks and the admission of a number of international institutions into the banking business (Obuobi et al. 2019). The Financial Sector Adjustment Programme (FINSAP) and Financial Sector Strategic Plan (FINSSIP) deregulations of the financial sector also increased competition in the banking sector and improved savings, deposit mobilization, and financial depth. However, the disparity among deposit and lending rates was large and lending rates were high.

Additionally, the 2004 enactment of the new Banking Act resulted in changes to the capital requirements and the abolition of secondary reserves (Obuobi et al. 2019). In 2007, the minimum capital was increased to GHS 60 million; in 2013, it was increased to GHS 100 million. The new Act notably instituted the Universal Banking License, which permits banks to provide a range of banking services (Kodiah, 2022). which are foreign-owned and 11 of which are Ghanaian-owned. Six of these banks control upwards of half of the sector's total assets. However, only nine banks that are eligible for this study are listed on the Ghana Stock Exchange (GSE).

2.2 THEORETICAL REVIEW

The theories are designed to explain, forecast, and comprehend events as well as, in some cases, to challenge and advance the current level of knowledge within the parameters of significant boundary expectations. A research study's theory may be supported or upheld using the theoretical framework (Kivunja, 2018). The theoretical framework outlines the justification for why a research issue is being investigated. The assets theory and the agency theory were the two theories covered in this study.

2.2.1 Asset Theory

According to asset management theory, banks must hold liquid assets in order to seek great profits, mitigate risk, and make necessary contingencies (Edem, 2017). According to this view, owning short-term assets is necessary to mitigate the impact of banking operations' uncertainties and diverse liquidity requirements. According to Edem (2017), banks give credit facility to borrowers that are prepared to pay higher interest rates and are improbable to default on their repayments in order to acquire the necessary liquidity without incurring significant expenditures. Banks are mostly funded by collateralized borrowing rather than just assets, which makes it impossible to rely on them in times of financial difficulty (Gertler &

Gilchrist, 2018). This describes loans that give the lender a broad statement on the other assets of the borrowers and a preferential claim on a specific asset. The amount of liquid assets to just be held will vary depending on the bank's perceived demand for liquidity, the stream of deposits, the state of the financial markets, and the path of monetary policy.

Per Bebchuk et al. (2017), the idea of asset management has had some limitations. It focuses on asset part of the balance sheet that makes the theory extremely weak in the dynamic money markets. The economy has an impact on the lender and how swiftly funding is received. Furthermore, it ignores the fact that high profits come with high dangers. According to Kontu and Mihanovi (2019), it might be difficult to achieve high returns while retaining a significant amount of liquid assets at a minimal risk since cash reserves tend to be pricey and volatile to reduce profitability. Additionally, the assets must be appealing and straightforward to promote. It was established that inability to do so will result in bankruptcy or the requirement for an unsecured loan (Kontuš & Mihanović, 2019).

The ease of exchange for the money balance is assured to be the only unique function of assets in the process of purchasing and letting go of economic means (Edem, 2017). Facilitating meetings of financial commitments at maturity is determined by the stock of cash balances. In speaking, the likelihood of realizing assets before age without suffering a severe capital loss increases as assets approach maturity (Painter, 2020). Banks with the ability to fulfil its commitments when due are considered to be more liquid in this sense. Better performance is implied by higher ratios, while threats to the bank are indicated by lower ratios, which tend to impede bank performance (Edem, 2017).

Treasury bills and other capital instruments are at low chance of losing of value as a result of fluctuations in policy on interest rates because they are held for short periods of time (Gagnon et al. 2018).

2.2.2 Agency Theory

The complex interactions that take place amongst proprietors and their agents are described using the agency theory notion (Panda & Leepsa, 2017). A principal is essentially someone who substantially relies on an agent to carry out certain financial decisions and operations with potentially unforeseen outcomes. There may be a number of arguments or disagreements since the principal has such confidence in the representative to make the right choice. The name "agency theory" refers to the study of such linkages, according to Marashdeh et al. (2021). Agency theory is sometimes known as the "agency dilemma" or "agency difficulty."

When it comes to agency theory and business, the agency theory was very necessary to this study, as the theory shown the different goals of the managers and shareholders in an organization. In order to reduce the agency dilemma among shareholders and managers in the banking firms in Ghana, this study seeks to examine key performance indicators for shareholders in order to actually assess the performance of managers.

2.3 EMPIRICAL REVIEW

Empirical review is built more on experiences and observation than on logical reasoning. The form consists of a review of recent evidence relevant to a well-defined research question that gathers, publishes, and analyses data from the studies using which was before and proven identity techniques, relevant research, and critical evaluation included in the review (Booth, 2016).

2.3.1 Trend of Liquidity and Financial Leverage

According to Boadi and Li (2015), the overall debt structure for non-financial enterprises listed on the Ghana Stock Exchange consisted of 55% debt, 45% equity, and 48% short-term debt. Using panel data technique, Boadi and Li (2015) investigated the relationship

amongst leverage and profitability of non-financial enterprises listed on the Ghana stock exchange from 2004 to 2010. The exploratory nature of the investigation involved the use of Generalized Least Square Regression (GLS). Edited, sorted, and entered into Microsoft Excel, the data was then exported into Eviews 7, processed using GLS, and the dependent and independent factors were taken into consideration.

In addition, Boadi and Li (2015) show that ROE was all insignificantly connected to both short-term debt and long-term debt, in contrast to Net Profit Margin (NPM) and ROA, which were substantially and not favorably associated to total debt. For all debt measures, sales growth was strongly and favorably correlated with ROA, ROE, and NPM; however, firm size showed a negligible and adverse correlation with these debt measures. There was a negative correlation between total debt and profitability ratios indicates that debt financing had no impact on the firms' profitability, which is different from what was anticipated.

Then, according to Georgeta and Elena (2016), the current financial crisis has made the topic of liquidity quite interesting. Georgeta and Elena (2016) began with the premise that concerns with liquidity and profitability have a substantial impact on the stability and growth of businesses. The firms involved on the Bucharest Stock Exchange were the subject of the analysis. Data were gathered over a decade, from 2005 to 2014, to examine the changes noted just before recession and its subsequent progression. Georgeta and Elena (2016) examined the correlations among the studied variables while concentrating on testing a specific model. A graphical examination of the trend of the present liquidity and leverage ratios was done in the study's first section. In order to track the effects of tax pressure and changes seen throughout the financial crisis, the effective tax rate was also examined.

The study by Georgeta and Elena (2016) employed multivariate regression models for unbalanced panel data in its econometric analysis. Return on assets and return on equity were

used as accounting tools to assess financial performance. Liquidity and solvency indicators were the main factors considered as potential performance-influencing factors for firms. The findings demonstrated a negative association between liquidity and company financial performance and supported the statistically significant relationship between the examined variables. Findings from Georgeta and Elena (2016) also shown that, there were mostly a reduction in the trend of the current liquidity ratio as recorded in 2007, 2008, 2010, 2011, 2012 and 2014 with a rise only in 2006, 2009 and 2013. The trend of the financial leverage among the firms in Romania shown a balance of rise and fall but rose in most occasions.

According to Haslindar and Teik-Cheng (2019), the trade-off argument is supported by the results that capital tangibility and growth opportunities demonstrating that enterprises prefer to employ long-term debt to finance their fixed assets and growth. According to the pecking order theory, it has been found that profitability and liquidity are significantly inversely correlated with short-term debt ratio and debt ratio. The utilization of internal resources as a concern for financial leverage choices as rather than external sources for longevity and performance sustainability is supported by Haslindar and Teik-Cheng (2019).

Haslindar and Teik-Cheng (2019) looked into the connection across the factors and financial leverage of the Malaysian public firms that were still operating. After screening from the total of 474 companies, 151 enduring publicly traded corporations in the Bursa Malaysia were chosen over the period of 2000 to 2015 (16 years). Before doing panel data analysis, the results of the descriptive statistics were gathered using a fixed effect model. Haslindar and Teik-Cheng (2019) used business size as a control variable and four independent variables, (asset tangibility, growth opportunities, profitability, and liquidity). The trends by Haslindar and Teik-Cheng (2019) shown a rise and fall of the financial leverage among public listed companies in Malaysia in most times falling than rising.

2.3.2 Liquidity and Firms Performance

The liquidity condition of each organization was found to be of importance to stakeholders in a study by (Al Nimer et al., 2015). When selling items on credit, suppliers will assess the company's liquidity. Al Nimer et al. (2015) went on to show that workers should be concerned about the firm's liquidity to determine if the company can meet its responsibilities to pay employees' salaries, pensions, and other benefits. Therefore, a corporation must maintain enough liquidity such that liquidity has a significant impact on profits. Al Nimer et al. (2015) studied the link between quick ratio liquidity and return on asset (ROA) profitability in Jordanian banks. The financial reports from 2005 to 2011 of 15 Jordanian banks registered on the Amman Stock Exchange (ASE) were used in the analysis by Al Nimer et al. (2015). According to Al Nimer et al. (2015), the independent variable quick ratio significantly affects the dependent variable return on asset (ROA).

According to Edem (2017), the viability, expansion, sustainability, and effectiveness of a banking system are significantly influenced by liquidity and bank performance. Planning and implementing liquidity correctly helps prevent mistakes from impacting banking operations and the economy in the long run. Finding empirical proof of the effect of liquidity management on the results of deposit money institutions was the main goal of this study by Edem (2017). Between 1986 and 2011, the Nigerian deposit money banking industry, which consists of twenty-four (24) institutions, was surveyed. SPSS was used to gather and analyze secondary data. Descriptive, correlational, and inferential statistics were utilized by Edem (2017). The return on equity of a bank serves as a measure of its profitability.

Edem (2017) develops three hypotheses, which are then statistically tested using multiple linear regression analysis at a five percent level of significance. The results of the empirical investigation demonstrate a significant correlation between deposit money banks'

effectiveness in Nigeria and their liquidity management. The correlation results suggest a positive relationship across return on equity and the liquidity management metrics of liquidity and cash reserve ratios, however a negative relationship exists between these metrics and the loan to deposit ratio. The primary findings, however, show that only banks with the best liquidity were capable of increasing earnings. Edem (2017) came to the conclusion that there are issues with excess and illiquidity in bank operational processes, and he advises banks to adopt the best liquidity model possible for effectiveness and efficacy. Therefore, the hypothesis that was tested was:

H1: Liquidity has an impact on firm performance

2.3.3 Financial Leverage and Firms Performance

Rahman et al. (2020) investigated the effect of financial leverage on business profitability in Bangladesh's listed textile industry. The study was conducted using a sample of twenty-two (22) textile companies that are on the Designated Stock Exchange (DSE). Rahman et al. (2020) state that Return on Equity (ROE) is used to gauge a company's profitability. Rahman et al. (2020) discovers a substantial inverse association between leverage and business profitability. This finding suggests that the capital structure of the company has a detrimental consequence on its profitability. Additionally, Rahman et al. (2020) draws the conclusion that the majority of textile companies rely on external debt as a source of funding. Rahman et al. (2020) then expressed that businesses should place more emphasis on raising money internally to meet their finance demands.

According to Farhan et al. (2018), the factors affecting a firm's profitability are capital structure and sales growth. According to Farhan et al. (2018), the business world's ongoing activities and long-term expansions are a persistent source of concern. Considering the dynamics of the sector and the national economy, Farhan et al. (2018) sought to examine the

ideal level of capital structure that businesses might adopt to enhance their business results. The effect of financial leverage on the performance of the corporations has been examined using annual data for the Karachi Stock Exchange (KSE) 100 index securities for the years 2005 through 2014 using Hausman's specification test. For the KSE 100 index listed enterprises, ROA, ROE, and TOBIN's Q are used as stand-ins for financial performance when compared to financial leverage.

In a study published in 2016, Adenugba et al. sought to understand the relation across financial leverage and business value as well as how it affected firm value. Five (5) organizations that were on the Nigerian Stock Exchange (NSE) for a total of six (6) years, from 2007 to 2012, comprised the sample. Data came from selected companies' annual reports. Financial leverage and institutional ownership have a considerable link, according to Adenugba et al. (2016), and financial leverage has a major impact on firm value. Therefore, in order to maximize a company's worth, the study by Adenugba et al. (2016) advises that financial leverage be optimized by the company.

In their research, Ahmad et al. (2015) sought to maintained a probabilistic connection between financial leverage and the profitability of Pakistan's cement industry. In order to achieve this, twenty-one (21) cement producers were included in the study, and six years' worth of data, from 2005 to 2010, involving the financial leverage and profitability of the aforementioned enterprises, were considered. 108 observations make up the sample size for the six (6) year period spanning 18 firms. In order to find a causal connection between the variables. Hence this study seeks to test the hypothesis:

H2: Financial Leverage has an impact on firm performance

2.3.4 Financial Leverage, Liquidity and Firms Performance

According to Hongli et al. (2019), in a survey showed that liquidity, or LIQ, has a significantly positive impact on return on equity (ROE), which is utilized as a performance indicator. Additionally, Hongli et al (2019) research reveals that financial leverage has a significant beneficial impact on a firm's performance (ROA & ROE), with 65% of debt utilized to finance a firm's assets, which had a substantial effect on business performance. ROA and ROE are chosen by Hongli et al. (2019) as proxies for enterprise performance. Using both fixed and random impact models for modeling, Hongli et al. (2019) selected the more suitable model. In order to prevent insolvency soon, the study advises management to utilize less debt financing but more of their earnings for their operations.

In a study published by Kajola et al. (2019) used data from seventeen consumer goods companies on the Nigerian Stock Exchange between the financial years of 2012 and 2017. Multiple regression was used by Kajola et al. (2019), who used pooled Ordinary Least Squares as their estimate method. According to Kajola et al. (2019), financial performance is significantly impacted by the value of the coefficient and the degree of combined leverage, which are used as leverage proxies. Yet, the study was unable to offer empirical proof that the current ratio and quick asset ratio, which serve as proxies for liquidity, have a substantial impact on the performance of the firms.

2.4 CONCEPTUAL FRAMEWORK

A conceptual framework is a researcher's collection of books on how to characterize a phenomenon. It depicts the behavior required throughout the investigation, based on prior knowledge of the opinions and observations of other academics on the study issue. The study's conceptual framework is depicted in Figure 2.1 below:

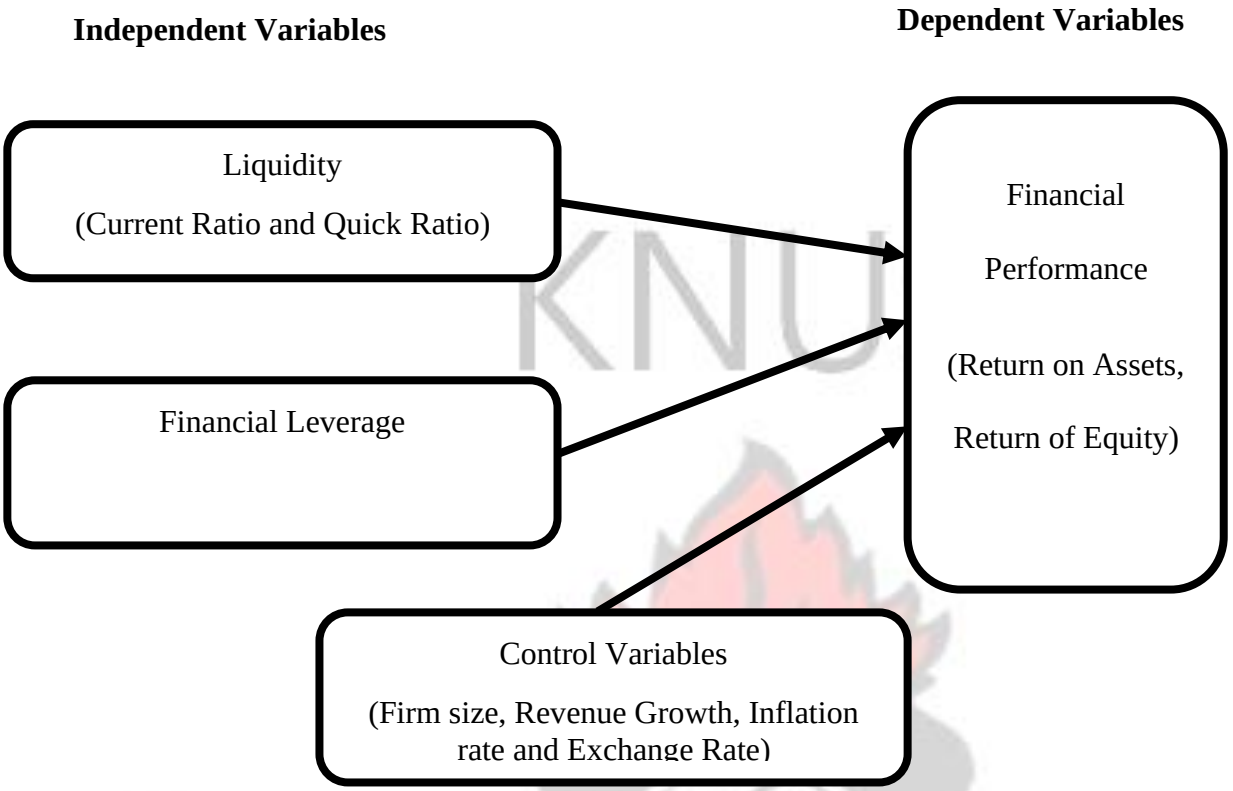


Figure 2.1: Conceptual Framework

Source: Author's Construction (2023)

The conceptual framework, depicts the relationships between the studies' independent, control, and dependent variables. From figure 2.1, financial performance (ROA and ROE) were the dependent variables in this study. The control variables were firm size, revenue growth, inflation rate, and exchange rate. Liquidity (current ratio and quick ratio) and financial leverage were employed as the independent variable. As indicated by the boldface arrows in Figure 2.1. As a result, the goal of this study is to explore the effect of liquidity and financial leverage on financial performance of banks on the Ghana Stock Exchange (GSE) from 2016–2021.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 INTRODUCTION

A thorough, systematic study of the approaches applicable to a research topic is referred to as methodology. It comprises a theoretical examination of a collection of procedures and principles associated with a particular knowledge branch. The research theory, research equation, organizational description, estimation, data processing, data interpretation, and the topic overview will all be addressed under this heading.

3.1 STUDY DESIGN

According to Goundar (2012), explanatory research design helps researchers understand a particular problem in depth by providing more information about a specific topic. By conducting explanatory research, individuals can predict the cause, or make a hypothesis, behind a phenomenon and predict future occurrences hence this study adopted the explanatory research design. This study also employed a desk study methodology because the majority of the data came from the Bank of Ghana and the Ghana Stock Exchange, both of which were easily accessible online. Hongli et al. (2019) work served as the foundation for the Desk study. A quantitative research method was used in this study as adopted by Almagtome et al. (2020) as the data was numerically analysed.

3.2 SAMPLE SIZE AND SAMPLING TECHNIQUE

The study applied a census sampling technique since the banking firms on the Ghana Stock Exchange were only nine. This translates into making the whole sample size nine firms. Namely, Access bank, ADB, Cal bank, Ecobank, GCB bank, Republic bank, Societe

Generale bank, Standard Chartered bank and Trust bank. All the financial statements of the nine banking firms from 2016 to 2021 were analysed in this paper.

3.3 DATA COLLECTION

In the study, secondary data were employed. Information from primary sources, such as internet searches and archives, can be found in secondary data sources from the Ghana Stock Exchange and Bank of Ghana, financial statements from 2016 to 2021 were gathered for this study. The financial statements were downloaded from the Ghana Stock Exchange website, while the Bank of Ghana's website provided the exchange rates and inflation data.

3.4 DATA ANALYSIS

Descriptive analytics was used to analyse and synthesize historical data from banking firms to analyse the mean, standard deviation, maximum, minimum, and spot trends among the variables. Microsoft excel was a critical component of early data investigations because it allowed for the detection of trends, as well as the testing and inference of hypotheses using condensed statistics and graphical representation environments.

SPSS software version 26 was used to analyse the collected data. Regression analysis is being used in this research to determine the link between the variables being investigated. Specifically, this study adapted multiple linear regression analysis as this study uses two dependent variables (ROA and ROE).

3.5.1 MODEL SPECIFICATIONS

The study adopted the multiple linear regression model to institute the connection amid the variables of banking firms in Ghana as recommended by Ahmad et al. (2015). Linear regression has two primary purposes, which is understanding the relationships between

variables and forecasting. The coefficients represent the estimated magnitude and direction (positive/negative) of the relationship between each independent variable and the dependent variable (Senthilnathan, 2019). The model specification is presented as:

$$ROA = \beta 0 + \beta 1CR + \beta 2QR + \beta 3TDTA + \beta 4\,TDTE + \beta 5\,FS + \beta 6\,RG + \beta 7\,ER + \beta 8\,IR + \varepsilon \ldots Model\ 1$$

$$ROE = \beta 0 + \beta 1CR + \beta 2QR + \beta 3TDTA + \beta 4\,TDTE + \beta 5\,FS + \beta 6\,RG + \beta 7\,ER + \beta 8\,IR + \varepsilon \ldots Model\ 2$$

Where: $ROA = Return\ on\ Assets$

$ROE = Return\ on\ Equity$

$CR = Current\ Ratio$

$QR = Quick\ Ratio$

$TDTA = Total\ Debt\ to\ Total\ Asset$

$TDTE = Total\ Debt\ to\ Total\ Equity$

$RG = Revenue\ Growth$

$FS = Firm\ Size$

$ER = Exchange\ Rate$

$IR = Inflation\ rate$

$\beta = coefficient\ of\ independence\ variables$

$\boldsymbol{\varepsilon} = Error\ term\ within\ a\ confidence\ interval\ of\ 5\%$

3.5.2 JUSTIFICATION OF VARIABLES

This study used return on asset and return on equity as adopted by Hongli et al. (2019) as the dependent variable. Then current ratio, quick ratio, debt to asset ratio and debt to equity ratio served as the independent variable. Firm size, revenue growth, exchange rates and inflation rates were then used as control Variables.

Table 3.1 Justification of variables

VARIABLES	SOURCE	JUSTIFICATION
Return on Asset (ROA)	Ghana Stock Exchange	As a dependent variable
Return on Equity (ROE)	Ghana Stock Exchange	As a dependent variable
Current Ratio (CR)	Ghana Stock Exchange	As a liquidity measure
Quick Ratio (QR)	Ghana Stock Exchange	As a liquidity measure
Total Debt to Asset Ratio (TDTA)	Ghana Stock Exchange	As a financial leverage measure
Total Debt to Equity Ratio (TDTE)	Ghana Stock Exchange	As a financial leverage measure
Firm Size	Ghana Stock Exchange	As an Internal control measure
Revenue Growth	Ghana Stock Exchange	As an Internal control measure
Exchange Rate	Bank of Ghana	As an External control measure
Inflation Rate	Bank of Ghana	As an External control measure

Source: Author's Construction (2023)

3.6 VALIDITY AND RELIABILITY

To produce valuable results, research tools must be legitimate and reliable (Kepha, 2016). When research tools measure what they're supposed to measure, they're said to be valid.

Internal consistency of the study equipment also contributes to reliability. In this project, the content validity of the study instrument will be tested using an expert opinion. The unknown effect of modifying one variable over another is estimated using multiple linear regression (Stock and Watson, 2006). As part of the validity and reliability assessments, the study also performed the following diagnostic tests: Multicollinearity Heteroscedasticity test, normality test.

KNUST

CHAPTER FOUR

DATA ANALYSES AND DISCUSSIONS

4.0 INTRODUCTION

This chapter presents data analysis and discussions about examining the effect of liquidity and financial leverage on financial performance of listed banks on the Ghana Stock Exchange (GSE) from 2016–2021. The following analysis have been presented; trend analysis, correlation matrix, and regression as well as some selected validity and reliability tests (post estimation analysis).

4.1 TEST OF HETEROSCEDASTICITY

Heteroscedasticity is used to produce a distinctive fan or cone shape in residual plots. Cleasby & Nakagawa (2011), used fitted value plots to analyse the residuals while testing for heteroscedasticity. The variance of the residuals increases as the fitted values grow, which is a sign of heteroscedasticity. The study employs the Heteroscedasticity Chart Scatterplot Test from SPSS and the result is presented in figures 4.1.

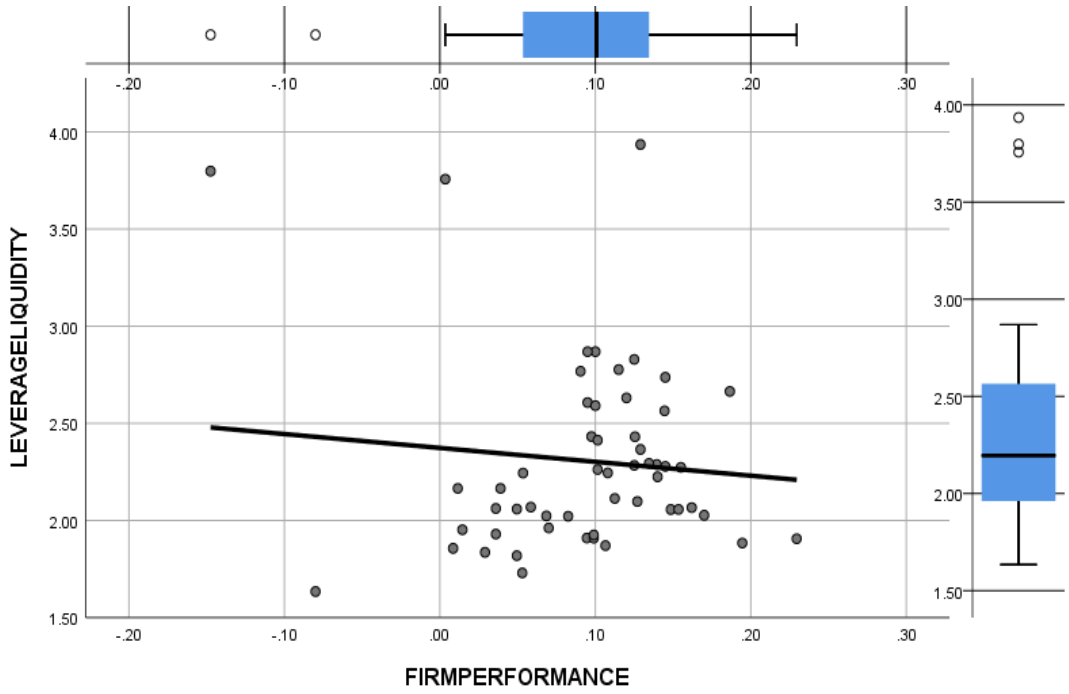


Figure 4.1 Heteroscedasticity

Source: Author's Construction (2023)

Figure 4.1 is the heteroscedasticity test for the model, where firm performance is used as the dependent variable. According to Cleasby and Nakagawa (2011), a heteroscedasticity issue can be inferred if there is a certain pattern in the SPSS Scatterplot Graph, such as dots that create a regular pattern. In contrast, the absence of a distinct spreading-dots pattern suggests that there is no heteroscedasticity issue. There is no discernible spreading-dot pattern, as seen in figure 4.1. As a result, it suggests that there is no heteroscedasticity issue.

4.2 DESCRIPTIVE STATISTICS

The descriptive statistics for the variables utilized in the investigation are presented in Table 4.1. Return on Asset (ROA), Return on Equity (ROE), Debt to Asset (DA), Debt to Equity (DE), Current Ratio (CR) and Quick Ratio (QR) are some of the elements to consider.

From Table 4.1, Return on Asset recorded a mean score of 0.02404 and std. deviation of 0.016916 with a respective maximum value of 0.072 and a minimum value of -0.021.

Considering these results, it can be stated clearly that the return to asset from 2016 to 2021 grew by approximately 0.02%.

Table 4.1: Summary of Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	54	-.021	.072	.02404	.016916
ROE	54	-.274	.387	.16409	.113704
DA	54	.287	.958	.82737	.098311
DE	54	3.675	13.220	6.23857	2.022965
CR	54	.713	1.486	1.09550	.104649
QR	54	.703	1.486	1.06389	.139458
FM	54	5.677	9.735	6.98870	.994379
RG	54	-.107	.316	.11391	.096604
IR	54	7.14	17.46	11.1117	3.24661
ER	54	3.9	5.9	4.933	.7034
Valid N (listwise)	54				

Source: Author Construction (2023)

Again, Return on Equity recorded a mean score of 0.16409 and std. deviation of 0.113704 with a corresponding maximum value of 0.387 and a minimum value of -0.274. This result indicates that the Return on equity was increased by approximately 0.16% within the six years. Also, debt to asset showed a mean score of 0.82737 and a std. deviation of 0.098311 while recording a maximum value of 0.958 and a minimum of 0.287. It shows that the debt to asset ratio for those six years interval was approximately 0.83%.

Furthermore, debt to equity ratio recorded a mean score of 6.23857 and std. deviation of 2.022965 with a corresponding maximum value of 13.220 and a minimum value of 3.675. This result suggests that debt to equity ratio within the six years from 2016 to 2021 was 2.02%. Moreover, current ratio for the banking firms recorded a mean score of 1.09550 and std. deviation of .104649 with a corresponding maximum value of 1.486 and a minimum value of 0.713. That indicated an increase of 1.1% of current ratio for the six years of study. It was also revealed that in the case of quick ratio, the minimum value of -0.703 and maximum value of 1.486, with a mean of 1.06389 and standard deviation of 0.139458.

4.3 TREND ANALYSIS OF LIQUIDITY AND FINANCIAL LEVERAGE

The first objective of the study was to examine the trends of financial leverage and liquidity on banking firms in Ghana from 2016 to 2021. Financial leverage and liquidity were categorized into four variables, namely Debt to asset (DA), Debt to Equity (DE), Current Ratio (CR) and Quick Ratio (QR) were discussed in this section.

4.3.1 Trend Analysis of Average Debt to Assets (DA)

Figure 4.2 presents a trend of the average Debt to Assets for banking firms in Ghana from 2016 to 2021. As presented in the figure 4.2, Debt to Assets has been fluctuating from 2016 to 2021. The highest steep in fall was in 2020, from 0.8362 in 2019 to 0.7737 in 2020. Then experienced the highest rise from 0.7737 to 0.8594 in 2021.

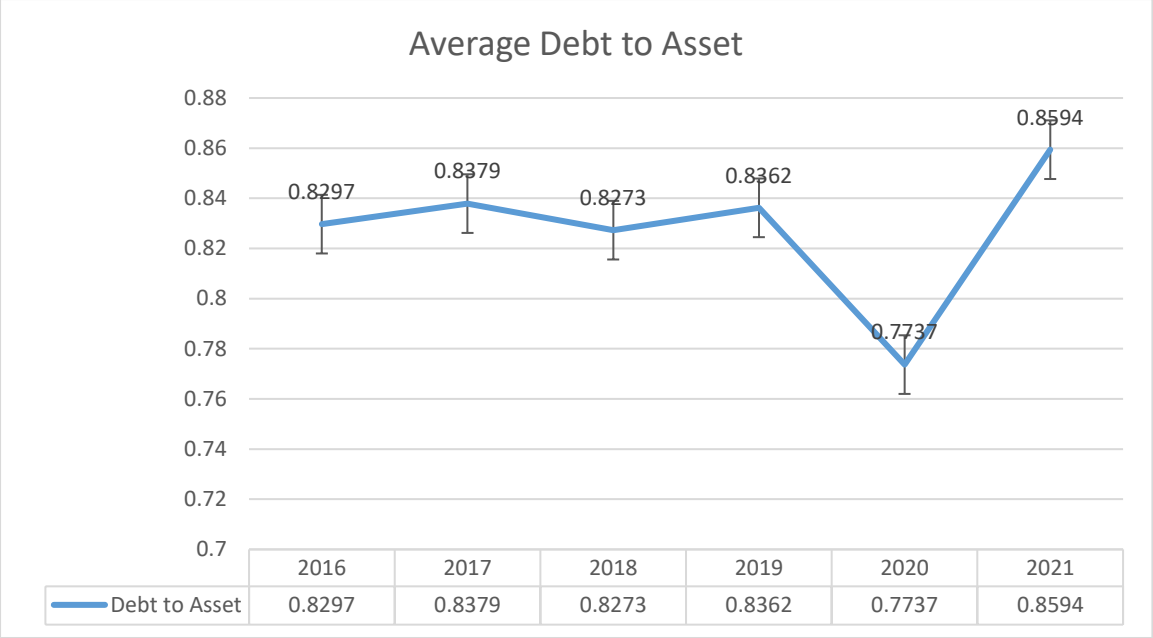


Figure 4.2: Trend Analysis of DA

Source: Ghana Stock Exchange (GSE)

Debt to Assets rose by approximately 0.98% in 2017, then fell by 1.28% in 2018. Again, debt to asset rose by 1.06% in 2019, and fell greatly in 2020 by 8.08%. Also, there was a great rise in the average debt to asset by 9.97%. Debt management has been a very sensitive area among the banking firms. The firms seek to use debt to finance their operation but they also do not want to rely more on debt. Hence, fluctuating figures in the debt to assets ratio. The massive fall in the Debt to Asset ratio in 2020 were as a result of the global hardship in operation during the COVID-19 season which resulted most firms managing their financed through debt and other credit avenues.

The fluctuations in the Debt to Asset ratio of Access Bank, Agricultural Development Bank, Cal Bank, Eco Bank and GCB with the driving force of the fluctuating average debt to asset ratio from 2017 to 2019. In 2020, the debt to asset ratio of The Trust Bank, Standard Chartered Bank and Agricultural Development Bank were significant enough to cause the

average DA to fall greatly. Then a rise in the DA of Access Bank, Agricultural Development Bank and Republic Bank caused the average DA to rise very high in 2021.

4.3.2 Trend Analysis of Average Debt to Equity (DE)

Figure 4.3 presents a trend of the average Debt to Equity for banking firms in Ghana from 2016 to 2021. As presented in the figure 4.3, Debt to Equity has been fluctuating from 2016 to 2021. The highest steep in fall was in 2020, from 6.7234 in 2019 to 5.6933 in 2020. Then experienced a rise from 5.6933 to 5.7707 in 2021.

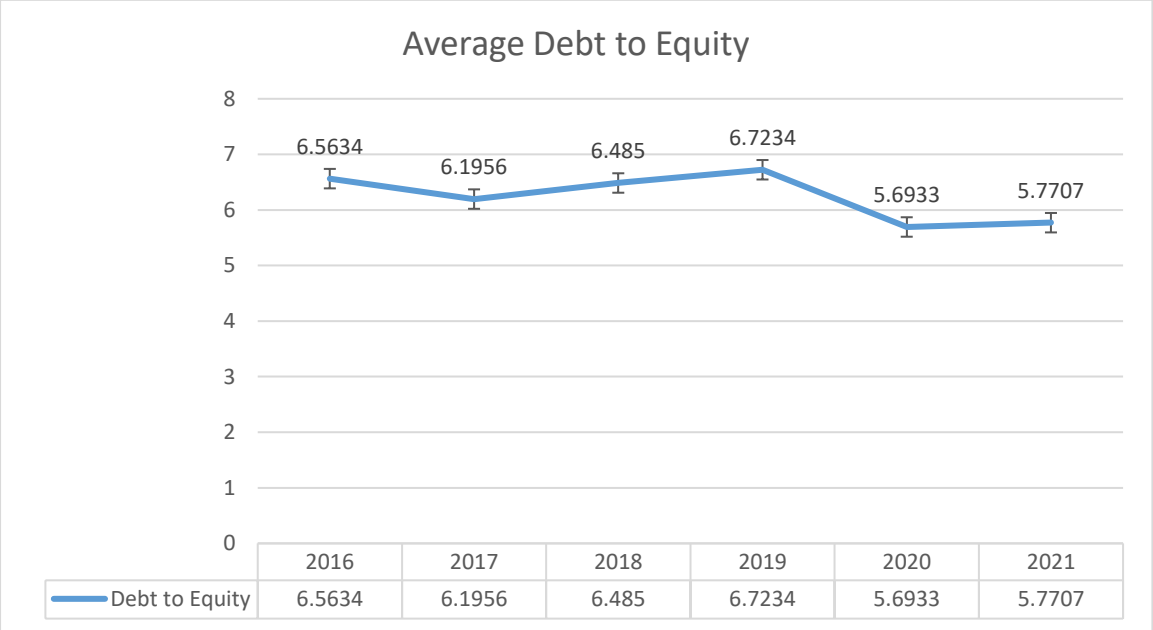


Figure 4.3: Trend Analysis of DE

Source: Ghana Stock Exchange (GSE).

Debt to Equity fell by approximately 5.94% in 2017, then rose by 4.46% in 2018. Again, debt to asset rose by 3.56% in 2019, and fell greatly in 2020 by 18.09%. Then, there was a rise on the average debt to equity by 1.34%. Debt management has been a very sensitive area among the banking firms. The firms seek to use debt to finance their operation but they also do not want to rely more on debt. Hence, fluctuating figures in the debt-to-equity ratio. The massive

fall in the Debt-to-Equity ratio in 2020 were as a result of the global hardship in operation during the COVID-19 season which resulted in most firms requiring investment in equity.

The fluctuations in the debt-to-equity ratio of Cal Bank and The Trust Bank with the driving force of the fluctuating average debt to equity ratio from 2017 to 2019. In 2020, the debt-to-equity ratio of all the banks, except Access Bank, Agricultural Development Bank and GCB Bank, fell making it significant enough to cause the average DE to fall greatly. Then a rise in the DE of most of the banks caused the average DE to rise again in 2021.

4.3.3 Trend Analysis of Average Current Ratio (CR)

Figure 4.4 presents the trend of the average current ratio (CR) for banking firms in Ghana from 2016 to 2021. As presented in the figure below, current ratio has been experiencing a gradual increase and decrease from 2016 to 2018. Then started to rise from 2018 to 2021.

The average current ratio of the banking firms decreased by 5.61% in 2017, continued falling in 2018 by 0.33%. Then started to rise by 2.88% in 2019 and continued rising by 0.97% in 2020 and a 1.22% rise in 2021. The average fall in the current ratio from 2016 to 2018 was as a result of an average fall in current assets of the banking firms on the GSE.

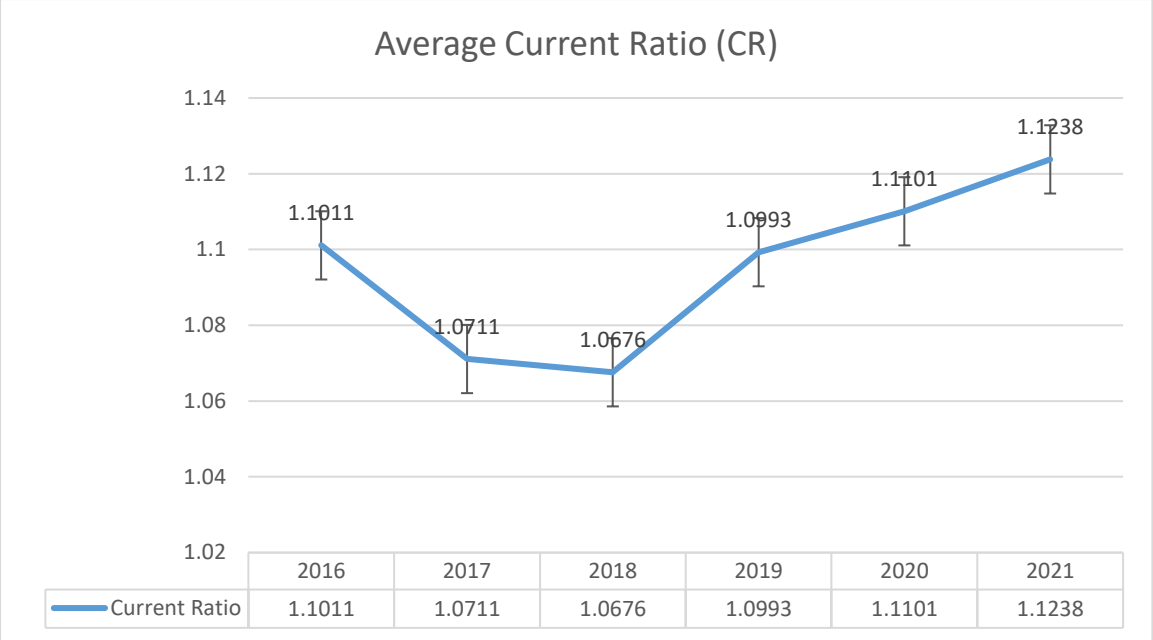


Figure 4.4: Trend Analysis of CR

Source: Ghana Stock Exchange (GSE).

Most firms and entrepreneurs suffered financial problems from 2019 to 2021 as a result of the economic breakdown effect of the COVID 19 pandemic. This led to most business owners resulting to the various banks for financial supports thereby increasing the receivables of the banks for those periods. It resulted in increasing current assets and eventual causing the current ratio to rise for those periods.

4.3.4 Trend Analysis of Average Quick Ratio (QR)

Figure 4.5 presents the trend of the average quick ratio for banking firms in Ghana from 2016 to 2021. As presented the figure 4.5, quick ratio has been experiencing some gradual fall from 2016 to 2020. But then rose from 2020 to 2021.

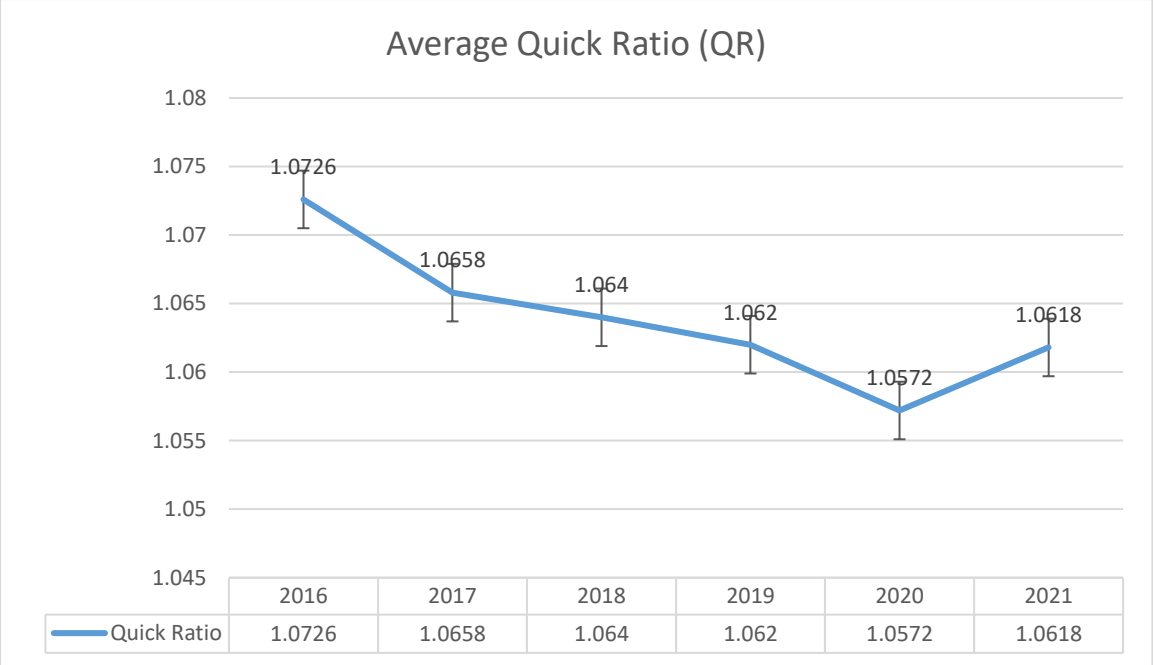


Figure 4.5: Trend Analysis of QR

Source: Ghana Stock Exchange (GSE)

The average quick ratio of the banking firms started falling by 0.64% in 2017, 0.19% in 2018, 0.21% in 2019 and a deep fall of 0.51%. Then a very substantial rise in 2021 by 0.43%.

4.4 LIQUIDITY AND FIRMS PERFORMANCE

In order to fulfil the second objective of the study which is to examine the effect of liquidity on the financial performance of listed banks on the GSE, the study begins to analyse their various correlations.

4.4.1 Correlation Matrix

Table 4.2 shows the correlation matrix. When checking the correlation, the correlation value of each variable should not be below 0, however, the closer it is to 1.00, the more perfect it is correlated. But if the value exceeds 0.8, it indicates that there is a multicollinearity problem. This multicollinearity problem was only shown among some of the dependent variables with

ROA and ROE recording a pearson correlation of 0.898. The correlation table shows, Pearsons's correlation values from 0 to 0.5 signifies weak positive correlation and from 0.5 to 1 shows a strong positive correlation among variables. Again, values from 0 to -0.5 shows a weak negative correlation whiles values from -0.5 to -1 shows a strong negative correlation.

Return on asset (ROA) recorded a positive pearson correlation of 0.353 with current ratio and 0.201 with quick ratio. This indicates that there is a positively weak correlation between quick ratio, current ratio and return on asset. Also, return on equity (ROE) recorded a pearson correlation value of 0.165 with current ratio and 0.048 with quick ratio. That also shown a positively weak correlation between current ratio and quick ratio as their values were below 0.50.

KNUST

KNUST

Table 4.2: Correlation Matrix

Correlations										
		ROA	**ROE**	**DA**	**DE**	**CR**	**QR**	**FM**	**RG**	**IR**	**ER**
ROA	Pearson Correlation	1	.898**	.198	-.259	.353**	.201	.377**	.337*	-.156	.267
	Sig. (2-tailed)		.000	.151	.059	.009	.144	.005	.013	.259	.051
	N	54	54	54	54	54	54	54	54	54	54
ROE	Pearson Correlation		1	.245	-.095	.165	.048	.230	.288*	-.208	.239
	Sig. (2-tailed)			.074	.494	.233	.733	.095	.035	.132	.082
	N		54	54	54	54	54	54	54	54	54
DA	Pearson Correlation			1	.450**	-.171	-.155	-.033	-.055	.012	-.026
	Sig. (2-tailed)				.001	.217	.262	.814	.693	.934	.854
	N			54	54	54	54	54	54	54	54
DE	Pearson Correlation				1	-.636**	-.455**	-.366**	-.296*	.025	-.129
	Sig. (2-tailed)					.000	.001	.006	.030	.857	.352
	N				54	54	54	54	54	54	54
CR	Pearson Correlation					1	.763**	.415**	.288*	-.012	.126
	Sig. (2-tailed)						.000	.002	.034	.929	.364
	N					54	54	54	54	54	54
QR	Pearson Correlation						1	.293*	.253	.028	-.029
	Sig. (2-tailed)							.032	.065	.839	.833

W J SANE NO

KNUST

	N	54	54	54	54	54
FM	Pearson Correlation		1	.406**	-.126	.175
	Sig. (2-tailed)			.002	.365	.207
	N		54	54	54	54
RG	Pearson Correlation			1	-.338*	.325*
	Sig. (2-tailed)				.012	.016
	N			54	54	54
IR	Pearson Correlation				1	-.728**
	Sig. (2-tailed)					.000
	N				54	54
ER	Pearson Correlation					1
	Sig. (2-tailed)					
	N					54

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

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Author's construction base on Ghana Stock Exchange (GSE) figures

NYANSAPO WO SANE NO BADWENMA

The threshold for significance by the correlation matrix in table 4.2 is 0.05. Therefore, any value greater than the 0.05 threshold is not significant but values lesser than the threshold indicate significance among those variables. Current ratio had a significant effect on return on asset as current ratio recorded a significant value of 0.009. But quick ratio has a significant value of 0.144 with return on asset which indicates that quick ratio has no significant effect on return on asset. Current ratio and quick ratio recorded a significant value of 0.233 and 0.733 respectively with return on equity. All that clearly show is that, debt to equity ratio, current ratio and quick ratio had no significant effect on return on equity.

4.4.2 Linear Regression

Linear regression analysis may be used to discover the relationship between the dependent, independent and control variables. The goal of this investigation is to model the link between the explanatory and secondary data that were collected. The first model is to investigate the link between the independent variable and the dependent variable (ROA). The second variable investigates the link between the independent variable and the dependent variable (ROE).

Table 4.3: Model Summary (ROA)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.570[a]	.325	.205	.015086

a. Predictors: (Constant), ER, DA, QR, FM, RG, DE, IR, CR

Source: Author's Estimation (2023)

Table 4.3 Model 1 R square was the researcher's first piece of information that he saw. R square was found to have a value of 0.570 or 57.0 per cent. This indicates that the independent and control variables explain 57.0 per cent of the total variation. Errors account

for the remaining 0.015086. This shows that the independent variables do explain the dependent variable very well.

Table 4.4: ANOVA (ROA)

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.005	8	.001	2.705	.016[b]
	Residual	.010	45	.000		
	Total	.015	53			

a. Dependent Variable: ROA

b. Predictors: (Constant), ER, DA, QR, FM, RG, DE, IR, CR

Source: Author's Estimation (2023)

The dependent variable is influenced by the independent variable and control variable, as shown in Table 4.4. It is significant if the independent variable and control variables affects the dependent variable and vice versa. The researcher's attention is drawn to the value in the "Sig" column in this ANOVA table.

This is since it displays the ANOVA's precise significance level. To be considered significant, the value in the "Sig" column must be less than the P-value (0.050). Model 1 indicates a value of 0.016, which is lower than 0.05, shows that the independent variables and control variables are significant to return on asset.

Table 4.5: Coefficients (ROA)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.091	.046		-1.965	.056
	DA	.054	.024	.316	2.242	.030
	DE	-.001	.002	-.162	-.885	.381
	CR	.038	.037	.233	1.006	.320
	QR	-.010	.024	-.085	-.433	.667
	FM	.003	.002	.170	1.181	.244
	RG	.026	.026	.150	1.030	.308
	IR	.000	.001	.055	.299	.766
	ER	.004	.004	.184	.981	.332

a. Dependent Variable: ROA

Source: Authors Estimation (2023)

The significant value is defined as a P-value of less than 0.05 in the coefficient table. Current ratio has “Sig” of 0.320 and quick ratio has “Sig” of 0.667. That shown that current ratio and quick ratio do not have any significant effect on the return of assets of banks listed on the Ghana Stock Exchange GSE.

Table 4.6: Model Summary (ROE)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.460[a]	.211	.071	.109586

a. Predictors: (Constant), ER, DA, QR, FM, RG, DE, IR, CR

Source: Author's Estimation (2023)

Table 4.6 Model 2 R square was the researcher's first piece of information that he saw. R square was found to have a value of 0.460 or 46.0 per cent. This indicates that the

independent and control variables explain 46.0 per cent of the total variation. Errors account for the remaining 0.109586. This shows that the independent variables do explain the dependent variable well.

Table 4.7: ANOVA (ROE)

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
2	Regression	.145	8	.018	1.507	.182[b]
	Residual	.540	45	.012		
	Total	.685	53			

a. Dependent Variable: ROE

b. Predictors: (Constant), ER, DA, QR, FM, RG, DE, IR, CR

Source: Author's Estimation (2023)

The dependent variable is influenced by the independent variable and control variable, as shown in Table 4.6. It is significant if the independent variable and control variables affects the dependent variable and vice versa. The researcher's attention is drawn to the value in the "Sig" column in this ANOVA table. This is since it displays the ANOVA's precise significance level. Model 2 indicates a value of 0.182.

Table 4.8: Coefficients (ROE)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
2	(Constant)	-.306	.336		-.911	.367
	DA	.360	.176	.311	2.044	.047
	DE	-.005	.011	-.098	-.493	.625
	CR	.181	.272	.166	.664	.510

QR	-.114	.174	-.140	-.657	.515
FM	.009	.018	.080	.510	.613
RG	.212	.185	.180	1.142	.259
IR	-.002	.007	-.069	-.343	.733
ER	.014	.033	.087	.430	.669

a. Dependent Variable: ROE

Source: Authors Estimation (2023)

The significant value is defined as a P-value of less than 0.05 in the coefficient table. Current ratio has "Sig" of 0.510 and quick ratio has "Sig" of 0.515. That shown that current ratio and quick ratio do not have any significant effect on return of equity of banks listed on the Ghana Stock Exchange GSE.

4.5 FINANCIAL LEVERAGE AND FIR004DS PERFORMANCE

Table 4.2 which is the correlation matrix shown that return on asset (ROA) recorded a positive pearson correlation value of 0.198 with debt to asset ratio but a negative value of -0.259 with debt-to-equity ratio. This indicates that there is a positively weak correlation between debt to asset ratio and return on asset but a weak negative correlation between debt-to-equity ratio and return on asset. Also, return on equity (ROE) recorded a pearson correlation value of 0.245 with debt to asset ratio and a negative correlation value of -0.095 with debt to equity. That also shown a positively weak correlation between debt to asset and return on equity and a negatively weak correlation between return on equity and debt to equity ratio as shown in table 4.2.

Debt to asset has a significant value of 0.151 with return on asset which indicates that debt to asset has no significant effect on return on asset. Return to asset then had a significant value of 0.059 with debt to equity indicating there is no significant effect of return to asset on debt-to-equity ratio since the significant value is higher than the threshold of 0.05. The correlation

matrix also shown that debt to asset had a significant value of 0.074 with return on equity meaning debt to asset has no significant impact on return on equity of the banks listed on the Ghana Stock Exchange (GSE). Again, debt to equity ratio shown a significant value of 0.494 with return on equity from table 4.2.

The linear regression coefficient table 4.5 indicated debt to equity ratio has "Sig" of 0.381. That shown that debt to equity did not have any significant effect on the return of assets of banks listed on the Ghana Stock Exchange GSE. But, debt to asset ratio recorded a significant value of 0.030 which is lower than the threshold. This mean that debt to asset ratio have a significant effect on the return of asset of banks on the GSE. Also, table 4.8 shown debt to equity ratio has "Sig" of 0.625. That shown that debt to equity did not have any significant effect on return of equity of banks listed on the Ghana Stock Exchange GSE. But, debt to asset ratio recorded a significant value of 0.047 which is lower than the threshold. This mean that debt to asset ratio have a significant effect on the return on equity of banks on the GSE.

4.6 FINANCIAL LEVERAGE, LIQUIDITY AND FIRMS PERFORMANCE

From table 4.2, debt to equity recorded a pearson correlation value of -0.636 and -0.455 with current ratio and quick ratio respectively. These values show debt to equity have a negative correlation with current ratio and quick ratio. However, since their pearson correlation value for quick ratio is less than -0.5, its negative correlation is weak. But the value for current ratio is higher than -0.5 which shows that debt to equity ratio have a strong negative correlation with current ratio. And there is a strong positive correlation between current ratio and quick ratio as they recorded a pearson correlation value of 0.763.

Model 1 (table 4.5) shows Firm size has "Sig" of 0.244, Revenue Growth has "Sig" of 0.308, Exchange rate has "Sig" of 0.332 and Inflation rate has "Sig" of 0.766. Since firm size,

revenue growth, exchange rate and inflation rate have a P-value greater than 0.05, its shows that all the control variables are not significant to return on asset. Model 2 (table 4.8) shows Firm size has “Sig” of 0.613, Revenue Growth has “Sig” of 0.259, Exchange rate has “Sig” of 0.669 and Inflation rate has “Sig” of 0.733. Since firm size, revenue growth, exchange rate and inflation rate have a P-value greater than 0.05, its shows that all the control variables are not significant to return on equity.

4.7 DISCUSSION OF RESULTS

The first objective of the study was to examine the trends of financial leverage and liquidity on banking firms in Ghana from 2016 to 2021. According to Georgeta and Elena (2016), the trend of liquidity of Bucharest Stock Exchange rose and fell relatively as the years goes by from 2005 to 2014 among various firms. This findings by Georgeta and Elena (2016) agrees with the findings of this studies as the liquidity ratios (current ratio and quick ratio) of the banks in Ghana also rose and fell relatively from 2016 to 2021.

Considering the secondary objective of this research, which seems to establish the effect of liquidity on the financial performance of listed banks on the GSE, this study shows that current ratio and quick ratio, representing liquidity, has a positive correlation with both return on asset and return on equity, representing financial performance. Current ratio shows to be significant to return on asset but not with return on equity. But quick ratio did not have any significant effect on both return on asset and return on equity. Then according to the regression coefficients, both current ratio and quick ratio did not have any significant effect on either return on asset or return on equity.

However, this contradicts with Al Nimer et al. (2015) studies about the relationship between quick ratio liquidity and return on asset (ROA) profitability in Jordanian banks. The financial

reports from 2005 to 2011 of 15 Jordanian banks registered on the Amman Stock Exchange (ASE) were used in the analysis (Al Nimer et al., 2015). According to Al Nimer et al. (2015), the independent variable quick ratio significantly affects return on asset (ROA). That implied that liquidity has a major impact on profitability in Jordanian banks but that does not seem to be the case on liquidity on ROA and ROE among banks in Ghana.

The findings of this studies agree with the findings by Edem (2017). Edem (2017) developed three hypotheses, which were then statistically tested using multiple linear regression analysis at a five percent level of significance. The results of the empirical investigation demonstrate a significant correlation between deposit money banks' effectiveness in Nigeria and their liquidity management. The correlation results suggest a positive relationship across ROE and liquidity. That goes in line with the correlation results from this study.

The next objective of this study which was, to examine the impact of financial leverage on the financial performance of listed banks on the GSE, was achieved as the results showed that DA had a positive correlation with both ROA and ROE according to the correlation matrix. On the other hand, DE too shown a negative correlation with return on asset and return on equity. Then the coefficients show that debt to asset has a significant impact on both return on asset and return on equity. But debt to equity did not show any level of significance with either return of asset or return on equity.

The findings from this study disagrees with Rahman et al. (2020), as Rahman et al. (2020) investigated the effect of financial leverage on business profitability in Bangladesh's listed textile industry. Rahman et al. (2020) study was conducted using a sample of twenty-two (22) textile firms on the Designated Stock Exchange (DSE). Rahman et al. (2020) state that Return on Equity (ROE) is used to gauge a company's profitability and that debt to equity are utilized as stand-ins for financial leverage. Rahman et al. (2020) discovered a substantial

inverse association between leverage and business profitability. But our findings did not show any significance and impact amongst debt to equity and return on equity.

In a study conducted by Ahmad et al. (2015) established a probabilistic connection between financial leverage and the profitability of Pakistan's cement industry. Twenty-one (21) cement producers were taken into account. 108 observations made up the sample size for the six (6) year period spanning 18 firms. In order to find a causal connection between the variables. According to Ahmad et al. (2015), financial leverage has a significant negative impact on profitability. However, the findings from this study show a positive impact of debt to asset on both return on asset and return on equity. That is contrary to the findings of Ahmad et al. (2015) as Ahmad et al., (2015) recorded a negative impact on profitability.

The last objective of this study, which is to show the comparative nature financial leverage and liquidity have on the financial performance of banks found on the GSE, can be seen as debt to asset, current ratio and quick ratio has a positive strong correlation with both ROA and ROE, but debt to equity recorded negative correlation with ROA and ROE according to the correlation matrix. Only current ratio shown some level of significance with return on asset of banking firms in Ghana according to the correlation matrix. But according to the regression coefficient, only debt to asset had a significant impact on the firm’s performance of banking firms in Ghana.

According to Hongli et al. (2019), in a survey showed that liquidity has a significantly positive impact on return on equity (ROE), which was utilized as a performance indicator. Additionally, Hongli et al (2019) research revealed that financial leverage has a significant beneficial impact on a firm's performance (ROA & ROE), with 65% of debt utilized to finance a firm's assets, which has a significant effect on business. ROA and ROE were

chosen by Hongli et al. (2019) as proxies for enterprise performance. But the findings by Hongli et al. (2019) does not agree with our findings from this study.

However, the findings of this study agree with the findings by Kajola et al. (2019). Kajola et al. (2019) used data from seventeen consumer goods companies listed on the Nigerian Stock Exchange between the financial years of 2012 and 2017. Multiple regression was used by Kajola et al. (2019), who used pooled Ordinary Least Squares as their estimate method. According to Kajola et al. (2019), financial performance was significantly impacted by the value of the coefficient and the degree of combined leverage, which were used as leverage proxies.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter summarizes the key outcomes of the data. This section also provides conclusions and recommendations as well as proposals for future research studies.

5.1 SUMMARY OF FINDINGS

The summary of this study is categorized according to the various specific objectives.

5.1.1 Trends of Financial Leverage and Liquidity

The study revealed that the trend of the average debt to assets fluctuated from 2016 to 2021. The highest steep in fall was in 2020, from 0.8362 in 2019 to 0.7737 in 2020. Then experienced the highest rise from 0.7737 to 0.8594 in 2021. Also, the trend of the average debt to equity ratio were fluctuating from 2016 to 2021. The highest steep in fall was in 2020, from 6.7234 in 2019 to 5.6933 in 2020. Then experienced a rise from 5.6933 to 5.7707 in 2021.

Then for the liquidity ratio, the study revealed that the trend of the average current ratio did experience a gradual increase and decrease from 2016 to 2018. Then started to rise from 2018 to 2021. Again, the trend of the average quick ratio experienced some gradual fall from 2016 to 2020. But then rose from 2020 to 2021.

5.1.2 Liquidity and Firm Performance

Return on asset (ROA) recorded a positive pearson correlation of 0.353 with current ratio and 0.201 with quick ratio. This indicates that there is a positively weak correlation among quick ratio, current ratio and return on asset. Also, ROE recorded a pearson correlation value of

0.165 with current ratio and 0.048 with quick ratio. That also shown a positively weak correlation between current ratio, quick ratio and return on equity their values were below 0.50. Also from the correlation matrix, current ratio had a significant impact on return on asset as current ratio recorded a significant value of 0.009. But quick ratio has a significant value of 0.144 with return on asset which indicates that quick ratio has no significant effect on return on asset. Current ratio and quick ratio then recorded a significant value of 0.233 and 0.733 respectively with return on equity. All that clearly show is that, debt to equity ratio, current ratio and quick ratio had no significant effect on return on equity.

But from the regression coefficient current ratio has "Sig" of 0.320 and quick ratio has "Sig" of 0.667. That shown that current ratio and quick ratio do not have any substantial effect on the return of assets of banks on the GSE. Also, current ratio has "Sig" of 0.510 and quick ratio has "Sig" of 0.515. That shown that debt to equity, current ratio and quick ratio do not have any significant effect on return of equity of banks listed on the Ghana Stock Exchange.

5.1.3 Financial Leverage and Firm Performance

Return on asset (ROA) recorded a positive pearson correlation value of 0.198 with debt to asset ratio but a negative value of -0.259 with debt-to-equity ratio. This indicates that there is a positively weak correlation between DA ratio and return on asset but a weak negative correlation across debt-to-equity ratio and return on asset. Also, ROE recorded a pearson correlation value of 0.245 with DA and an inverse correlation value of -0.095 with debt to equity. That also shown a positively weak correlation between debt to asset and ROE and a negatively weak relationship between return on equity and debt to equity ratio according to the correlation matrix.

Debt to asset has a significant value of 0.151 with return on asset which indicates that debt to asset has no significant impact on ROA. Return to asset then had a significant value of 0.059

with debt to equity indicating there is no substantial effect of return to asset on debt-to-equity ratio since the significant value is higher than the threshold of 0.05. The correlation matrix also shown that debt to asset had a significant value of 0.074 with return on equity meaning debt to asset has no significant impact on return on equity of the banks listed on the Ghana Stock Exchange. Again, debt to equity ratio shown a significant value of 0.494 with return on equity.

5.1.4 Financial Leverage, Liquidity and Firm Performance

Debt to asset recorded a pearson correlation value of -0.171 and -0.155 with current ratio and quick ratio respectively. These values show debt to asset have a negative correlation with current ratio and quick ratio. However, since their pearson correlation value is less than -0.5, their negative correlation is weak. But debt to asset ratio recorded a pearson correlation value of 0.450 with debt-to-equity ratio. That indicates, debt to asset have a positive correlation with debt to equity, which is a weak one. Debt to equity recorded a pearson correlation value of -0.636 and -0.455 with current ratio and quick ratio respectively.

These values show debt to equity have an inverse relationship with current ratio and quick ratio. However, since their pearson correlation value for quick ratio is less than -0.5, its negative correlation is weak. Also from the correlation matrix, liquidity (current ratio) had a significant impact on return on asset as financial leverage did not have any significant impact on either ROA or ROE. But from the regression coefficient, financial leverage (debt to asset) did have a positive significant impact on both ROA and ROE and liquidity did not.

5.2 CONCLUSION

The principal aim of this study is to examine the effect of liquidity and financial leverage on financial performance of listed banks on the Ghana Stock Exchange (GSE) from 2016–2021. The study concludes that, debt to asset ratio, current ratio and quick ratio had a positive

pearson correlation with return on asset according to the correlation matrix. But debt to equity ratio had a negative pearson correlation with return on asset. Then debt to asset, debt to equity and quick ratio had no significance effect on return on assets from the correlation matrix. But current ratio had a significant impact on return on asset according to the correlation matrix. The regression coefficient also concluded that debt to equity, current ratio and quick had no significance effect on return on asset. That meant that, the rise and fall in DA, CR and QR among the banking firms have no effect on return on asset of banking firms listed on the Ghana Stock Exchange.

Again, DA, CR and QR had a positive pearson correlation with return on equity according to the correlation matrix. But debt to equity ratio had a negative correlation with ROE. Then DA, DE, CR and QR had no significance effect on ROE from the correlation matrix. The regression coefficient also concluded that debt to equity, current ratio and quick had no significance effect on return on equity. That meant that, the rise and fall in debt-to-equity ratio, current ratio and quick ratio among the banking firms have no effect on return on equity of banking firms listed on the Ghana Stock Exchange (GSE). But the regression coefficient shown that debt to asset had a significant impact on both ROA and ROE on the various banks in Ghana, meaning debt to asset ratio have a significant impact on the firms' performance of the banks in Ghana.

5.3 RECOMMENDATIONS

5.3.1 Recommendations of the study

The following recommendations are been made base on the objectives of the study:

1. Policy makers (Government and Central Bank) should take into consideration the values of the debt to asset ratio along with capital adequacy ratio in assessing the solvency of the various firms.
2. Managers of the various banks listed on the Ghana Stock Exchange (GSE) should focus on debt to asset ratio as one of their solvency indicators ahead of debt to equity, current ratio and quick ratio.
3. Investors (both internal and external) should assess the banks with their debt to asset ratio as a measure in ascertaining the solvency nature of the various banks. This would give them a clearer picture as to where to invest more and less.

5.3.2 Recommendation for further studies

Studies should be carried out in the following areas:

1. Further studies should be carried on the impact of financial leverage and liquidity on firms' performance among the mining firms in Ghana.
2. Further studies should also be carried on impact of financial leverage and liquidity on firms' performance among the banking firms in other West African countries.

KNUST

REFERENCES

Adenugba, A.A., Ige, A.A. and Kesinro, O.R., 2016. Financial leverage and firms' value: A study of selected firms in Nigeria. *European Journal of Research and Reflection in Management Sciences*, *4*(1).

Ahmad, N., Salman, A. and Shamsi, A., 2015. Impact of financial leverage on firms' profitability: An investigation from cement sector of Pakistan. *Research Journal of Finance and Accounting*, *6*(7), pp.2222-1697.

Al Nimer, M., Warrad, L. and Al Omari, R., 2015. The impact of liquidity on Jordanian banks profitability through return on assets. *European Journal of Business and Management*, *7*(7), pp.229-232.

Almagtome, A., Khaghaany, M. and Önce, S., 2020. Corporate governance quality, stakeholders' pressure, and sustainable development: An integrated approach. *International Journal of Mathematical Engineering and Management Sciences*, *5*(6).

Almaqtari, F.A., Al-Homaidi, E.A., Tabash, M.I. and Farhan, N.H., 2019. The determinants of profitability of Indian commercial banks: A panel data approach. *International Journal of Finance & Economics*, *24*(1), pp.168-185.

Al-Shiyab, F.A.H., 2021. *The Impact of Bank Liquidity on The Profitability of Jordanian Commercial Banks* (Doctoral dissertation, Yarmouk University).

Aminah, L.S., 2021. The Effect Of Current Ratio, Net Profit Margin, And Return On Assets On Stock Return:(Study On Food And Beverages Companies Listed On The Indonesia Stock Exchange 2015-2017 Period). *Journal of Management, Accounting, General Finance and International Economic Issues (Marginal)*, *1*(1), pp.1-9.

Banafa, A.S.A., 2015. The impact of leverage on Financial performance of listed non-financial firm in Kenya.

Bebchuk, L.A., Cohen, A. and Hirst, S., 2017. The agency problems of institutional investors. *Journal of Economic Perspectives*, *31*(3), pp.89-112.

Booth, A., 2016. Searching for qualitative research for inclusion in systematic reviews: a structured methodological review. *Systematic reviews*, *5*(1), pp.1-23.

Cleasby, I.R. and Nakagawa, S., 2011. Neglected biological patterns in the residuals: a behavioural ecologist's guide to co-operating with heteroscedasticity. *Behavioral Ecology and Sociobiology*, *65*, pp.2361-2372.

Duncan, D.D., 2020. *A framework of strategic integrated communication of banks in Accra, Ghana* (Doctoral dissertation).

DWIARTI, R., HAZMI, S., SANTOSA, A. and RAHMAN, Z., 2021. Does bankruptcy matter in non-banking financial sector companies?: evidence from Indonesia. *The Journal of Asian Finance, Economics and Business*, *8*(3), pp.441-449.

Edem, D.B., 2017. Liquidity management and performance of Deposit Money Banks in Nigeria (1986 – 2011): An investigation. International Journal of Economics, Finance and Management Sciences, 5(3), pp.146 – 161.

Gagnon, J., Raskin, M., Remache, J. and Sack, B., 2018. The financial market effects of the Federal Reserve's large-scale asset purchases. *24th issue (Mar 2011) of the International Journal of Central Banking*.

Gertler, M. and Gilchrist, S., 2018. What happened: Financial factors in the great recession. *Journal of Economic Perspectives*, *32*(3), pp.3-30.

Goel, U., Chadha, S. and Sharma, A.K., 2015. Operating liquidity and financial leverage: Evidences from Indian machinery industry. *Procedia-Social and Behavioral Sciences*, *189*, pp.344-350.

Goundar, S., 2012. Research methodology and research method. *Victoria University of Wellington*.

Guo, H., Legesse, T.S., Tang, J. and Wu, Z., 2021. Financial leverage and firm efficiency: The mediating role of cash holding. *Applied Economics*, *53*(18), pp.2108-2124.

Haralayya, B. and Aithal, P.S., 2021. Implications of banking sector on economic development in India. *George Washington International Law Review*, *7*(1), pp.631-642.

Hongli, J., Ajorsu, E.S. and Bakpa, E.K., 2019. The Effect of Liquidity and Financial Leverage on Firm Performance: Evidence from Listed Manufacturing Firms on The Ghana Stock Exchange. *Research Journal of Finance and Accounting*, *10*(8), pp.91-100.

Hossain, I. and Alam, J., 2019. The Relationship between Liquidity and Profitability in Emerging Countries: Evidence from Bangladesh. *Journal of Finance and Accounting*, *7*(1), pp.22-27.

Husna, A. and Satria, I., 2019. Effects of return on asset, debt to asset ratio, current ratio, firm size, and dividend payout ratio on firm value. *International Journal of Economics and Financial Issues*, *9*(5), pp.50-54.

Ibhagui, O.W. and Olokoyo, F.O., 2018. Leverage and firm performance: New evidence on the role of firm size. *The North American Journal of Economics and Finance*, *45*, pp.57-82.

Kajola, S.O., Alao, A., Sanyaolu, W.A. and Ojurongbe, O.J., 2019. Effect of liquidity and leverage on financial performance of Nigerian listed consumer goods firms. *The journal Contemporary Economy*, *4*(3), pp.91-102.

Kepha, A., 2020. *The influence of ISO 9001 quality management system implementation on financial performance among companies listed in the Nairobi securities exchange* (Doctoral dissertation, Strathmore University).

Kivunja, C., 2018. Distinguishing between theory, theoretical framework, and conceptual framework: A systematic review of lessons from the field. *International journal of higher education*, *7*(6), pp.44-53.

KODIAH, A.S., 2022. *FINANCIAL PERFORMANCE OF MERGED BANKS IN GHANA: A CASE STUDY OF CONSOLIDATED BANK GHANA LTD* (Doctoral dissertation).

Kontuš, E. and Mihanović, D., 2019. Management of liquidity and liquid assets in small and medium-sized enterprises. *Economic research-Ekonomska istraživanja*, *32*(1), pp.3247-3265.

Marashdeh, Z., Saidat, Z., Alkhodary, D. and Al-Haddad, L., 2021. Agency theory and the Jordanian corporate environment: why a single theory is not enough. *Academy of Accounting and Financial Studies Journal*, *25*(5), pp.1-15.

Mbonu, C.M. and Amahalu, N.N., 2021. Effect of firm characteristics on capital structure of insurance companies listed on Nigeria stock exchange. *International Journal of Management Studies and Social Science Research*, *3*(5), pp.217-228.

Nukala, V.B. and Prasada Rao, S.S., 2021. Role of debt-to-equity ratio in project investment valuation, assessing risk and return in capital markets. *Future Business Journal*, *7*(1), p.13.

Obuobi, B., Nketiah, E., Awuah, F. and Amadi, A.G., 2019. Recapitalization of banks: Analysis of the Ghana banking industry. *Open Journal of Business and Management*, *8*(01), p.78.

Ogachi, D., Ndege, R., Gaturu, P. and Zoltan, Z., 2020. Corporate bankruptcy prediction model, a special focus on listed companies in Kenya. *Journal of Risk and Financial Management*, *13*(3), p.47.

Osei, A.A., Yusheng, K., Caesar, A.E., Tawiah, V.K. and Angelina, T.K., 2019. Collapse of big banks in Ghana: Lessons on its corporate governance. *International Institute for Science, Technology and Education*.

Osei, R.D., Atta-Ankomah, R. and Lambon-Quayefio, M., 2020. *Structural transformation and inclusive growth in Ghana* (No. 2020/37). WIDER Working Paper.

Painter, M., 2020. An inconvenient cost: The effects of climate change on municipal bonds. *Journal of Financial Economics*, *135*(2), pp.468-482.

Pamuji, A.E., Supandi, A.F. and Sa'diyah, M., 2022. Islamic Financial Institutions as Strengthening The Economy of The Ummah (Study on The Application of Shariah Agreements in Islamic Financial Institutions). *OECONOMICUS Journal of Economics*, *7*(1), pp.24-36.

Panda, B. and Leepsa, N.M., 2017. Agency theory: Review of theory and evidence on problems and perspectives. *Indian journal of corporate governance*, *10*(1), pp.74-95.

Schückes, M. and Gutmann, T., 2021. Why do startups pursue initial coin offerings (ICOs)? The role of economic drivers and social identity on funding choice. *Small Business Economics*, *57*(2), pp.1027-1052.

Senthilnathan, S., 2019. Usefulness of correlation analysis. *Available at SSRN 3416918*.

Shad, M.K., Lai, F.W., Fatt, C.L., Klemeš, J.J. and Bokhari, A., 2019. Integrating sustainability reporting into enterprise risk management and its relationship with business performance: A conceptual framework. *Journal of Cleaner production*, *208*, pp.415-425.

Stock, J.H. and Watson, M.W., 2006. Forecasting with many predictors. *Handbook of economic forecasting*, *1*, pp.515-554.

Úbeda-García, M., Claver-Cortés, E., Marco-Lajara, B. and Zaragoza-Sáez, P., 2021. Corporate social responsibility and firm performance in the hotel industry. The mediating role of green human resource management and environmental outcomes. *Journal of Business Research*, *123*, pp.57-69.

Zaitoun, M. and Alqudah, H., 2020. The Impact of Liquidity and Financial Leverage on Profitability: The Case of Listed Jordanian Industrial Firm's. *International Journal of Business and Digital Economy*, *1*(4), pp.29-35.