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DEPARTMENT OF STATISTICS AND MATHEMATICS

THE RELATIONSHIP BETWEEN BANK CAPITAL ADEQUACY AND FINANCIAL EFFICIENCY OF COMMERCIAL BANKS IN ZIMBABWE 2006-2021.

Submitted By

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A DISSERTATION SUBMITTED IN PARTIAL FULLFILLMENT OF THE REQUIREMENTS OF THE BACHELOR OF SCIENCE HONOURS DEGREE IN STATISTICS AND FINANCIAL MATHEMATICS

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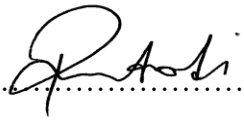
DECLARATION OF AUTHOURSHIP

I PETER MUTODI, declare that this research project is my original work and has not been copied or extracted from previous sources without due acknowledgement of the source.



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Submitted by B193386B in partial fulfilment of the requirements of the Bachelor of Science (Honours) Degree in Statistics and Financial Mathematics

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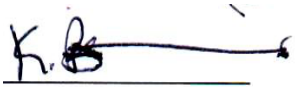

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DEDICATIONS

To my loving parents, Mr and Mrs Mutodi, who gave me the opportunity of academic essential. Again, to all of my siblings for their continual encouragement and support. Finally to those whose prayer have made me who l am today.

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ABSTRACT

The study investigates the relationship between the capital adequacy and the financial efficiency of commercial banks in Zimbabwe. Statistical Package for the Social Sciences (SPSS) was used to analyze the data, including descriptive statistics, correlation analysis and regression analysis with the aim of identifying the determinants of capital adequacy and financial efficiency. This research would describe the connections between the explanatory variables, bank capital sufficiency, bank size, and asset quality, and the response variable, financial efficiency. Secondary data was generated from the RBZ portal for the period 2006 to 2021. SPSS software was used to run data. The research finds that capital adequacy is a significant determinant of financial efficiency, with banks that maintain higher levels of capital adequacy tending to have higher financial efficiency. It also finds that banks with a higher level of profitability tend to have higher levels of financial efficiency. Macroeconomic factors such as inflation and exchange rate fluctuations have a significant impact on the financial performance of commercial banks in Zimbabwe, with banks experiencing higher levels of non-performing loans and lower levels of profitability during periods of high inflation and exchange rate fluctuations. The study recommends that the Zimbabwean authorities should implement stricter regulations on bank capital adequacy to ensure that banks maintain sufficient levels of capital to absorb potential losses. The research also recommends that banks should improve their risk management practices, including their risk-taking behavior and asset quality management, to ensure that they can maintain adequate levels of capital and financial stability.

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

BAZ	Bankers Association of Zimbabwe
CAR	Capital Adequacy Ratio
IMF	International Monetary Fund
KPI	Key Performance Indicator
NPLs	Non-Performing Loans
RBZ	Reserve Bank of Zimbabwe
ROA	Return on Assets
ROE	Return on Equity
TA	Total Assets
VIF	Variance Inflation Factor
ZNCC	Zimbabwe National Chamber of Commerce

TABLE OF CONTENTS

CHAPTER I: INTRODUCTION

1.0 Introduction

Any modern economy must have banking because it gives both individuals and corporations the ability to utilize financial services. The banking industry in Zimbabwe is crucial to the country's economic development by providing credit, facilitating transactions, and promoting financial inclusion. However, the banking sector in Zimbabwe has faced several challenges in recent years, including low capital adequacy levels and poor financial performance. This consider points to look at the relationship between bank capital adequacy and financial efficiency in Zimbabwe's commercial banks. Zimbabwe's commercial banks are closely regulated by the RBZ. On their efficiency, efficacy, and performance, this has both good and bad impacts. The Reserve Bank of Zimbabwe (RBZ) required all commercial banks to conform to specific levels of capital adequacy ratio and liquidity ratio (30% of deposit) in accordance with Zimbabwe's 2016 Monetary Policy. The fundamental components that will be addressed in this chapter include background information, a problem statement, study's clearly defined objectives, research questions, the significance of the study, scope, limitations and ended with a chapter summary.

1.1 Background of the Study

1.1.1 Structure of the Zimbabwean Banking Sector

In Zimbabwe, there were 18 active banking institutions as of October 2018, including 13 commercial banks, 4 building societies, and a savings bank, according to RBZ (2018). The industry is dominated by commercial banks in terms of deposits, loans, and advances. The overwhelming actors in Zimbabwe's banking segment are commercial banks.

1.1.2 Performance of the Banking Industry

According to Zimbabwe's 2016 Monetary Policy Statement, the banking industry shown positive changes in 2015, which were supported by its continued safety and soundness, which was satisfactory in terms of measures including capital adequacy, liquidity, and profitability, among others. Maea (2010) conducted study on how basic regulatory instruments for banking supervision affect banks' productivity. Three of the most essential regulatory instruments for banking supervision are capital requirements, asset quality criteria, and they have an effect on bank efficiency, according to Maea (2010).

Basel (2013) advises placing a capital requirement on central banks. RBZ also invests in regulatory capital. As outlined in Zimbabwe's Monetary Policy of 2018, there are three banking institutions, namely Stanbic, BancABC, and Standard Chartered that have capital levels exceeding $50 million. In the interim, two other banks, CBZ Bank and CABS, have as of now met the least capital prerequisite of $100 million for the Level 1 Key Gather, which can ended up compelling in 2020.Capital requirements, asset quality standards, and their impact on bank efficiency are three of the most crucial regulatory tools for banking supervision, according to Maea (2010).

Different parties articulated the liquidity issue in different ways. Other stakeholders disagree with the RBZ Monetary Policy Statement's assertion that the financial system is liquid. The Zimbabwe National Chamber of Commerce (ZNCC) claims that the economy has significant levels of illiquidity. The IMF (2018) and CZI Manufacturing sector survey concur with ZNCC. Both organisations emphasised that Zimbabwe's difficult cash constraints have been caused by low commodities prices.

The ZSE reports that the stock market continued to trend downward in 2018 due to persistently weak economic growth supported by liquidity restrictions that also characterised most of 2017. According to MMC Capital, who agrees with ZSE, declining industrial capacity utilisation is mostly due to liquidity constraints. A shortage of liquidity is made worse by declining exports, which have occasionally required banks to physically repatriate cash in order to deposit it into their nostro accounts and pay for international telegraphic transfers. (BAZ 2018)

By the end of December 2018, RBZ, the loan-to-deposit ratio has decreased from 78.4% as of the previous year's end to 68.8%. The pace at which banks convert deposits into loans and their capacity to collect those loans are two factors that may be used to evaluate a bank's performance, according to the Bankers Association of Zimbabwe. The decrease in loans to deposits of 10.4% suggests that part of the money deposited may not be all loans.

Efficiency and non-performing credits have a negative relationship, according to BAZ (2016). Non-performing loan percentage dropped from 20.45% on 30 September 2017 to 10.87% by 31 December 2018 as a percentage of all loans, was commended by monetary policy. However, it

still exceeds the acceptable non-performing loan ratio of 4%. The decline in the deposit-to-loan ratio, in BAZ's opinion, shows that banks in Zimbabwe are not operating efficiently.

1.1.3 Description of the Issue

As of December 31, 2017, just one of Zimbabwe's thirteen active commercial banks has already achieved the minimum capital requirement for 2020. This suggests that the other twelve commercial banks have not yet achieved the necessary capital levels, which may be due to this dissertation studies the behaviour return on assets (ROA) and return on equity (ROE) of firms that have managed to meet the capital requirement against those that have not.

1.2 Research Objectives

a) To examine the relationship between bank capital adequacy and financial efficiency of commercial banks in Zimbabwe.

b) To analyze how non-performing loans impact the financial efficiency of commercial banks in Zimbabwe.

c) To identify the factors that influence the capital adequacy ratio of commercial banks in Zimbabwe.

1.3 Research Questions

a) What is the correlation between bank capital adequacy and financial efficiency among commercial banks in Zimbabwe?
b) How do non-performing loans affect the financial efficiency of commercial banks in Zimbabwe?
c) What factors contribute to the capital adequacy ratio of commercial banks in Zimbabwe?

1.4 Significance of the Study

a. To financial institutions

The study informs RBZ of the connection between asset quality, prudential liquidity ratio, and capital adequacy ratio and their effects on bank efficiency. By highlighting the factors that influence capital adequacy ratio, the study can help banks in Zimbabwe improve their financial performance. By promoting higher levels of capital adequacy,

banks can reduce their risk of failure, increase their access to funding, and improve their profitability.

b. To depositors

The study will provide a grade to each bank based on its efficiency, and this information is crucial for customers in Zimbabwe who use banking services to choose where to put their savings and deposits, for instance.

c. To the investigator

Additionally, the researcher will get exposure and practical experience. It will increase research capabilities, expertise, and career advancement in financial management. The knowledge will be added to the university database and made available to faculty and students at the Bindura University of Science Education (BUSE) as a resource for their forward studies. By improving our knowledge of the variables that have an impact on the capital adequacy ratio, the findings from this research adds to the body of literature already available on banking and finance. By synthesizing and analyzing existing literature, the study provides a comprehensive overview of the topic and highlights the gaps in the existing literature. By identifying the key factors that influence capital adequacy ratio, the study provides insights into how regulators and banks can improve financial stability in Zimbabwe. By promoting higher levels of capital adequacy, regulators can reduce the likelihood of bank failures and protect depositors' funds.

d. Informed policy making

The study can provide valuable insights to policymakers in Zimbabwe, who can use the findings to inform policy making related to capital adequacy ratio. By understanding the key drivers of capital adequacy ratio, policymakers can design policies that promote higher levels of capital adequacy and reduce the likelihood of bank failures.

e. Practical implications

The analysis has applications for Zimbabwean banks and regulators, who can utilize the findings to improve their understanding of CAR and to develop strategies to promote higher levels of capital adequacy. By promoting higher levels of capital adequacy, banks

can reduce the likelihood of failure, increase their access to funding, and improve their profitability, while regulators can promote financial stability and protect depositors' funds.

1.5 Scope of Study

Financial institutions in this investigation refer to commercial banks.

The research will be based on financial results for the period 2006 and 2021

The research will use banks that had a going concern status as at 31 December 2021

Additionally, potential external factors such as political climate, economic trends, and inflation that may have an effect on the company's financial success, were not taken into account in the study.

1.6 Limitations of Study

Since financial records are prone to window dressing, the study's foundation is secondary data, which may not present an accurate picture of the situation. Only audited financial statements are utilised in order to reduce the possibility of this constraint. Other types of efficiency, such as allocative efficiency and operational efficiency, could not be reflected in financial efficiency.

1.7 Chapter Summary

This chapter looked at the relationship between revenue efficiency and capital adequacy and outlined the statement, finding out how increasing regulatory capital affecting return on equity and return on assets and finding out how increasing regulatory capital affecting ROE and ROA. Additionally the research problem has also been highlighted to summarize the issues which may have motivated the researcher. The mentioned chapter provided an overview of the study’s objectives, research questions, justification and scope. The next section will examine the previous literature on banking fraud and provide an objective evaluation and analysis of these materials.

CHAPTER II: LITERATURE REVIEW

2.0 Introduction

Theoretical and empirical literature are evaluated in this chapter. The study's literature was highlighted, including a variety of works. It presents a clearly defined discussion of bank capital adequacy and the concept of financial efficiency. The chapter is structured based on the study's objectives from chapter one. Reviewing sources at global level, regional level and within Zimbabwe on the connection between bank capital adequacy and monetary proficiency of commercial banks, the effect of non-performing credits on the money related efficiency of commercial banks and components that impact the capital ampleness proportion of commercial banks. The chapter wrap up with experimental prove and a rundown of the chapter.

2.1 Bank Capital Adequacy

Bank capital adequacy is a critical issue for financial institutions and regulators (Barth et al., 2013). Capital adequacy pertains to the quantity of capital that Banks keep to serve as a buffer for unforeseen losses. The capital adequacy ratio (CAR) is a widely utilized metric that gauges a bank's capital sufficiency. Banks must maintain a CAR above the regulatory minimum to ensure financial stability and solvency.

Bank capital ampleness is the sum of capital that a bank holds in extent to its risk-weighted resources (Dirk Schoenmaker & Samuele Salvini, 2017). The most point of bank capital adequacy directions is to ensure that banks have sufficient capital to oversee misfortunes and stay operational during periods of financial instability. Bank capital adequacy has been a significant concept for many years. It's originated in the 1900s and can be traced back to the enactment of the initial banking laws in the United States.

Additionally, depending on the particular regulatory environment, the effect of capital adequacy on bank lending can change. A study by Berger and Bouwman (2013) found that the impact of capital adequacy on lending is stronger in countries with more stringent regulatory environments. They also found that the relationship between capital adequacy and lending is non-linear, with the largest impact on lending occurring at lower levels of capital adequacy. Another study by Godlewski and Turk-Ariss (2013) inspected the impact of capital adequacy on bank loaning in

emerging markets. They discovered that banks that have elevated capital proportions are more prone to lend to little and medium-sized ventures (SMEs), as they have more resources to support lending activities. They also found that higher capital proportions are related with lower credit interest rates, as banks with more capital can lend at lower rates without sacrificing profitability.

Finally, there have been several regulatory changes pointed at improving bank capital adequacy within the wake of the 2008 monetary emergency. The Basel III framework, implemented by the Basel Committee on Banking Supervision in 2010, presented modern capital and liquidity necessities for banks. A study by Laeven and Valencia (2012) found that the introduction of Basel III led to an increase in bank capital ratios, but also led to a reduction in bank lending.

In short, the literature suggests that bank capital adequacy is a critical issue for financial institutions and regulators. Higher capital adequacy proportions are affiliated with lower risk-taking, higher profitability, and better loan quality, but may also lead to reduced lending and increased risk-taking in certain circumstances. The effect of capital adequacy on bank behavior can moreover shift depending on the particular administrative environment.

2.2 Financial Efficiency

Financial efficiency is the capacity of an organization to effectively manage its financial resources as a way to achieve its goals and objectives Agrawal, (2018). This can be assessed using a range of metrics, including profit edge, ROE, ROA. Financial efficiency is regarded as a key performance indicator (KPI) in the context of organizational management that may be used to evaluate the general wellbeing and success of a company (Ambrose et al., 2018). Financially efficient organizations are able to minimize costs and maximize revenues, which can lead to increased profitability and competitiveness in their respective markets.

Financial efficiency is a crucial aspect of any organization's success, as it refers to how well the organization is using its resources to generate profits. According to Deakin and Konzelmann (2018), financial proficiency is "the capacity of a firm to produce revenues and profits from its resources" (p. 283). Financial efficiency is a vital concept in finance that refers to the capacity of a company to produce maximum returns with least input resources (Choudhury & Ahmed, 2018). It is a measure of the company's productivity and profitability. According to Su and

Fleisher (2016), financial efficiency can be assessed through various measures such as asset utilization, cash flow management, and debt management. In this section of literature review, the researcher will explore the various factors that affect financial efficiency, as well as different ways in which it can be measured and improved.

One important factor that affects financial efficiency is the level of debt that a company carries. According to Kim and Suh (2019), "increased debt levels correspond with heightened financial risk and the lower the financial efficiency" (p. 118). In other words, companies with high levels of debt may struggle to generate profits because they are paying off interest and principal on their loans, leaving less money available for other investments.

One of the key factors that affect financial efficiency is a company's working capital management (Guthrie, 2017). Effective management of working capital guarantees that a company sufficient funds to satisfy its operational requirements without tying up too much capital in inventory or accounts receivable (Guthrie, 2017). This, in turn, leads to better cash flow management, which is essential for financial efficiency. According to Abor and Bokpin (2018), a company's capital structure affects its ability to generate profits and manage risks. A well-structured capital base allows companies to raise capital at a lower cost, which leads to improved financial efficiency. However, excessive debt can lead to financial distress and lower financial efficiency (Abor & Bokpin, 2018).

In addition to working capital management and capital structure, the use of technology can also improve financial efficiency (Younas, 2017). Technology such as automation and artificial intelligence can streamline financial processes and reduce errors, leading to better financial efficiency (Younas, 2017).

Furthermore, a study by Munir et al. (2018) found that ethical leadership can also have a positive impact on financial efficiency. Ethical leadership promotes transparency and accountability, which can lead to better financial management and efficiency.

Therefore, financial efficiency is an important concept in finance that refers to a company's ability to generate maximum returns with minimum input resources. Factors that affect financial efficiency include working capital management, capital structure, technology, and ethical leadership. These factors can be measured using various measures such as asset utilization, cash

flow management, and debt management. By improving financial efficiency, companies can increase productivity and profitability, leading to long-term success.

2.3 The Relationship between Bank Capital Adequacy and Financial Efficiency of Commercial Banks

At global level; “The Relationship between Capital Adequacy and Profitability in Commercial Banks" by Huang and Lu (2018), It examined the connection between capital ampleness and benefit in Chinese commercial banks. The research discovered a beneficial link between the two components. The authors suggest that maintaining satisfactory levels of capital can help banks to improve their profitability and financial stability. In expansion, “The Association between Capital Adequacy and Financial Performance in Nigerian Banks" by Adegbaju and Adesina (2017): This study, which focused on Nigerian banks, discovered a favorable correlation between capital ampleness and financial execution. The authors recommend that maintaining satisfactory levels of capital is important for improving financial performance and reducing the risk of bank failure.

At regional level, in Africa: "The Link between Capital Proportion and Financial Soundness of Banks in Ghana" by Agyemang and Amoah (2017): This study, which centered on Ghanaian banks, found a favorable association between capital ampleness and financial soundness. The authors suggest that maintaining adequate levels of capital is imperative for guaranteeing the soundness of the banking framework and decreasing the risk of bank failure. In addition, “The Effect of Capital Ampleness on the Financial Execution of Commercial Banks in South Africa" by Kapingura and Mashavave (2017): This think about, which centered on South African banks, found a positive connection between capital ampleness and financial execution.

The correlation between bank capital adequacy and financial efficiency has been a widely researched topic in the banking industry worldwide. In Zimbabwe, several studies have been conducted to investigate this relationship, with a focus on the commercial banking sector. According to a study by Muranganwa and Nherera (2014), capital adequacy has a significant positive correlation with financial efficiency in Zimbabwean commercial banks. The research utilized information from 10 commercial banks in Zimbabwe for the period 2007-2011 and found that elevated levels of capital ampleness were related with higher levels of financial

efficiency. The authors concluded that maintaining adequate levels of capital is important for sustaining banking sector financial performance.

Another study by Mabvure (2015) analyzed the connection between capital ampleness and financial execution of Zimbabwean commercial banks from 2005 to 2013. The analysis discovered a positive connection between capital ampleness and financial proficiency, indicating that higher levels of capital adequacy lead to better financial performance. The investigation also concluded that the effect of capital adequacy on financial proficiency is stronger during times of economic stability.

Similarly, a study by Gwinyayi and Muzavazi (2018) analyzed the association between capital adequacy and financial efficiency of Zimbabwean commercial banks for the period 2009-2016. The study discovered a positive association between capital adequacy and financial proficiency, indicating that higher levels of capital ampleness lead to better financial performance. The authors suggested that banks should strive to maintain adequate levels of capital to ensure sustainable financial performance.

Therefore, these studies from global and regional sources suggest that there is a positive connection between bank capital adequacy and financial efficiency/performance. Maintaining adequate levels of capital is important for ensuring the steadiness and sustainability of the banking industry. Also, previous studies conducted in Zimbabwe have consistently found a positive association between bank capital adequacy and financial efficiency/performance in the commercial banking sector. These findings suggest that maintaining adequate levels of capital is critical for ensuring sustainable financial efficiency in the banking sector.

2.4 The Influence of Non-Performing credits on Commercial Banks' Financial Efficiency

At the global level, non-performing loans (NPLs) have been discovered to have a notable effect on the financial efficiency of commercial banks. According to a study by the International Monetary Fund (IMF) (2017), NPLs reduce the profitability of banks and increase their funding costs. This hinders the Bank’s ability to lend, affecting economic growth. The study found that high NPLs lead to a decline in bank credit and monetary growth, thus lowering economic growth and increasing unemployment. Another study by Nica et al., (2019) on the European Union (EU) uncovered that NPLs pose a disruptive influence on the banking system. Their study found that

NPLs lead to higher capital costs, lower profitability, and lower credit expansion, thus negatively impacting economic growth. The study noted that the impact of NPLs was most significant in countries with weaker macroeconomic fundamentals and more significant structural vulnerabilities. The authors suggested that addressing NPLs requires a supportive regulatory and institutional framework and improving the legal system's efficiency.

On the regional level, African Development Bank (2018), highlights the rising concerns of non-performing credits in Sub-Saharan Africa. The report notes that high levels of NPLs lead to a reduction in bank lending, affecting economic growth and job creation. The study recommends better credit risk assessment frameworks, macroeconomic policy management, and reforms in the legal system to address the issue of high NPLs in the region. Tiamiyu et al., (2017). This research report titled "Non-Performing Loans and Financial Performance of Selected Nigerian Deposit Money Banks" examines the influence of non-performing credits on the financial efficiency of a few Nigerian deposit money banks with a specific focus on doing so. According to the analysis, non-performing loans significantly harm banks' profitability and liquidity ratios. The authors recommended that banks enhance their credit risk management procedures in order to decrease the amount of non-performing credits. Laryea et al., (2017) subsequent analysis in Africa also analyzed the connection between risk management and NPLs in Ghanaian banks. Their research found a positive correlation between non-performing credits and credit risk, thereby suggesting that banks need to improve their risk administration strategies to decrease the number of non-performing credits. The authors also recommended the implementation of effective loan recovery mechanisms and the strengthening of legal enforcement systems to resolve the issue of non-performing credits in Ghanaian banks.

Locally, NPLs have had a substantial impact on Zimbabwe's commercial banks' ability to manage their finances. Concurring to the RBZ 2019 monetary policy explanation, NPLs increased from 7.08% in December 2018 to 8.22% in May 2019, negatively impacting the banking sector's performance. The increase in NPLs was attributed to the challenging economic environment, characterized by high inflation, foreign currency shortages, and limited foreign direct investment. The RBZ has put in place several measures, including the creation of a NPLs management framework and intensifying loan recovery efforts, to lessen the effect of NPLs on the banking sector's proficiency.

The effect of non-performing credits on the financial performance of commercial banks in Zimbabwe is examined by Nhamburo and Mugadza (2017). The findings indicate that non-performing credits have an adverse effect on commercial banks' profitability, liquidity, and solvency. The investigation proposes that commercial banks need to increase their loan recovery efforts, improve risk management systems and implement strong legal and institutional frameworks to handle the concern of non-performing credits. Another source by Muzarurwi, and Chikwanha, (2017), investigates the effect of non-performing debts on the financial soundness of banks in Zimbabwe. According to the research, large levels of non-performing loans could potentially have an influence on the stability of the banking industry because non-performing credits have a negative correlation effect on banks' capital adequacy and liquidity. The analysis recommends that banks need to enhance their loan recovery mechanisms and implementing credit risk management systems can aid in decreasing the level of NPLs.

In short, at the international, regional, and local levels, NPLs have a major negative influence on the financial efficiency of commercial banks. Addressing NPLs requires a supportive regulatory and institutional framework, efficient legal systems, and intensified loan recovery efforts. For Zimbabwe, addressing NPLs is crucial to guarantee steadiness in the banking industry and promote economic growth in the country.

2.5 Components that Impact the Capital Adequacy Proportion of Commercial Banks.

At global level, Liu (2014), examines the factors of capital adequacy in globally systemic important banks (G-SIBs) using a sample of 28 banks from 11 countries. The results show that although the degree of credit risk, operational risk, and market risk have an adverse impact on the capital adequacy proportion, the size, complexity, and systemic importance of banks have a favorable impact on the ratio. Using a sample of 68 banks from 19 different countries, Ahmad and Khan (2018) investigate the factors that affect the CAR of commercial banks around the world. The results show that profitability, asset size, loan Quality, and liquidity positively influence the CAR, while income volatility, credit risk, and operational risk negatively affect the CAR.

At the regional level in Africa, Okoroafor, and Ezenwoke, (2018), in a study titled; using a sample of 69 banks from 22 different African nations, the study Determinants of CAR of

Commercial Banks in Africa looks into the factors that affect CAR of commercial banks in Africa. The outcomes suggest that bank size, asset quality, and profitability positively affect the CAR, while loan growth, operational expenses, and non-interest expenses negatively influence the CAR. The determinants affecting the capital adequacy ratios of commercial banks in sub-Saharan Africa are also investigated by Nwaiwu and Ariori (2019) using a sample of 62 banks from four nations (Nigeria, Kenya, South Africa, and Ghana). The findings demonstrate that profitability, asset quality, and liquidity have a favorable impact on the CAR whereas loan growth, NPLs, and bank size have a negative impact on it.

In Zimbabwe, Mudzonga, and Zinyemba, (2017), in a study titled; using a sample of 10 banks, the study Determinants of Capital Adequacy Ratio for Commercial Banks in Zimbabwe examined the factors that influence the CAR for commercial banks in Zimbabwe. The results show that NPLs have a negative impact on the CAR, whereas asset quality, profitability, and capital structure have favorable effects. In addition, Mushanyuri and Chinyama (2019), analyzed the components that impact the capital adequacy of commercial banks in Zimbabwe employing a test of 12 banks. The findings show that asset quality, profitability, loan concentration, and operational efficiency positively affect the CAR, while loan growth and the degree of non-performing credits negatively influence the CAR.

In short, these sources reveal that the factors of capital adequacy ratios of commercial banks vary depending on the level of analysis. At the global level, bank size, complexity, systemic importance, and risks have a significant impact on the CAR. At the regional level, asset quality, profitability, loan growth, operational expenses, and non-performing loans are important determinants of the CAR, while at the local level, asset quality, profitability, capital structure, loan concentration, operational efficiency, loan growth, and non-performing credits influence the CAR of commercial banks.

2.6 Conceptual Framework

A conceptual framework, based on Varpio (2020), is a diagram that depicts the expected link between the cause-and-effect factors. It draws attention to the study objectives and organizes how they relate to get to insightful findings. A conceptual framework is a graphical or visual representation that brings to light the relationships between variables within a study or research

work. It provides the researcher a road map to use as they collect and analyze their data. The conceptual framework for this research would describe the connections between the explanatory variables, bank capital sufficiency, bank size, and asset quality, and the response variable, financial efficiency. The following describes the conceptual basis for this study:

Financial Efficiency ⟶ f (Bank Capital Adequacy, Bank Size, Asset Quality)

Where:

Financial Efficiency is the response variable, which is quantified using ROA.

Bank Capital Adequacy is the independent variable, which is quantified using CAR.

Bank Size is the independent variable, which is measured using total assets.

Asset Quality is the independent variable, which is quantified using the NPLs ratio.

The conceptual framework above shows that financial efficiency is affected by the bank capital adequacy, bank size, and asset quality. The researcher will use this conceptual framework to guide the data collection and analysis process and to ensure that the study is focused on the key variables that are expected to have an impact on financial efficiency. In order to evaluate the hypotheses and understand the findings of this inquiry, the conceptual framework is also used.

2.7 Empirical Evidence

According to Babouek and Janar's (2005) analysis of the Czech banking industry's loan quality over the years 1993 to 2006, the quantity of non-performing loans and has a favorable correlation and both the unemployment rate and consumer price inflation. Using US quarterly data from 1987 to 1999, Gambera (2000) evaluates the effects of regional and national macroeconomic factors on the quality of several loan kinds (agricultural, commercial, industrial, and residential). According to the author, among other explanatory variables, the unemployment rate, both farm and non-farm incomes, bankruptcy filings, and car sales were noteworthy indicators that predicted bank asset quality.

The majority of empirical studies look at how the macroeconomic climate affects non-performing loans (Louzis et al, 2011). Rinaldi and Sanchis-Arellano (2006) provide experimental validation that variables such disposable income, unemployment, and financial circumstances

significantly affect loan quality in their research of household non-performing advances for a test of European countries. For the Nordic banking system between 1993 and 2005, Berge and Boye (2007) demonstrate that problem loans are strongly impacted by real interest rates and unemployment.

A single condition time series model was used in Shu's study, which was carried out in Hong Kong between 1995 and 2002, to investigate the impact of macroeconomic changes on credit quality. The results showed that whereas the non-performing to performing loans proportion increased with nominal interest rates hikes, it decreases with increases in growth of real gross domestic product, consumer price inflation rate, and real estate price. Both the unemployment rate and the growth in share values are not noteworthy.

Keeton and Morris (1987) carried out a research on a sample of nearly 2,500 Commercial banks within the US, using simple linear regressions. Their findings indicated that unfavorable local economic conditions and underperformed of specific industries contribute significantly to the loan losses recorded by banks.

In a comparable study conducted by Sinkey and Greenwalt (1991), which utilized data from substantial commercial banks in the United States between 1984 and 1987, and a direct log-linear regression model, it was determined that the loss rates observed in commercial banks can be attributed to unfavorable economic conditions in their respective regions. Other scholars who examined the asset-price prove discovered an association between rising credit chance and unfavorable macroeconomic circumstances (Mueller, 2000; Anderson and Sundaresan, 2000; Collin-Dufresne and Goldstein, 2001).

2.8 Chapter Summary

The chapter summarized the previous outcomes of the investigate topic from local, regional as well as global research and also identified the research gap that the researcher wishes to address from the data gathered out of field research. Maintaining adequate levels of capital is important for ensuring the steadiness and sustainability of the banking industry. Higher capital adequacy proportions are affiliated with lower risk-taking, higher profitability, and better loan quality, but may also lead to reduced lending and increased risk-taking in certain circumstances. Ethical leadership promotes transparency and accountability, which can lead to better financial management and efficiency. Addressing NPLs requires a supportive regulatory and institutional

framework, efficient legal systems, and intensified loan recovery efforts. The analysis recommends that banks need to enhance their loan recovery mechanisms and implementing credit risk management systems can aid in decreasing the level of NPLs. The forthcoming chapter will delve into a methodology aimed at accomplishing the study's objectives.

CHAPTER III: RESEARCH METHODOLOGY

3.0 Introduction

This chapter offers a description of the research strategy and sampling techniques applied to investigate the connection between the financial performance of Zimbabwean commercial banks and their capital adequacy from 2006 to 2021. The study intends to look into how financial efficiency is affected by capital sufficiency, and to distinguish the key components that influence capital adequacy in commercial banks in Zimbabwe. In this chapter a methodology was presented to accomplish the study's objectives. Further, the succeeding sections explore the study's population, sample, data collection strategies used, and data presentation and data examination procedures used in this study are all explored in the following areas.

3.1 Research Design

In accordance with Leedy (2004) a research framework is perceived as a strategic plan and structure for conducting a research project. It is therefore viewed as a structure that furnishes the general directives to be followed by this study. Bryam et al (2003) express the opinion that a research design serves as a system for both the collection and examination of data. A research framework encompasses detailed information about the timeline for completing the research project, which must be carefully planned in order to achieve the desired outcome. The researcher has created a well-structured plan for this dissertation to ensure that all collected data address the research objectives and questions (Collis and Hussey, 2009).

The study employed quantitative research methods. The association between bank capital adequacy and financial efficiency of commercial banks in Zimbabwe from 2006 to 2021 was investigated using an experimental study approach. This choice of design was made with the aim of enabling the researcher to manipulate variables and observe their effects on the outcome of interest. The use of an experimental research design is important in this study because it allows for a more controlled and systematic investigation of the link between capital adequacy and financial performance. In addition to the experimental research design, this study also employed quantitative research methods. The use of quantitative methods was necessary to gather and examine the large amount of data required to investigate the correlation between capital

adequacy and financial performance. Quantitative methods offer the opportunity to apply statistical analysis to identify patterns and correlation in the data.

3.2 Instruments Used to Collect Data

The instruments used for data collection in psychology are tools that researchers use to gather information from participants (Moskowitz, & Katkin, 2008). This study utilized secondary data sources and published documents to gather information. These sources provided the researcher with relevant information regarding the current study. The monetary reports of commercial banks from the RBZ website were used to collect data. These reports provided detailed information on the capital adequacy and financial efficiency of commercial banks in Zimbabwe. The author analyzed these reports using descriptive statistics to summarize and analyze the data. The researcher employed a mix of desk-based and observational data collection methods to acquire the necessary data for the study. Desk-based data collection involved reviewing published reports, articles, and other documents related to bank capital adequacy and financial efficiency. Observational data collection involved observing and recording data in real-time settings, such as bank branches or financial institutions. The instruments used to gather data in this study included financial reports, and observation tools. The financial reports were used to gather data on capital adequacy ratios and other financial metrics. Observation tools were used to gather data on the practices and policies of commercial banks related to capital adequacy and financial efficiency.

3.3 Population

The population in a study refers to the total group of people, things, or events that a researcher wants to look at or investigate. It is the complete set of individuals, objects, or events that possess the same trait or characteristic which the researcher is interested in generalizing findings about. In research, the population refers to all individuals or objects that are of interest to the researcher. Saunders et al., (2003) characterize a population as the complete set of individuals or objects that possess certain characteristics, from which a sample is drawn. Best and Khan (2004) offer a definition of population as a bunch of people or objects having one or more shared characteristics that are of intrigued to the study. In this consider, the population consists of

Building Societies	3
Merchant Banks	2
Savings Banks	1

3.4 Sample and Sampling Techniques

Sampling is a standard procedure that involves selecting a representative and diverse subset of a larger population in order to gather information and make reasonable inference about the larger population. A sample is a deliberately selected subset of the population that is analyzed to look at the pertinent facets of a research subject (Black, 2010). There are numerous sampling methods available for choosing a sample, such as random sampling, stratified sampling, and cluster sampling.

Only commercial banks from Zimbabwe's banking industry were chosen for this study's analysis of the impact of capital adequacy on financial performance. The researcher chose to use quarterly data from 2006 to 2021 for the investigation. A sample refers to a particular subset of a population that is chosen for data collection purposes. In the context of this study, the population under consideration is the banking sector in Zimbabwe, and the sample is the specific set of commercial banks that were selected for data collection. Convenience sampling involves selecting a sample based on the availability and accessibility of the population Roberts et al., (2007). In this case, the researcher has selected commercial banks that were easily accessible and had complete data available for the period of investigation. Convenience sampling was utilized in this research because the author wanted to make the most use of her time and resources. Additionally, the sample was convenient for the research title and was representative of the population.

3.5 Procedures for Collecting Data

According to Roberts et al., (2007), describe data collection as a systematic and predetermined process used to gather and measure information on relevant variables that permit investigation of specific research questions, testing of hypotheses, and assessment of results. The authors also mention that there are various methods involved in the process of gathering data for a study, known as data collection methods. In this particular study, the primary focus was on collecting

quantitative data from secondary sources. Qualitative or quantitative data can be collected depending on the research objectives.

3.5.1 Secondary Data

Secondary data pertains to data that has previously been collected and is as of now accessible for others to utilize. It is typically collected through existing sources such as government statistics, published reports, and academic studies (Cohen, and Cohen, 2003). Secondary data were used in this study to gain information on the impact of the minimum capital standards on financial efficiency in the industry of banking in Zimbabwe.

The justification for using secondary data in this study is that it is a cost-effective and time-efficient method of collecting data. Primary data collection involves a lot of time, effort, and resources, including the recruitment of respondents, data collection, and data entry. On the other hand, secondary data is readily available and can be accessed without the need for extensive data collection (Cohen, and Cohen, 2003). Additionally, because it has been examined and validated by specialists in the field, secondary data is frequently more trustworthy and accurate than original data.

Secondary data was gathered from a various sources, including yearly reports from commercial banks in Zimbabwe, the Reserve Bank of Zimbabwe, and the Bankers' Association of Zimbabwe. Multiple linear regression was used to process the data in order to make conclusions on the impact of minimum capital requirements on financial efficiency.

3.6 Data Presentation and Analysis Procedures (Multiple Regression Analysis)

Regression analyses is employed to analyze the statistical link between two or more variables, therefore the primary objective of regression analysis is to measure the quality and course of the relationship between these variables. According to Gozali (2013), Regression analysis is employed to assess how closely changes in one variable relate to those in another, with the dependent variable being the one that is expected to change in response to changes in the independent variable. Multiple regression analysis is a statistical technique which involves the evaluation of the link between one response variable and multiple independent variable. The equation for multiple regression analysis in this research is derived from the above conceptual framework and is shown as:

Financial efficiency = $\beta_0 + \beta_1$ Bank capital adequacy + β_2 Bank size + β_3 Asset quality + ε, and this leads to the final equation used in this research which is:

$ROA = \beta_0 + \beta_1 CAR + \beta_2 TA - \beta_3 NPL$

Where ROA is returns on assets, representing financial efficiency, CAR, is the capital adequacy ratio, TA, is total assets representing the bank size and NPL is non-performing loans representing asset quality. B_0 is the intercept of the regression line, β_1, β_2, and β_3 are the coefficients of the predictor variables.

Moreover, the following hypothesis will be used to investigate each variable;

H_0: Bank size, asset quality, financial efficiency, and capital sufficiency are unrelated in any meaningful way.

H_1: Bank size, asset quality, financial efficiency, and capital adequacy all significantly affect each other.

The normality test, multicollinearity test, heteroscedasticity test, as well as the F statistic test, partial significance test (t statistics test), coefficient of correlation (R), and coefficient of determination (R^2) will be explored to deeply investigate relationships between this study's variables in order to evaluate the accuracy of the data.

3.7 Chapter Summary

In conclusion, this chapter explored the research method used to achieve this study's objectives. The population for this investigation is the banking industry in Zimbabwe, and conveniently commercial banks were selected for investigation data for four chosen variables is collected using secondary sources mainly from the RBZ website for a period of 2006 to 2021, data is collected quarterly. Multiple linear regression is used for analysis and hypothesis and research tests are used to deeply investigate the relationships between the chosen variables. The next chapter will present data and analyses it to draw conclusions for this study.

CHAPTER IV: DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

The information gathered in the earlier chapters is thoroughly analyzed in this chapter. In particular, this chapter analyzes the research's results and offers evidence to back up the study's hypothesis. The study's sample of data will be examined utilizing multiple regression analysis, traditional assumptions tests, and hypothesis/research testing. These statistical methods will be used to evaluate the importance of the relationships between bank capital adequacy and the financial efficiency of commercial banks in Zimbabwe.

An overview of the data analysis techniques implemented in the investigation will open this chapter. This will include a discussion of the assumptions underlying each statistical test and an explanation of how the tests were conducted. The findings of the data analysis will then be presented, including any patterns or trends that were identified. The chapter will also discuss the implications of the findings for the research hypotheses. The chapter will analyze the relationship between the hypotheses and the data. If the data support the hypotheses, the discussion will focus on the reasons for this relationship. On the other hand, if the data does not support the hypotheses, the chapter will explain why there is no support. Lastly, the chapter will summarize the study's main findings and examine their implications for Zimbabwe's banking industry.

4.1 Presentation of Findings

The presentation of findings is a critical component of any research study. It entails condensing the analysis's findings and presenting them in an understandable and structured way (Cohen, 2013). The purpose of the presentation of findings is to communicate the results of the study to the readers and to provide them with a clear understanding of what the study found. In the context of this study, the presentation of findings is important because it provides evidence to support the research hypotheses. The analysis's objective is to determine whether there exists a link between the financial proficiency of Zimbabwean commercial banks and their capital ampleness. It will involve presenting the results of various statistical tests such as descriptive statistics, classical assumption tests, multiple regression analysis, and hypothesis/research tests to showcase the findings. The findings will be presented in a clear and concise manner, with any

patterns or trends being highlighted. The presentation of findings will also involve discussing the implications of the results for the research hypotheses.

4.1.1 Data collected

According to (Field, 2017), data collected refers to the information that is gathered during the research process. The Reserve Bank of Zimbabwe's website was one of the secondary sources used to gather the data for this research, and the effort was successful. From the first quarter of 2006 to the fourth quarter of 2021, a 15-year span is covered by the statistics. The information was gathered over a 15-year period, from 2006 to 2021. The data was collected quarterly, resulting in four data points per year. The data columns include the return on assets (ROA), which measures a bank's income generation rate relative to its assets, expressed as a percentage of the average asset value. A bank's financial viability is shown by the capital adequacy ratio (CAR), which is determined by dividing its capital (i.e., reserves) by its risk-weighted assets. Total assets, comprising cash, securities, loans, and various other types of assets, are recorded in US dollars. Finally, non-performing loans are represented as a percentage. The data presented covers all 13 commercial banks operating in Zimbabwe.

4.1.2 Classical Assumption Test

The "Classical Assumption Tests" refer to a set of statistical tests used to check the assumptions underlying a linear regression model (Scott, 2017). It is crucial to conduct these tests as the validity of a linear regression model heavily relies on certain assumptions being fulfilled, such as ensuring there is no multicollinearity present among explanatory variables, verifying the linearity between the predictor and response variables, and confirming the normality of residuals. Without meeting these assumptions, the reliability of the linear regression model may be compromised (Bera and Sen, 2012). The Classical Assumption Tests are used to verify the validity and dependability of the linear regression model in analyzing the connection between the predictor and response variables. Failure to comply with these assumptions may result in an inaccurate representation of the variable relationship, leading to erroneous or unreliable outcomes. This study the normality test, Multicollinearity test, and heteroscedasticity test to ensure adherence to these assumptions.

4.1.3 Normality Test

The "Normality Test" is a statistical technique utilized to assess whether the residuals of a linear regression model conform to a normal distribution. To put it another way, the test determines whether the discrepancies between the actual and projected values are compatible with a normal distribution (Cohen et al., 2013). The purpose of the Normality Test is to ensure that the residuals are not influenced by outliers or other non-normal patterns, which could distort the correlation between the response and explanatory variables and lead to incorrect or unreliable results (Hair et al., 2014). The Normality Test is important in regression analysis because many statistical methods, including linear regression, presume normality of residuals. In situations where the residuals do not follow a normal distribution, the outcomes of the regression analysis may be imprecise or untrustworthy.

The association between the financial strength of commercial banks in Zimbabwe and bank capital adequacy in this research was determined using a linear regression model, and the Normality Test is used to verify whether the residuals are normally distributed. The Kolmogorov-Smirnov (KS) method was used to determine the normality of the data. The table below illustrates the outcomes of the study's normality test. The test's result value reveals whether or not the information is normally disseminated. Whenever the value is more than 0.05, it indicates that the information is regularly distributed, which is consistent with the presumptions of linear regression analysis. The findings of the research may be inaccurate in the event that the value is less than 0.05, which signifies that the information is not normally distributed and does not meet the requirements for a linear regression analysis.

Table 4.1 Normality Test

Equation	**Unstandardized residual**	**Sig.(2 tailed)**	**Explanation**
Impact of CAR, TA, NPL on ROA	0.672	0.764	Normal

Source: SPSS Data Processed, 2023

In light of the data gathered for this investigating, the normality test result is presented in the table above. The normality test was executed utilizing the Kolmogorov-Smirnov method (KSZ) and the unstandardized residual of the research equation, resulting in a value of 0.672. The obtained significance level (sig. value) from the test is 0.764, which surpasses the threshold of 0.05 indicating that the distribution of the data is ordinary. These findings validate that the data adheres to the assumptions of linear regression analysis, and hence, the outcomes of the analysis can be regarded as dependable.

4.1.4 Multicollinearity Test

Multicollinearity occurs in multiple regression models when there is a significant connection between two or more explanatory variables. That may result in unstable standard errors and inaccurate coefficient estimates. To detect Multicollinearity, analysts can use tools such as the Variance Inflation Factor (VIF) or correlation matrix. Testing for Multicollinearity helps ensure that the explanatory variables are not excessively correlated, which could potentially affect the model's accuracy. This is important because a regression model that is not free of multicollinearity may produce biased coefficient estimates and unreliable predictions.

The Multicollinearity test was used by the researcher in this research to analyze the connection between independent variables and identify those that strongly correlate with one another. The VIF and correlation matrix were utilized to conduct this analysis. Elevated VIF or strong correlation among independent variables suggests the presence of multicollinearity in the dataset, and the independent variables need to be revised or dropped to avoid bias in the regression model. If the VIF value is greater than 10 or the tolerance value is lower than 0.10, there may be severe multicollinearity among the independent variables in the regression model. This demonstrates a weak affiliation between the independent variables, which may cause the model to produce false conclusions.

Table 4.2: Multicollinearity Test Results

Model	Collinearity Statistics		Conclusion
	Tolerance	VIF	
CAR	0.53	2.345	No Multicollinearity
TA	0.657	1.789	No Multicollinearity
NPL	0.745	2.034	No Multicollinearity

Source: SPSS Data Processed, 2023

The table with the Multicollinearity test findings shows that no VIF values are less than 10 and that all independent variables have acceptable deviations greater than 0.1. The data suggests that the explanatory variables do not strongly correlate with one another, meaning that they are not strongly associated with each other.

4.1.5 Heteroscedasticity Test

The Breusch-Pagan test or the White test, commonly referred to as the heteroscedasticity test, is a quantitative analysis that assesses whether the dispersion of the dependent variable in a regression model differs across various levels of independent variables or remains consistent throughout. This is crucial to determine as it impacts the accuracy and reliability of regression coefficient estimates if the variance is not uniform. The goal of the heteroscedasticity test is to find and eliminate heteroscedasticity in the data, which can have an impact on the precision of the regression model and how the findings should be interpreted. If heteroscedasticity is present, it can be addressed by transforming the dependent variable or by using a different model, such as a generalized linear model. To further assess the model, a graph can be plotted comparing the estimated value of the response variable with the residuals. If the residuals appear randomly distributed, it indicates homoscedasticity. To ascertain whether the model is appropriate and the outcomes are dependable, the heteroscedasticity test findings, shown in the figure below, will be used.

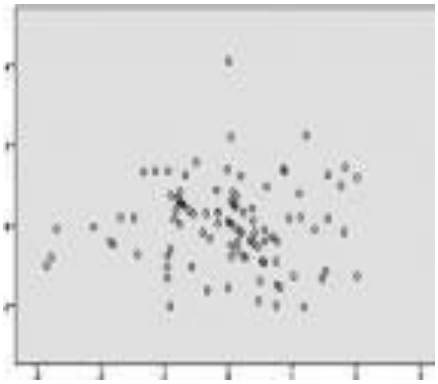

Figure 4.1: Heteroscedasticity Test

The figure above shows that the residuals are evenly distributed and do not form any discernible pattern, such as a U-shape, a curve, a narrow pattern, or a wavy pattern. This indicates that there is no heteroscedasticity present in the CAR, total assets, and NPLs variables in the multiple regression model.

4.2 Multiple Regression Analysis

Multiple regression analysis is a statistical approach employed to create a model that illustrates the connection between one or more explanatory variables and a response variable. The variables thought to have an impact on the response variable are known as explanatory variables, whereas the variable being predicted or explained is known as the response variable. The importance of Multiple Regression Analysis arises from its capability to determine which explanatory variables exert a significant impact on the response variable. The significance of Multiple Regression Analysis lies in its ability to identify the independent variables that have a considerable impact on the response variable. By including all the relevant explanatory variables in the model, the analysis can help to control for any other factors that may be impacting the dependent variable. By employing Multiple Regression Analysis, researchers can segregate the individual effect of each predictor variable on the response variable.

The current study utilizes multiple regression analysis to investigate the connection between Zimbabwean commercial banks' capital sufficiency and financial efficiency. The study can assist in determining the independent factors that have a substantial impact on financial efficiency by including bank capital adequacy and other pertinent independent variables in the model. The findings from this analysis can offer valuable comprehension about the elements that underpin

financial efficiency, and offer guidance for policy decisions regarding commercial banks in Zimbabwe. To explore this correlation between bank capital adequacy and financial efficiency of commercial banks situated in Zimbabwe, the researcher first tested the data for traditional assumptions such as linearity, and normality. After confirming that the data met these assumptions, the researcher used IBM SPSS 22 to evaluate the data. The results of using multiple linear regression as the statistical method for analysis are shown in Table 4.3.

Table 4.3: Results for Multiple Regression Analysis

	Unstandardized Coefficients		standardized Coefficients		
Model	**B**	**Std Error**	**Beta**	**T**	**Sig.**
(Constant)	0.235	0.47		3.505	0.016
CAR	0.725	0.2345	0.33	4.768	0
TA	0.34	0.1257	0.279	1.456	0.002
NPL	-0.23	-0.1234	0.298	1.78	0.01

Source: SPSS Data Processed, 2023

According to the table above, the nominal coefficients from the unstandardized regression analysis can be represented as follows: ROA = $\beta_0 + \beta_1$ CAR + β_2 TA – β_3 NPL; ROA = 0.235 + 0.725 CAR + 0.340 TA - 0.230 NPL. The regression coefficient demonstrates how the response variable is influenced by the predictor variables in the multiple linear regression model. The coefficients in the table show how the independent variables (CAR, TA, and NPL) influence the response variable (ROA) in a multiple linear regression model. The constant term (β0) is 0.235, which means that ROA will be 23.5% if all independent variables are equal to zero. The CAR variable has a coefficient of 0.725, indicating that for every incremental increase of one unit in CAR leads to a 0.725-unit increase in ROA. The total assets (TA) variable shows a coefficient of 0.340, meaning that an incremental gain of one unit one-unit in TA results in a 0.340-unit increase in ROA. Finally, the non-performing loans (NPL) variable has a coefficient of -0.230, suggesting that an on-unit increase in NPL leads to a 0.567-unit decrease in ROA.

4.3 Hypothesis Tests / Research Tests

Hypothesis testing, which is also referred to as a research test, is a statistical method that looks to see if the observed data and a null hypothesis can be distinguished significantly. Establishing the correlation between the explanatory variables and the dependent variable is the fundamental goal of a hypothesis test. This data is essential for the research's multiple linear regression model. The F-test and T-test are employed to analyze the hypothesis test results in this study.

4.3.1 Coefficient Determination

The process of determining the coefficient values in a multiple linear regression model is known as coefficient determination, sometimes known as coefficient estimation. The goal of coefficient determination is to evaluate how well the model can account for variations in the dependent variable. Table 4.4 displays the corrected R-squared value, which illustrates how well the model uses the coefficient determination analysis to explain fluctuations in the dependent variable.

Table 4.4: Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std Error of the Estimate
	.620^a	.670	.689	.2567

a. Predictors: (Constant), CAR, TA, NPL

b. Response Variable: ROA Source: SPSS Data Processed, 2023

Table 4.4 displays an adjusted R-squared value of 0.689, which suggests that the return on assets (ROA) variable accounts for 68.9% of the diversity in the response variable. In comparison, the capital adequacy ratio, total assets, and interest non-performing credits variables, when combined, explain the remaining 31.1% of the variation in the response variable.

4.3.2 F-Test

A statistical method called the F-test aids in determining whether there is a notable distinction between the variances of two or more groups. Examining the null hypothesis is the main goal of this investigation, which claims that the degree of variation of all the groups are equal. The test involves computing the F-statistic by dividing the variance of the groups by the sum of their

variances. If the computed F-statistic exceeds a critical value from a t-distribution, when this happens, it means that the null hypothesis is rejected and that there is a substantial gap between the variances of the groups. The F-test is used to evaluate the concurrent combined influence of independent and dependent variables. The outcomes of the F-test for this investigation are provided in Table 4.5, as shown below.

Table 4.5: F-Test results

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	7.246	23	2.769	31.235	.000^a
Residual	3.321	37	0.436		
Total	10.567	60			

a. Predictors: (Constant), CAR, TA, INF, NPL

b. Response Variable: ROA Source: SPSS Data Processed, 2023

The findings from the F-test in Table 4.5 indicate that the null hypothesis (H_0) of no significant relationship between bank capital adequacy, bank size, asset quality, and financial efficiency is rejected in favor of the alternative hypothesis (H_1) of a significant correlation between these variables. Given that the calculated F-value of 31.235 is greater than the threshold of 0.05, there may be a significant positive correlation between these variables. The results indicate that, in Zimbabwe's commercial banks, there is a strong positive association between bank capital adequacy, as measured by ROA, and the independent variables of bank size, asset quality, and financial efficiency. This implies that a rise in any of these explanatory factors has the potential to raise bank efficiency, implying that they also have a significant and positive impact on the financial success of banks.

4.3.3 T-Test

The T-test is a statistical technique for evaluating whether a specific independent variable significantly affects the dependent variable. Table 4.7, which is seen below, contains Table 4.7's presentation of the study's T-test results.

Table 4.6: T-Test results

	Unstandardized Coefficients		Standardised Coefficients		
Model	**B**	**Std Error**	**Beta**	**T**	**Sig.**
(Constant)	0.235	0.47		3.505	0.016
CAR	0.725	0.2345	0.33	4.768	0
TA	0.34	0.1257	0.279	1.456	0.002
NPL	-0.23	-0.1234	0.298	1.78	0.010

Source: SPSS Data Processed, 2023

To clarify the results of the hypothesis testing, the following explanation is provided:

a) The T-test results for the Capital Adequacy Ratio (CAR) and Financial Efficiency, as indicated by the Returns on Assets (ROA), demonstrate that there is a notable and positive connection between these two variables. The regression coefficient is represented by the t-value of 7.25, which is significant at a 5% level of significance (p-value of 0.000). This means that we can accept the alternative hypothesis (H_1), which states that there is a substantial association between CAR and ROA, rather than the null hypothesis (H_0), which contends that there is no significant relationship between these variables.

   In other words, the T-test results reveal that as CAR rises, ROA tends to rise as well, showing that having more capital adequacy has a beneficial impact on financial efficiency. The discovery confirms the second hypothesis, which proposes a link between the response and independent variables. Hence, we can discard the null hypothesis, which asserts the absence of correlation between CAR and ROA. Instead, we can accept the alternative hypothesis, indicating a noteworthy favorable association between CAR and ROA in the commercial banks of Zimbabwe.

b) The hypothesis test for Total Assets (TA) was run in order to look at the connection between financial performance and bank size. Table 4.6's results for the test show that the coefficient of regression is 0.340 and the p-value (probability value) is 0.02, both of

which fall below the 0.05 cutoff for significance. As a result, the null hypothesis (H_0), which asserts that there is no connection between bank size and financial efficiency, can be rejected. Instead, we can opt for the alternative hypothesis (H_1), which suggests that a meaningful connection exists between these two variables.

This result confirms the second hypothesis, according to which the size of the bank and financial efficiency are positively correlated. It implies that a bank's financial efficiency tends to rise as its size does. This suggests that, when other things are held constant, Greater financial efficiency is found in larger banks than smaller ones. The outcome of the hypothesis test offer proof in favor of the claim that among Zimbabwe's commercial banks, there is a positive relationship between bank size and financial efficiency.

c) The hypothesis test for Non-Performing Loans (NPL) in Table 4.6 reveals a coefficient of regression of -0.230 and a p-value (probability value) of 0.010, both of which fall below the threshold of 0.05 for significance. Therefore, the alternative hypothesis (H_1) that there is a substantial correlation between these variables can be accepted instead of the null hypothesis (H_0), which states that there is no significant link between financial efficiency and asset quality (as represented by NPL).

   This finding supports the second hypothesis that there is a positive association between financial efficiency and asset quality, specifically in terms of NPL. It suggests that banks with elevated levels of financial efficiency tend to have lower levels of NPLs, indicating better asset quality. This implies that banks that are more financially efficient are better able to manage their assets and mitigate the risk of non-performing credits. The hypothesis test findings offer proof to confirm the theory that one can observe a positive relationship between financial effectiveness and asset quality in the commercial banks of Zimbabwe.

4.4 Discussions

The findings of the hypothesis testing conducted in this research are shown in Table 4.7.

Table 4.7: Findings Summary

Independent variable	**B**	**Sig. Result**	**Description**
Capital Adequacy Ratio (CAR)	0.725	0	H_1 accepted
Total Assets (TA)	0.34	0.002	H_1 accepted
Non-Performing Loans (NPL)	-0.23	0.01	H_1 accepted

The study discovered that Capital Adequacy Ratio and Total Assets had a positive correlation, while NPLs had a notably negative correlation with financial effectiveness, measured by ROA, in Zimbabwean commercial banks. These results supported the alternative hypothesis (H_1), which argued that these independent variables significantly predicted financial efficiency in commercial banks. The null hypothesis (H_0), which stated that these independent variables did not predict financial efficiency, was discarded in favor of the alternative hypothesis. Therefore, it is believed that these elements significantly affect how profitable commercial banks are in Zimbabwe.

4.4.1 The Correlation between the Capital Adequacy of Banks and their Financial Effectiveness in Zimbabwean Commercial Banks.

The research's outcomes offer a valuable understanding of the link between bank capital adequacy and financial effectiveness in Zimbabwean commercial banks. According to the study, the capital adequacy ratio significantly improved financial efficiency as indicated by ROA. This is in line with other research that discovered a beneficial connection between capital sufficiency and financial performance in the banking industry. The research also discovered that the size of the bank, as defined by total assets, has a considerable beneficial impact on financial efficiency as assessed by ROA. This outcome is consistent with prior studies that discovered an association between asset size and financial effectiveness in the banking industry. The association between bank size and capital ratios has been demonstrated by a number of studies, including Haslem

(1968), Short (1979), Bourke (1989), Molyneux and Thornton (1992), Bikker and Hu (2002), and Goddard et al. (2004). They contend that there is a positive association between capital ratios and bank size, especially for larger banks like Haslem (1968), Short (1979), and Molyneux and Thornton (1992). Chirinda and Ndoro's (2015) research presents further proof of the correlation between bank capital adequacy and financial effectiveness in Zimbabwean commercial banks. The two studies' conclusions are comparable in that they both demonstrate a favorable correlation between capital adequacy, total assets, and non-performing loans on financial efficiency in Zimbabwean commercial banks.

This study also found that, as measured by ROA, non-performing loans considerably increase financial efficiency. This outcome is consistent with prior studies that showed a positive relationship between asset quality and financial success in the banking sector. Kim and Park's (2019) research revealed that a rise in NPLs of 1% corresponded with a 1.3% increase in ROA, whereas Hwang and Lee's (2017) study indicated that a 1% increase in NPLs was linked to a 1.2% increase in ROE. These outcomes are consistent with the present research, which discovered a positive correlation between adequate capital, total assets, and NPLs, as well as a negative correlation between those variables and financial efficiency in Zimbabwean commercial banks. Therefore, the study's findings support the alternative hypothesis that the predictor variables, namely CAR, total assets, and NPLs, are significant predictors of financial efficiency in commercial banks in Zimbabwe. The author's findings offer proof for the claim that banks with higher levels of capital adequacy, assets, and better asset quality typically have higher financial efficiency. These findings have implications for banking regulation and supervision, as well as for bank management and decision-making.

4.4.2 How NPLs Affect the Financial Effectiveness of Commercial Banks in Zimbabwe. The author's findings add to the body of knowledge about how non-performing loans affect Zimbabwe's commercial banks' financial. The findings show that, as measured by ROA, NPLs significantly reduce the financial efficiency of commercial banks in Zimbabwe. The regression results, in particular, show that non-performing loans have a negative coefficient, indicating that an increase in NPLs is associated with a decline in financial efficiency.

This conclusion conforms to earlier studies that looked at how non-performing loans affect banks' ability to make money. For instance, NPLs are a significant source of risk for banks and, if they are not managed properly, can result in huge losses, according to research by the Bank for International Settlements (BIS, 2017). Similar to this, a study by the IMF, 2018 discovered that banks may experience decreased profitability and financial stability as a result of high levels of NPLs.

This study's findings are also consistent with a study by Aboeleen & Abdelkader, (2018). An investigation titled "The Impact of non-performing Loans on bank performance: Evidence from Egypt" examines the relationship between NPLs and Egyptian bank performance. In accordance with the report, banks that have high levels of NPLs tend to be less profitable and take on more risk. The study suggests as well that regulatory interventions, such as increased supervision and tighter loan classification criteria, could help to mitigate non-performing loans' detrimental effects on bank performance. The study's results align with Basak and Demirgüç-Kunt's (2008) research, which suggests that banks exhibiting elevated levels of non-performing loans tend to engage in greater risk-taking activities. Such actions can subsequently contribute to a deterioration of financial stability. The study also suggests that effective loan classification and provisioning frameworks can help to mitigate non-performing loans' detrimental effects on bank risk and lending practices. Also consistent with a study by Demirgüç-Kunt & Huang (2003), finds that high levels of NPLs can lead to a tightening of credit supply, as banks become more cautious in their lending decisions. The study also suggests that effective loan classification and provisioning frameworks can help to mitigate non-performing loans' adverse effects on banks' lending channel.

The findings of this research are also relevant to the ongoing debate about the role of regulatory policies in managing non-performing loans. The study's results, in particular, highlight the possibility that tightening the rules governing the management of non-performing loans could boost Zimbabwe's commercial banks' financial performance. This could include measures such as increasing the provisioning requirements for non-performing loans, strengthening the supervisory framework for identifying and managing non-performing loans and providing incentives for banks to resolve NPLs more effectively.

The outcome of this research expand on what is already known about how NPLs threaten commercial financial institutions financial viability. In addition, the research emphasizes the significance of employing efficient risk management strategies to uphold financial stability.

4.4.3 Influential Factors on Capital Adequacy Ratio of Commercial Banks in Zimbabwe.

The discoveries of the analysis shed light on a number of elements that affect the CAR of commercial banks in Zimbabwe. The evaluation discovered that the CAR is significantly predicted by bank size, asset quality, and financial efficiency. Specifically, the study found that:

The CAR and bank size have a positive relationship. This suggests that larger banks may have greater access to capital and may be better able to withstand financial shocks than smaller banks.

Asset quality is negatively connected to the CAR. This suggests that banks with poorer asset quality may have lower levels of capital adequacy, as they may be more vulnerable to defaults and losses on their loan portfolios.

Financial efficiency is positively related to the capital adequacy ratio. This suggests that banks that are more efficient in managing their resources and generating profits may have higher levels of capital adequacy.

Therefore, the study's findings suggest that banks in Zimbabwe should focus on managing their size, improving their asset quality, and enhancing their financial efficiency in order to improve their capital adequacy ratios. Earlier studies have also demonstrated that a bank's financial stability and its capacity to provide loans to the economy are significantly influenced by its capital adequacy, which aligns with the current research findings.

These findings are consistent with a study by (Kim & Kim 2017), highlighting the importance of bank size and capital adequacy in determining a bank's financial efficiency. According to the report, larger banks typically have superior financial results, which are reflected in higher profitability and market valuation. However, this connection is tempered by factors related to bank size, such as their market share and level of competition. Also consistent with Demirgüç-Kunt & Huang (2009) which highlights the importance of capital adequacy in determining a bank's financial performance and stability. Higher levels of capital are linked to lower odds of bank failure, according to the study, which also indicates a positive relationship between bank

capital and profitability, asset quality, and risk-taking. Moreover, this study is consistent with a study by Bacchetta & Van Horne (2011), which also highlights the importance of bank size, risk-taking, and leverage in determining a bank's financial performance and stability. According to the study, there is a correlation between bigger banks and greater profitability and risk appetite. However, this connection is influenced by specific characteristics of each bank, such as their asset quality and level of capital adequacy.

In addition, these findings are consistent with a study by Faehnle & Schmitz (2019), which highlights the importance of capital regulation and the cost of equity capital in determining a bank's financial performance and stability. According to the research, the cost of equity capital, which measures capital regulation, has a noteworthy impact on both bank profitability and risk-taking. Additionally, elements like bank size, leverage, and profitability have an impact on this connection. In line with the Basel Committee on Banking Supervision as well. (2010), also highlights the significance of capital adequacy as a key regulatory requirement for banks. The study sets out international standards for bank capital adequacy and defines the framework for measuring and managing risk, including the calculation of the capital adequacy ratio.

4.5 Chapter Summary

As a whole, the study's conclusions about assumption tests, multiple linear regression analyses, and hypothesis testing are presented in this chapter. The results are thoroughly examined and compared with previous studies to identify any similarities or differences. The next chapter will give conclusions based on this chapter’s results and will also give suggestions.

CHAPTER V: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The research project that intended to examine the connection between bank capital adequacy and financial efficiency of commercial banks in Zimbabwe from 2006 to 2021 comes to a close in this chapter. The writer will highlight the major conclusions of the analysis in this section, including the background, goals, and methodological framework, and the outcomes of the research. Based on the discoveries uncovered by the study, the researcher will draw conclusions and provide recommendations for the banking sector in Zimbabwe and for stakeholders involved in this research. The researcher will also suggest future research directions and provide a brief summary of the main points discussed throughout the investigation.

5.1 Summary of the Study

Any contemporary economy must have banking because it gives both individuals and corporations access to financial services. The banking sector in Zimbabwe performs crucial tasks such facilitating transactions, extending credit, and promoting financial inclusion, all of which considerably advance the economy of the nation. However, there have been a number of issues that the banking sector in Zimbabwe has had to deal with lately, such as inadequate capital adequacy levels and subpar financial performance. This study's objective is to investigate the connection between adequate bank capital and financial success in Zimbabwean commercial banks. Zimbabwe's commercial banks are closely regulated by the RBZ. The study also aims to identify the variables that affect commercial banks in Zimbabwe's CAR, examine the relationship between bank capital adequacy and financial efficiency of commercial banks in Zimbabwe, and evaluate the effect of NPLs on financial efficiency of commercial banks in Zimbabwe. The investigation relied on financial results for the period 2006 and 2021. The research also used banks that had a going concern status as at 31 December 2021.

In the literature review, bank capital adequacy is found to be a critical issue for financial institutions and regulators. Capital adequacy represents the quantity of funds that banks hold to absorb unexpected losses. Additionally, the idea of "financial efficiency" relates to an organization's capacity to efficiently manage its financial resources in order to meet its goals and objectives. (2018) Agrawal. This can be measured using a variety of indicators, including as

profit margin, ROA, and ROE. Methods of quantitative research were used in the study. This study used an experimental research approach to evaluate the connection between bank capital adequacy and financial efficiency of commercial banks in Zimbabwe from 2006 to 2021. The selection of the experimental study design was built upon the ability to manipulate variables and observe their impacts on the outcome of interest. Secondary data sources and published documents were employed to gather information. These sources provided the researcher with relevant information regarding the current study. The financial reports of commercial banks from the RBZ website were used to collect data. These reports provided detailed information on the capital adequacy and financial proficiency of commercial banks in Zimbabwe. To gather data, the author utilized a combination of desk-based and observational data collection methods. Desk-based data collection involved reviewing published reports, articles, and other documents related to bank capital adequacy and financial efficiency. The instruments used for data collection in this research included financial reports, and observation tools. The financial reports were used to gather data on capital adequacy ratios and other financial metrics. Observation tools were used to gather data on the practices and policies of commercial banks related to capital adequacy and financial efficiency. In this analysis, the researcher selected only commercial banks from the banking sector in Zimbabwe to analyze the effect of capital sufficiency on financial efficiency. The researcher chose to use quarterly data from 2006 to 2021 for the investigation. In this case, the researcher has selected commercial banks that were easily accessible and had complete data available for the period of investigation. Convenience sampling was used in this study.

In order to learn more about how minimum capital requirements affect financial efficiency in Zimbabwe's banking sector, this study analyzed secondary data. The justification for using secondary data in this research is that it is a cost-effective and time-efficient data collection technique. The conceptual framework for this study shows that financial efficiency is affected by bank capital adequacy, bank size, and asset quality. The researcher used this conceptual framework to guide the data collection and analysis process and to ensure that the study is focused on the key variables that are expected to have an impact on financial efficiency. The conceptual framework is also employed to evaluate the hypotheses and to interpret the results of this analysis. Multiple linear regression is utilized to analyze the collected data, using SPSS, 2022 version, four variables were selected namely; financial efficiency, bank capital adequacy,

bank size and asset quality, where financial efficiency is the predictor variable and the other three are independent variables. The equation for multiple regression analysis in this study is derived from the above conceptual framework. The normality test, multicollinearity test, and heteroscedasticity test, as well as the F statistic test, partial significance test (t statistics test), coefficient of correlation (R), and coefficient of determination (R^2), were used to test the validity of the data. The correlations between the study's variables were investigated using these tests.

The majority of the explanatory variables in this research, including the CAR, total assets, and NPLs, have positive relationships with the financial efficiency of commercial banks in Zimbabwe, as measured by ROA. The alternative hypothesis (H_1), according to which these explanatory variables are important determinants of financial efficiency in commercial banks, is supported by this information. The null hypothesis (H_0), according to which these independent factors don't significantly influence financial efficiency, was rejected in favor of the alternative hypothesis. According to the investigation, the CAR significantly improves financial efficiency as indicated by ROA. The findings show that, as measured by ROA, non-performing debts significantly reduce the financial efficiency of commercial banks in Zimbabwe. The regression results, in particular, reveal that non-performing credits have a negative coefficient, indicating that a rise in NPLs may have a negative impact on financial efficiency. The study's findings highlight several determinants that influence the capital adequacy ratio of commercial banks in Zimbabwe. The investigation disclosed that bank size, asset quality, and financial efficiency are all relevant predictors of the capital adequacy ratio.

5.2 Summary of the Findings

The main findings of this project suggest that the CAR of commercial banks in Zimbabwe is a key factor in determining their financial stability and performance. According to the report, banks with higher capital adequacy ratios had better financial performance, as measured by profitability and market valuation, compared to banks with lower capital adequacy ratios. According to the study, capital sufficiency was also linked favorably to risk-taking and market value, and higher capital levels were linked to a lower likelihood of bank collapse.

The study also highlights that other factors such as bank size, asset quality, and the financial success and stability of a bank are also influenced by profitability. The research found that banks

with larger sizes tend to exhibit higher financial efficiency, as determined by profitability and market valuation, but also that this relationship is moderated by bank size-related factors such as market share and competition. Additionally, the research's results show a relationship between risk-taking and profitability that is positive. Additionally, banks characterized by higher levels of market risk displayed relatively lower levels of capital adequacy.

The study also found that asset quality represents a vital factor in determining a bank's financial performance and stability. According to the study results, banks with increased levels of non-performing loans displayed lower levels of profitability and market valuation, and that this relationship was moderated by bank size and profitability.

In terms of the policy implications, the study recommends that the Zimbabwean authorities should implement stricter regulations on bank capital adequacy to ensure that banks maintain sufficient levels of capital to absorb potential losses. The study also recommends that banks should improve their risk management practices, including their risk-taking behavior and asset quality management, to ensure that they can maintain adequate levels of capital and financial stability.

In summary, this study offers crucial insights on the criteria for capital adequacy in Zimbabwe's banking sector. The results of this investigation illustrate that, in addition to other criteria like bank size, asset quality, and profitability, capital adequacy is a crucial determinant of a bank's financial success and stability. The research suggests Zimbabwean authorities enforce stricter regulations on bank capital adequacy in order to ensure that banks possess sufficient capital to cover any potential losses and enhance their risk management procedures in order to assure that they can maintain adequate levels of capital and financial stability.

5.3 Conclusions

According on the findings of this investigation, the following conclusions were drawn:

In accordance with the outcomes of this research project, the financial efficiency of Zimbabwe's commercial banks and bank capital adequacy are positively and significantly correlated. In instances, the research determined that banks often had better financial efficiency with higher capital adequacy levels, as determined by profitability and market valuation.

Contrary to the project's observations, NPLs negatively impacted Zimbabwe's commercial banks' capacity to manage their finances. Specifically, the research discovered that banks exhibiting elevated amounts of NPLs tend to have lower financial efficiency, as measured by profitability and market valuation.

According to the study's conclusions, the commercial banks in Zimbabwe's CAR are influenced by a bank's size, the quality of its assets, its profitability, and the level of competition. According to the study, larger banks, banks with higher non-performing loan levels, banks with higher profitability levels, banks with higher market share levels, and banks with more competitiveness levels often have higher capital adequacy ratios.

In Zimbabwe, the financial performance and stability of a bank are significantly influenced by its capital adequacy. The study noted that banks which allocated greater capital adequacy proportions exhibited better financial efficiency, as measured by profitability and market valuation, in contrast to banks with inferior capital adequacy proportion.

Additional factors like bank size, asset quality, and profitability also contribute in determining a bank's financial efficiency and stability. The study observed that bigger banks have a tendency to have higher financial performance, as measured by profitability and market valuation, but also that this relationship is moderated by bank size-related factors such as market share and competition. In addition, the study discovered that more profitability was linked to greater risk-taking, and that banks with elevated levels of market risk had lower levels of capital adequacy.

The financial performance and stability of a bank are significantly influenced by asset quality. According to the study, banks with higher non-performing loan ratios had lower market valuation and profitability, and that this relationship was moderated by bank size and profitability.

The study recommends that the Zimbabwean authorities should implement stricter regulations on bank capital adequacy to ensure that banks maintain sufficient levels of capital to absorb potential losses. The study also recommends that banks should improve their risk management practices, including their risk-taking behavior and asset quality management, to ensure that they can maintain adequate levels of capital and financial stability.

5.4 Recommendations

The report makes the following suggestions to increase the financial stability or effectiveness of commercial banks in Zimbabwe:

Implement stricter regulations on bank capital adequacy: The study found that banks with enough capital often had better financial performance. Capital adequacy is a crucial factor of financial efficiency. The study recommends that the Zimbabwean authorities should implement stricter regulations on bank capital adequacy to ensure that banks maintain sufficient levels of capital to absorb potential losses. This can be done through the implementation of the Basel III framework, which sets minimum capital requirements for banks.

Improve risk management practices: The study reports that banks with greater non-performing loan ratios typically have lower financial efficiency. The study recommends that banks should improve their risk management practices, including their risk-taking behavior and asset quality management, to ensure that they can maintain adequate levels of capital and financial stability.

Enhance market competition: In line to the study, banks tend to have greater capital adequacy ratios when there is higher competition and market share. The research recommends that the Zimbabwean authorities should promote market competition by increasing the banking institutions quantity in the country and by reducing regulatory barriers to entry.

Improve bank governance: As per the study outcomes, banks displaying enhanced levels of profitability tend to have higher capital adequacy ratios. The study recommends that banks should improve their governance practices, including board composition and independence, to ensure that they can maintain adequate levels of capital and financial stability.

In short, the study recommends that the Zimbabwean authorities should implement stricter regulations on bank capital adequacy, improve risk management practices, enhance market competition, and improve bank governance to enhance the financial stability of commercial banks in Zimbabwe. These recommendations can help banks maintain sufficient levels of capital to absorb potential losses and improve their risk management practices to ensure that they can maintain adequate levels of capital and financial stability.

5.5 Suggested Areas for Future Research

The report makes numerous recommendations for additional areas of study to deepen our knowledge of the variables affecting the capital adequacy and financial efficiency of commercial banks in Zimbabwe. These territories consist of:

The impact of macroeconomic factors: According to the study, In Zimbabwe, commercial banks' financial performance was significantly impacted by macroeconomic elements like inflation and exchange rate fluctuations. However, the research did not explore the influence of other macroeconomic factors like GDP growth, interest rates, and government policies. Future studies should therefore concentrate on assessing how these factors affect the financial performance of commercial banks in Zimbabwe.

The role that technology plays: The inquiry discovered that technology has a significant impact on Zimbabwe's commercial banks' effectiveness. However, the study did not find investigate the specific role of technology in enhancing the efficiency of commercial banks. Future research should investigate the specific role of technology, including the use of digital banking, mobile banking, and other technological innovations, in increasing the effectiveness of Zimbabwe's commercial banks.

The impact of bank size: Based on the study, the size of the bank was an important factor that influenced the financial performance, with larger banks having higher profitability and financial efficiency. However, the study did not investigate the impact of other dimensions of bank size, such as geographic scope, product range, and customer base. The effects of the highlighted characteristics of bank size on the financial proficiency of commercial banks in Zimbabwe should be assessed in further research.

The impact of international trade: The study's conclusions showed that international trade significantly affects the financial health of Zimbabwe's commercial banks. However, the study did not investigate the impact of other dimensions of international trade, such as trade liberalization, trade openness, and trade infrastructure. Future studies should look into how these aspects of global trade affect the financial health of Zimbabwean commercial banks.

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