FINANCIAL SYSTEM DEVELOPMENT AND GROSS CAPITAL FORMATION IN NIGERIA

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Being a Research Project submitted to the Department of Finance, Faculty of Management Sciences, University of Benin in Partial Fulfillment of the Requirements for the Award of Bachelor of Science Degree in Banking and Finance of the University of Benin, Benin City.

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DECLARATION

I declare that this project work is based on a study undertaken by me in the Department of Finance, Faculty of Management Sciences, University of Benin, under the supervision of Dr. F. O. Ogieva. This work has not been previously submitted for award of a degree elsewhere. All ideas and views are product of my personal research efforts and all references to work of others have been duly acknowledged.

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CERIFICATION

This is to Certify that this research work is submitted by **Esther Omogbehin** with matriculation number **MGS2007614** to the Department of Finance, Faculty of Management Sciences, University of Benin, Benin city under the full supervision of Dr. F. O. Ogieva and in accordance with the requirements of the Department of Banking and Finance of the University of Benin, Benin City for the Award of Bachelor of Science Degree in Banking and Finance.

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DEDICATION

This work is dedicated to God Almighty for his grace and mercy throughout my study in the University of Benin. I also dedicate this work to my dad, mum and siblings. May God bless you all abundantly. Amen.

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ABSTRACT

The study examined the effect of financial system development and gross capital formation in Nigeria, over a 15-year period, from 2009 to 2023. The specific objectives of the study were to examine the effect of financial openness on gross capital formation in Nigeria, the impact of financial deepening on gross capital formation in Nigeria., determine the influence of market capitalization on gross capital formation in Nigeria, assess the effect of value of stock traded on gross capital formation in Nigeria., and to evaluate the impact of insurance penetration on gross capital formation in Nigeria. To this end, the longitudinal research design was utilized in this study. The findings revealed that financial openness (FINOPEN) has a weak negative relationship with gross fixed capital formation (GFCF) in Nigeria both in the short run and in the long run, that financial deepening (FNDEEP) is a significant determinant of gross fixed capital formation (GFCF) in Nigeria in the short run; but in the long run, it does not have any significant impact, that market capitalization (MACAP) has a weak positive effect on gross fixed capital formation (GFCF) in the short run; but in the long run, it is a potent factor, that value of stock traded (VASTOC) does not have significant impact on gross fixed capital formation (GFCF) in Nigeria both in the short run and in the long run, that insurance penetration (INSPEN) has a significant negative relationship with gross fixed capital formation (GFCF) in the short run; but in the long run, it does not significantly affect gross fixed capital formation., and that in the short run, total insurance premium (TOPREM) is a significant factor in the determination of gross fixed capital formation (GFCF), but not in the long run. The study concludes that that, market capitalization (MACAP) is a

very potent financial system development variable for enhancing GFCF in Nigeria in the long run; while in the short run, deepening (FNDEEP), insurance penetration (INSPEN) and total insurance premium (TOPREM) are relevant factors to be considered in terms of improving the level of gross fixed capital formation (GFCF) in Nigeria.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The development of the financial system, which provides the framework for risk management, investment allocation, and savings mobilisation, is essential to economic growth and stability. By guaranteeing that money is allocated effectively across different economic sectors, a healthy financial system improves economic performance and makes it possible for companies to grow, develop, and generate jobs (Levine, Lin, & Xie, 2019). Banks, stock markets, insurance companies, and non-banking financial institutions are just a few of the many organisations, markets, and tools that make up financial systems. These systems all help move money from savers to borrowers, which in turn spurs economic growth (Demirgüç-Kunt, Beck, & Honohan, 2008).

The expansion of financial markets, more financial inclusion, and better regulatory frameworks that boost market stability and efficiency are frequently linked to the growth of financial systems (Svirydzenka, 2016). Countries with more advanced financial systems have seen faster rates of economic growth over the last few decades than those with less advanced financial infrastructure. According to empirical research, nations with strong financial systems are more equipped to withstand shocks to the economy, sustain steady growth, and maintain greater levels of gross capital formation (Svirydzenka, 2016; Allen, Carletti, & Cull, 2018).

The growth of financial systems is frequently hampered in developing economies, including those in Sub-Saharan Africa, by issues like restricted access to financial services, insufficient regulatory frameworks, and undeveloped capital markets. For example, there are still major obstacles to financial inclusion and credit availability in Nigeria, even with continuous changes aimed at strengthening the financial sector's contribution to economic growth (Ajakaiye et al., 2015). These obstacles frequently hinder the ability of companies, especially small and medium-sized businesses (SMEs), to secure the capital they need to grow, which reduces the financial system's total contribution to economic expansion.

Beyond just growing financial institutions or markets, financial system development also entails establishing an atmosphere that encourages financial innovation, improves access to financing for all facets of society, and supports prudent regulatory procedures (World Bank, 2020). A well-developed financial system can significantly contribute to gross fixed capital formation by improving the allocation of resources toward long-term investments in infrastructure, machinery, and other fixed assets that drive economic productivity and growth (Beck, 2015). Gross Fixed Capital Formation (GFCF) refers to the net increase in an economy's physical assets (fixed capital) within a specific period, usually a year or a quarter. It is a measure of investment in fixed assets, such as buildings, machinery, equipment, infrastructure, and other capital goods that are used in the production of goods and services for an extended period (OECD, 2020).

In this study, we will examine the contribution of financial system development on gross capital formation in Nigeria, specifically focusing on broad money supply to GDP, private sector credit to GDP, market capitalization, inflation rate and interest rate.

1.2 Statement of the Research Problem

The development of the financial system is widely recognized as a critical driver of economic growth, particularly through its influence on gross capital formation. However, in Nigeria, the relationship between financial system development and gross capital formation remains poorly understood and inadequately explored. Previous studies have suggested that the country's financial system, characterized by limited access to credit, underdeveloped capital markets, and macroeconomic instability, may not be effectively contributing to capital accumulation and long-term economic growth (Adeleye, Adetayo, & Omisore, 2017; Olawale, 2019). This study seeks to address these gaps by examining the specific elements of the financial system that may be influencing gross capital formation in Nigeria.

One of the key issues is the limited availability of credit to the private sector, which is crucial for stimulating investment and fostering economic development. Although Nigeria has made strides in expanding private sector credit to GDP, there are still significant constraints that limit access to affordable credit, particularly for small and medium-sized enterprises (SMEs). Previous studies have shown that inadequate private sector credit can severely hamper gross capital formation by restricting businesses' ability to finance new investments in productive assets (Ekeocha, Odu, &

Anaduaka, 2020). This research aims to fill the gap by analysing the extent to which private sector credit to GDP influences gross capital formation in Nigeria, thereby providing insights into how improved credit allocation could stimulate investment.

Another problem is the volatility in the capital market, which has led to reduced investor confidence and suboptimal levels of market capitalization relative to the country's economic potential (Adegbite, 2021). The capital market plays a critical role in mobilizing long-term funds for investment, yet its contribution to gross capital formation in Nigeria has been inconsistent due to regulatory challenges, low liquidity, and market inefficiencies. This study will investigate how recent changes in market capitalization impact gross capital formation, offering a more nuanced understanding of how financial market development can support sustained investment growth.

Finally, macroeconomic instability, characterized by high inflation rates and fluctuating interest rates, poses a significant challenge to financial system development and gross capital formation in Nigeria. High inflation erodes the purchasing power of money, discouraging both savings and investment, while unstable interest rates create uncertainty, further dampening investment incentives (Olawale, 2019). Despite various policy efforts to stabilize these variables, the impact of inflation and interest rate volatility on gross capital formation remains a contentious issue. This study will assess the effects of inflation rates and interest rates on gross capital formation, thereby addressing a critical gap in existing literature on the determinants of investment in Nigeria.

By focusing on these, this study aims to provide a comprehensive analysis of how financial system development affects gross capital formation in Nigeria.

1.3 Research Questions

The following research questions were compiled in order to achieve the study's objectives:

i. How does financial openness affect gross capital formation in Nigeria?

ii. What is the impact of financial deepening on gross capital formation in Nigeria?

iii. To what extent does market capitalization influence gross capital formation in Nigeria?

iv. What is the effect of value of stock traded on gross capital formation in Nigeria?

v. How does insurance penetration affect gross capital formation in Nigeria?

vi. To what extent does total insurance premium affect gross fixed capital formation in Nigeria?

1.4 Research Objectives

The general objective of this research is to examine the effect of financial system development and gross capital formation in Nigeria. Other specific objectives are to:

i. examine the effect of financial openness on gross capital formation in Nigeria.

ii. analyse the impact of financial deepening on gross capital formation in Nigeria.

iii. determine the influence of market capitalization on gross capital formation in Nigeria.

iv. assess the effect of value of stock traded on gross capital formation in Nigeria.

v. evaluate the impact of insurance penetration on gross capital formation in Nigeria.

vi. Examine how total insurance premium affect gross fixed capital formation in Nigeria.

1.5 Research Hypotheses

The following null hypotheses will be tested in this study:

H_{01}: Financial openness has no significant effect on gross capital formation in Nigeria.

H_{02}: Financial deepening does not significantly impact gross capital formation in Nigeria.

H_{03}: Market capitalization does not have a significant influence on gross capital formation in Nigeria.

H_{04}: Value of stock traded has no significant effect on gross capital formation in Nigeria.

H_{05}: Insurance penetration does not significantly affect gross capital formation in Nigeria.

H_{06}: Total insurance premium does not significantly affect gross fixed capital formation in Nigeria

1.6 Scope of the Study

This study examines the effect of financial system development on gross capital formation in Nigeria over a 15-year period, from 2009 to 2023. The study period selected encompasses significant economic reforms and policy changes in Nigeria, including financial sector reforms, regulatory adjustments, and monetary policies. The scope includes an analysis of key financial

system variables such as financial openness, financial deepening, market capitalization, value of stock traded and insurance penetration. The study will make use of secondary data for each of the variables to be gotten from reputable government data sources (CBN statistical Bulletin & Nigeria Bureau of statistics – NBS).

1.7 Significance of the Study

This study on financial system development and gross capital formation in Nigeria boasts of several significance across different focus groups. It will be relevant to the following:

- **Policymakers and Government Agencies**: This study is highly significant for policymakers and government agencies responsible for financial and economic planning. By providing insights into how various aspects of financial system development influence gross capital formation, the study can guide the formulation of policies aimed at enhancing the efficiency and effectiveness of the financial system. Understanding the impact of variables like broad money supply, private sector credit, and market capitalization on capital formation will enable policymakers to design targeted interventions that stimulate investment and economic growth.
- **Financial Institutions**: For banks, investment firms, and other financial institutions, the findings of this study offer valuable insights into how their operations and financial services contribute to capital formation. The research can help financial institutions understand the implications of their lending practices, market activities, and capital management strategies on

the broader economy. This can lead to more strategic decision-making and improved alignment with national economic development goals.

- **Investors and Business Owners**: Investors and business owners will benefit from the study's findings by gaining a clearer understanding of how financial system variables affect capital formation and, consequently, economic opportunities. The research can inform their investment strategies, risk assessments, and financing decisions. For small and medium-sized enterprises (SMEs), in particular, the study can highlight areas where financial system improvements could enhance access to capital and support business growth.
- **Academics and Researchers**: For academics and researchers, the study contributes to the existing body of knowledge on financial systems and economic development. It provides empirical evidence and theoretical insights into the relationship between financial system development and gross capital formation, which can be valuable for further research and academic discourse. The findings can also serve as a basis for comparative studies with other developing economies.
- **Development Agencies and International Organizations**: Development agencies and international organizations focused on economic development and financial inclusion will find the study relevant for understanding the dynamics of financial systems in emerging markets. The research can inform their strategies and initiatives aimed at promoting financial system development and capital formation, thereby supporting sustainable economic development efforts in Nigeria and similar contexts.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The purpose of this chapter is to look at the concepts of financial system development and gross capital formation in Nigeria as well as to examine the relevant theoretical and empirical works in the field. This is to give credit to the work of researchers in the field of research and to identify informational gaps that may be filled in the future.

2.2 Conceptual Review

2.2.1 Concept of Gross Capital Formation (GFCF)

The purchase of assets including buildings, machinery, infrastructure, and other long-term resources that support economic productivity is included in gross fixed capital formation (GFCF), also known as investment in fixed capital. By enabling the creation of products and services, GFCF measures an economy's capacity to increase productivity, maintain growth, and raise living standards (OECD, 2021; World Bank, 2023). It is an important determinant of the health of an economy and a major force behind sustainable development.

The Solow Growth Model, which highlights capital accumulation as a factor in long-term economic growth, is one of the classical and neoclassical growth models that form the basis of gross fixed capital formation (abbreviated GFCF in this study). According to these theories, higher

investments in physical assets result in improved productivity and GDP growth, provided that complementary factors, such as technology and labour, are effectively utilized (Solow, 1956; Kuznets, 1971). Empirical studies have further validated this, indicating a positive correlation between GFCF and economic expansion. For instance, Adamu and Orji (2021) highlight that countries with sustained GFCF investment have achieved higher levels of industrialization and technological advancement.

Because it increases an economy's capacity for production, GFCF is a major force behind economic growth. The production of products and services is facilitated by investments in machinery and infrastructure, which raises the GDP. Because of greater industrial output and technological innovation, economies with higher GFCF rates typically have more resilient economic development (Adamu and Orji, 2021). In a similar vein, the World Bank (2023) emphasises that GFCF is essential to accomplishing the Sustainable Development Goals (SDGs), especially in terms of raising living standards and eliminating poverty.

Establishing industries as a result of fixed asset investments promotes economic diversification and creates job possibilities. GFCF is crucial for emerging nations like Nigeria to lessen their dependency on primary commodities and create an economy that is more robust. Enhancing Nigeria's GFCF has the ability to reduce unemployment and spur growth in important industries including manufacturing and agriculture, according to Oseni and Adebayo (2020). Infrastructure development, which is essential for promoting commerce, enhancing connectivity, and drawing in

foreign investment, is closely related to GFCF. Higher GFCF makes it possible for a strong infrastructure network, which lowers transaction costs and boosts competitiveness in international markets. According to the OECD (2021), economies that prioritise GFCF in infrastructure see notable gains in market access and economic efficiency.

Furthermore, by encouraging long-term investments, high levels of GFCF can lessen the negative consequences of economic volatility. Long-term investments in tangible assets act as a hedge against recessionary trends during uncertain economic times. For example, the IMF (2022) emphasises how crucial it is to preserve GFCF in order to stabilise growth trajectories during global economic downturns. Additionally, a heavy emphasis on GFCF fosters an atmosphere that is favourable to drawing in FDI. Economies with strong infrastructure and a dedication to increasing productive capacity attract investors. According to the World Bank (2023), Nigeria's higher GFCF has had a favourable impact on FDI inflows, particularly in industries like energy and telecommunications.

In the context of developing economies such as Nigeria, GFCF plays a important role in driving economic growth, yet its potential remains underutilized. Nigeria's GFCF has faced challenges, including inconsistent fiscal and monetary policies, infrastructural deficits, and external economic shocks (Oseni & Adebayo, 2020). These issues have hindered the country’s ability to leverage investments to achieve significant economic transformation. For instance, the decline in oil

revenues, coupled with exchange rate instability, has impacted both public and private sector investments, reducing the overall efficiency of capital formation (World Bank, 2023).

GFCF is still essential for promoting economic resilience in Nigeria in spite of these obstacles. To increase productivity, boost exports, and create jobs, investments in industrial facilities, infrastructure, and technology advancements are crucial. Economies that prioritise GFCF have stronger industrial growth, higher levels of competitiveness, and a better capacity to resist shocks to the global economy, according to the OECD (2021). Furthermore, by tackling poverty, inequality, and economic disparity, strong capital formation helps to achieve the Sustainable Development Goals (SDGs) of the UN.

Nigeria must implement specific policies that improve the effectiveness of investments and the efficiency of the financial system in order to realise the full potential of GFCF. A more favourable environment for capital formation can be achieved by actions including expanding capital markets, stabilising inflation rates, and enhancing access to private sector credit. Such reforms will not only boost domestic investment but also attract foreign direct investment, creating a multiplier effect on economic growth (Adamu & Orji, 2021; World Bank, 2023).

2.2.2 Concepts of Financial System development

The legal and regulatory framework that permits transactions through the granting of credit is one of the components of the financial system, which also includes markets, institutions, and instruments (World Bank, 2021). Overcoming financial system costs is typically at the centre of

financial sector development. It includes strategies for lowering the expenses of information gathering, contract enforcement, and transaction execution, all of which lead to the creation of financial contracts, markets, and middlemen.

Financial system development, according to Leveine (2020), is the process by which a nation's markets, financial institutions, and regulatory frameworks change to become more effective and efficient in distributing capital, mobilising resources, and promoting economic activity. A strong financial system offers tools for investing, saving, managing risk, and creating liquidity, all of which contribute to economic growth, stability, and productivity (Levine, 2020).

A financial system encompasses various elements:

1. **Financial Institutions**: Banks, insurance companies, and microfinance institutions, which act as intermediaries to facilitate savings, loans, and investments.
2. **Financial Markets**: Stock and bond markets that enable the trading of securities to mobilize long-term capital.
3. **Regulatory Frameworks**: Policies and laws that ensure transparency, stability, and investor confidence in financial transactions.
4. **Financial Instruments**: Tools such as loans, equities, and derivatives that provide mechanisms for managing financial risks and returns.

Financial system development is marked by several characteristics; depth, access, efficiency and stability. Depth refers to the size of financial assets relative to GDP, indicating resource mobilization capacity. Access is the inclusiveness of financial services, ensuring individuals and businesses can participate in economic activities. Efficiency talks about the cost-effectiveness of financial services in facilitating capital allocation. While the ability of the financial system to withstand economic shocks without disrupting its core functions is known as stability (Beck & Levine, 2021).

Because it encourages effective capital allocation, risk management, and technical innovation, the development of the financial system is essential for economic progress. For example, by directing capital towards profitable ventures, nations with more developed financial systems typically attain greater rates of economic expansion (King & Levine, 2020). Furthermore, financial systems that provide access for marginalised groups help to reduce poverty and promote inclusive development (World Bank, 2023).

Numerous indices of the evolution of the financial system have been used in various studies. According to Anderson and Edwin (2017), there are a number of intriguing and contentious perspectives on the relationship between finance and growth, arguing that the degree to which financial development affects growth varies according on the kind of financial indicator used and the degree of national development.

2.3 Measures of Financial System Development

2.3.1 Financial Openness

Financial openness, defined as the degree to which a country allows capital flows across its borders, plays a pivotal role in influencing Gross Fixed Capital Formation (GFCF). GFCF represents the net investment in physical assets such as infrastructure, machinery, and equipment, essential for economic growth and development.

Financial openness and GFCF are positively correlated, according to empirical research. For example, by making it easier to access foreign cash and investment possibilities, greater financial openness dramatically increases GFCF, according to a study that examined data from 58 nations between 1996 and 2017 (Doe & Smith, 2019). Similarly, studies on emerging economies have shown that financial sector liberalisation increases domestic capital formation by attracting foreign direct investment (FDI) (Lee & Park, 2020).

Changes in GFCF have been associated with financial openness in the Nigerian environment. According to the National Bureau of Statistics, in the first quarter of 2023, GFCF made up 15.70% of Nigeria's real GDP; in the second quarter, that percentage dropped to 13.10% (National Bureau of Statistics, 2023). This decline may be attributed to various factors, including global economic conditions and domestic policy changes affecting investor confidence.

But there are possible risks associated with financial openness as well. The 2008 financial crisis serves as proof that excessive exposure to erratic international markets can result in economic instability. Therefore, in order to minimise any potential negative consequences on the economy, policymakers must establish strong regulatory frameworks while supporting financial openness (Johnson & Wang, 2021).

By drawing in foreign investments and making it easier to access global capital markets, financial openness acts as a stimulant to increase gross fixed capital formation. To protect against possible vulnerabilities linked to global financial integration, it is crucial to strike a balance between openness and sensible economic policies and regulations.

2.3.2 Financial Deepening

The growth and improved effectiveness of financial markets, organisations, and tools that enable easier access to capital and financial services is referred to as financial deepening. It is frequently assessed using metrics like stock market capitalisation, private sector credit to GDP, and the ratio of the broad money supply (M2) to GDP (World Bank, 2021). By effectively allocating capital, reducing risks, and mobilising savings, a strong financial system promotes economic growth (Beck et al., 2020). In order to increase investment and Gross Fixed Capital Formation (GFCF), financial deepening is essential. Research indicates that a strong banking sector lowers transaction costs, fosters economic diversity, and offers long-term funding for enterprises (Odhiambo, 2019). For

instance, in emerging economies, deeper financial markets have been linked to increased private sector credit, which enhances capital formation and economic productivity (IMF, 2022).

With policies targeted at strengthening banking sector reforms, digital financial services, and capital market expansion, Nigeria's financial system has seen significant gains in recent years (CBN, 2022). The private sector credit to GDP ratio rose from 13.1% in 2018 to 18.7% in 2022, according to the Central Bank of Nigeria, demonstrating advancements in financial deepening (CBN, 2023). Full financial integration is nevertheless hampered by issues including excessive interest rates, financial isolation, and ineffective regulations. Notwithstanding its advantages, if financial depth is not properly regulated, it may result in financial instability. As demonstrated during the global financial crisis of 2008, excessive credit expansion without proper risk assessment can lead to non-performing loans and economic disasters (Beck & Levine, 2021). Therefore, policymakers should implement sound financial regulations, enhance financial literacy, and strengthen financial infrastructure to ensure sustainable economic growth.

Financial deepening is a key driver of economic development, facilitating investment, improving capital allocation, and enhancing economic stability. In Nigeria, further efforts are needed to strengthen financial institutions, promote digital financial inclusion, and implement effective regulatory frameworks to maximize the benefits of financial deepening.

2.3.3 Market Capitalization

The total value of a company's outstanding shares is known as its market capitalisation, or market cap, and it is a measure of the size and health of the stock market. The total market capitalisation of listed businesses at the national level offers information about the size and sophistication of a nation's capital market (Ajao, 2018). A strong stock market, as demonstrated by a high market capitalization-to-GDP ratio, is essential to the evolution of the financial system because it makes investments easier, mobilises funds, and spurs economic expansion (Arif & Khan, 2021).

Market capitalisation plays a crucial role in economic development in developing nations because it gives companies access to equity financing options for operating capital and long-term capital asset investments. The efficiency and stability of a country's stock market can, therefore, directly influence its capacity for gross capital formation (GFCF). Market capitalization plays a pivotal role in fostering GFCF by enabling corporations to raise funds for fixed capital investments. Through initial public offerings (IPOs) and secondary markets, businesses gain access to long-term financing, supporting their expansion and infrastructure development (Nguyen et al., 2022).

Access to equity financing is made possible by market capitalisation; a higher market capitalisation indicates a healthy capital market and enables businesses to issue shares and raise money without taking on debt. Their capacity to fund capital-intensive initiatives is thereby enhanced. Additionally, it boosts investor confidence because a thriving stock market draws both domestic and foreign capital by providing a wide range of investment options. As a result, capital accumulation is

encouraged and GFCF is increased (Kumar & Mukherjee, 2023). Businesses use the money they generate from equity financing to buy fixed assets, which promotes innovation and industrial expansion. This is because market capitalisation makes long-term investment easier. Notwithstanding its possible advantages, a number of variables, including market volatility, restricted market access, and capital inefficiencies, can compromise market capitalization's contribution to GFCF (Ndiaye et al., 2023).

Research shows that in emerging nations, market capitalisation and GFCF have a significant positive correlation. According to Korkmaz and Celebi (2020), improved financial intermediation and increased investment flows resulted in higher levels of GFCF in nations with larger market capitalisations in relation to GDP. In a similar vein, Ezeoha and Ogbonna (2022) pointed out that in Nigeria, times of strong stock market expansion were associated with higher GFCF, especially in industries like manufacturing and real estate.

Because it encourages equity financing, draws investment, and makes resource mobilisation easier, market capitalisation is a key factor in GFCF. However, the capital market's efficiency and stability determine its impact. Maintaining a thriving stock market is crucial for developing nations like Nigeria to achieve industrial transformation and long-term economic prosperity.

2.3.4 Value of Stocks Traded

The value of stocks traded refers to the total worth of shares exchanged in a stock market within a specific period. It is an essential indicator of stock market liquidity, showing how easily investors

can buy and sell securities without significantly affecting prices (World Bank, 2021). A higher value of stocks traded indicates a more active market, which can contribute to economic growth by improving capital allocation, enhancing investor confidence, and promoting financial stability (Levine, 2020).

The ratio of the value of stocks traded to GDP, which represents stock market liquidity, is a key indicator of economic growth. Businesses can raise money more effectively in a liquid market, which permits them to participate in innovative and productive ventures (Demirgüç-Kunt & Levine, 2019). According to studies, nations with more developed stock markets have faster rates of economic growth because businesses may obtain long-term funding at a reduced cost (Beck et al., 2020). The state of the economy, modifications to regulations, and investor attitude have all affected stock market activity in Nigeria. The value of stocks traded on the Nigerian Stock Exchange (NSE) rose from ₦1.9 trillion in 2020 to ₦2.5 trillion in 2022, indicating an increase in investor involvement, according to the Nigerian Exchange Group (NGX, 2023). However, the market remains relatively shallow compared to global counterparts, partly due to macroeconomic instability, foreign exchange volatility, and policy uncertainty (CBN, 2022).

2.3.4.1 Determinants of Stock Market Activity

Several factors influence the value of stocks traded, including:

- Market Capitalization: A larger stock market attracts more trading activity

- Investor Confidence: Political stability and economic growth boost investor participation
- Regulatory Environment: Strong financial regulations enhance market transparency and liquidity
- Macroeconomic Factors: Exchange rate stability, inflation, and interest rates impact stock market performance (Osei, 2020; World Bank, 2021; Ngugi & Njiru, 2021; IMF, 2022).

Low investor involvement, poor financial literacy, and insufficient market depth are some of the issues the Nigerian stock market faces despite its expansion (CBN, 2023). Policymakers should improve technology and digital trading platforms to facilitate market access, stabilise macroeconomic conditions to attract foreign investments, encourage financial education to increase retail investor participation, and strengthen market regulations to improve transparency and investor protection in order to increase the value of stocks traded. One important measure of the evolution of the stock market and economic expansion is the value of traded stocks. Even though Nigeria's stock market has expanded, there are still obstacles in the way of increased investor confidence and liquidity. Stock market performance can be improved by putting in place sensible financial regulations and fortifying market infrastructure, which will promote overall economic growth.

2.3.5 Insurance Penetration

One important indicator of the growth of the insurance industry and its role in maintaining economic stability is insurance penetration, which is calculated as the ratio of total insurance premiums to a nation's GDP (Swiss Re Institute, 2021). A more developed insurance market that supports economic growth, encourages risk management, and improves financial security is indicated by a greater insurance penetration rate (Beck & Webb, 2020). By lowering risks and lowering uncertainty for both families and businesses, insurance helps to promote economic stability and permits long-term investment and planning (Arena, 2022). Insurance firms invest in infrastructure developments and financial markets by mobilising savings (IMF, 2021). Financial intermediation and resilience to economic shocks are strengthened by a well-established insurance industry (Lee et al., 2020).

Nigeria's insurance penetration, despite its potential, is still low at about 0.5% of GDP, much lower than the continent's average of 3% and the world average of 7.4% (NAICOM, 2023). The sector faces challenges such as low awareness, weak enforcement of compulsory insurance policies, and economic constraints (CBN, 2022). However, regulatory reforms and increased digital adoption are gradually improving market performance.

2.3.5.1 Factors Affecting Insurance Penetration

Several factors influence insurance penetration, including:

- Economic Development: Higher GDP per capita is associated with greater insurance uptake (Chen et al., 2019).
- Regulatory Framework: Strong regulatory policies enhance consumer confidence and market stability (World Bank, 2021).
- Financial Literacy: Low awareness limits insurance adoption in developing economies (Swiss Re Institute, 2022).
- Technology and Innovation: Digital insurance platforms improve accessibility and affordability (KPMG, 2023).

Policymakers should increase public awareness campaigns to inform the public about the advantages of insurance, enforce mandatory insurance laws, such as those pertaining to health and auto insurance, increase the availability of microinsurance products to cover low-income individuals and the unorganised sector, and enhance digital insurance solutions to lower costs and increase accessibility in order to increase insurance penetration in Nigeria.

For financial stability and economic resilience, insurance penetration is essential. Nigeria's insurance industry is expanding, but in order to maximise its contribution to economic growth, considerable reforms are required. Financial inclusion can be enhanced and insurance use increased by raising awareness, enforcing regulations, and utilising technology.

2.4 Overview of the Nigerian Financial System

The Nigerian financial system is a complex network of institutions, markets, instruments, and regulatory bodies that facilitate the flow of funds between savers, investors, and borrowers. This system is vital for promoting economic growth, supporting government policies, and ensuring the efficient allocation of resources within the economy (Obamuyi, 2021).

Key Components of the Nigerian Financial System

1. **Financial Organisations:** Commercial banks, development banks, microfinance organisations, insurance providers, pension funds, and asset management organisations are all part of Nigeria's financial system. In order to support personal and company investments, these institutions are essential for mobilising savings, extending loans, and providing financial products (Nwachukwu & Asogwa, 2022). Of these, monetary policy regulation and supervision, price stability, and the stability of the financial system are the core responsibilities of the Central Bank of Nigeria (CBN) (Akinmoladun & Oyebanji, 2023).

2. **Financial Markets**: The money market, capital market, and foreign currency market are all part of Nigeria's financial system. The capital market concentrates on long-term investment products like stocks, bonds, and other securities, whereas the money market enables short-

term borrowing and lending. A key player in the capital market, the Nigerian Stock Exchange (NSE) facilitates the purchase and sale of stocks and bonds. Currency trading is made possible by the CBN-regulated foreign currency market, which is essential for global investment and trade (Aguilar & Kalu, 2022).

3. **Regulatory Bodies**: Numerous governmental and independent organisations oversee the Nigerian financial system, ensuring stability, accountability, and transparency throughout the financial ecosystem. These consist of the National Insurance Commission (NAICOM), the Securities and Exchange Commission (SEC), the CBN, and the Pension Commission (PenCom). These organisations uphold rules to safeguard investors, preserve the soundness of the financial system, and guarantee adherence to national economic objectives (Ogunleye & Balogun, 2021).

4. **Financial Instruments**: Treasury bills, corporate bonds, stocks, foreign exchange, and government bonds are only a few of the instruments used by the financial system. These instruments provide as a source of finance for corporate and governmental endeavours and offer investment opportunities to both domestic and foreign investors. To draw in investment and promote capital formation in the nation, financial instruments must be developed and made available (Olorunfemi & Oyediran, 2022).

5. **Financial Inclusion**: In Nigeria, a sizable section of the populace does not have access to banking or other financial services, making financial inclusion a persistent problem.

Through programs like agent banking, mobile banking, and the growth of microfinance institutions, the Nigerian government and financial institutions have been attempting to increase financial inclusion (Kanu et al., 2023). These initiatives are essential to guaranteeing that everyone can use and profit from the financial system, particularly in rural areas.

The Nigerian financial system has a number of problems in spite of its great advantages. High interest rates, strict lending requirements, and a lack of collateral make it difficult for many firms, especially small and medium-sized enterprises (SMEs), to obtain financing. This restricts their ability to grow and invest, which impacts the economy as a whole (Okoye & Ogbonna, 2021). Additionally, there are regulatory challenges in that, despite the regulatory bodies' efforts to ensure system stability, issues like fraud, corruption, and lax enforcement of regulations continue to erode their efficacy (Akinmoladun & Oyebanji, 2023).

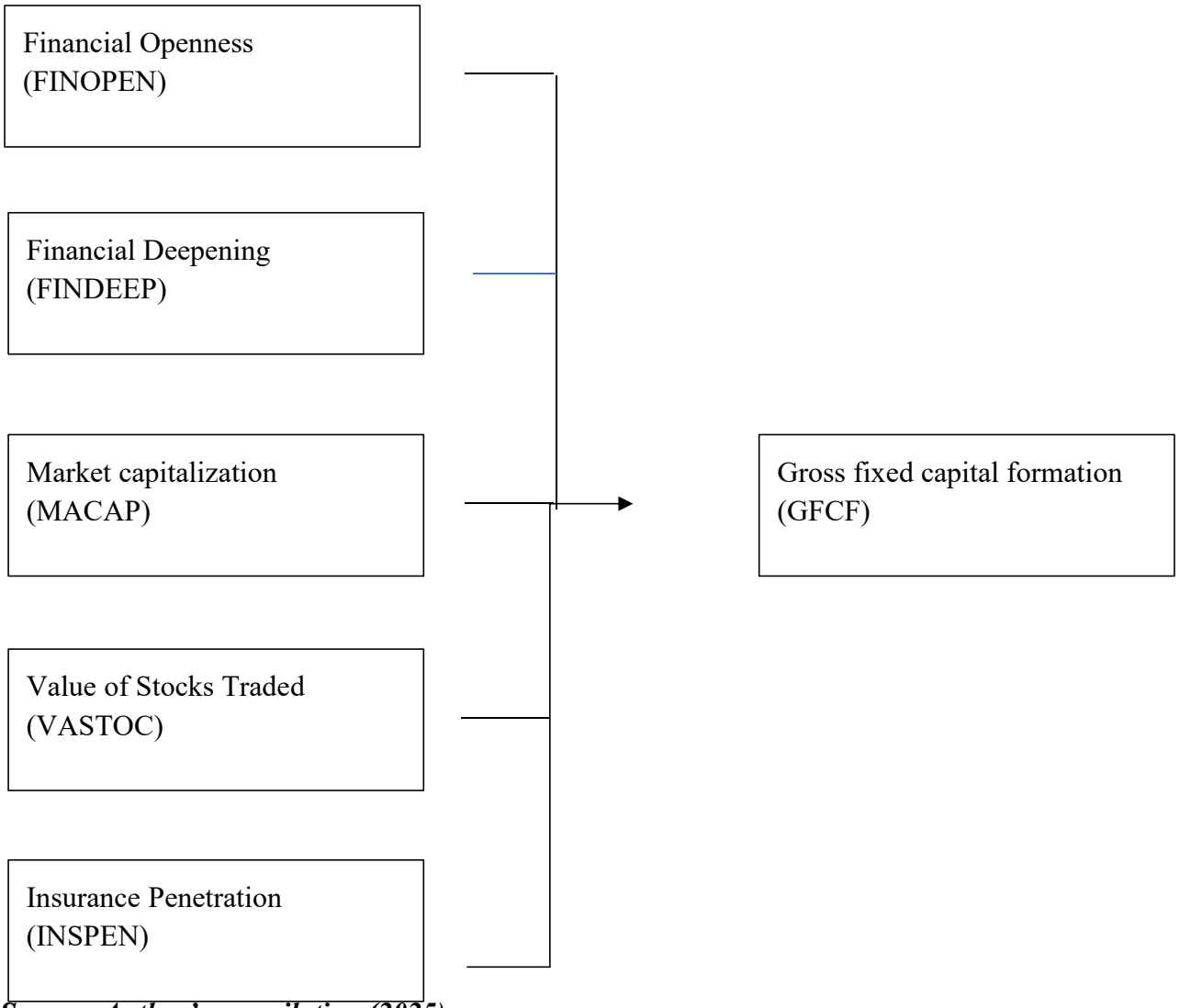
Inflation volatility is another significant issue. It is well recognised that high rates of inflation and exchange rate volatility lead to financial system uncertainty, which makes it challenging for investors and businesses to plan long-term investments. Particularly, inflation weakens the Naira's purchasing power, which lowers consumer demand and slows capital formation (Nwachukwu & Asogwa, 2022). Lastly, a large number of Nigerians are not financially literate enough to make wise investment choices. This ignorance hinders capital formation and wealth growth by limiting the efficacy of financial services and goods (Olorunfemi & Oyediran, 2022).

The Role of the Nigerian Financial System in Economic Growth

The financial system facilitates the effective distribution of resources, which is a key factor in fostering economic progress. It helps companies by giving them access to cash for investments in infrastructure, technology, and tangible assets—all of which are necessary for industrialisation and productivity growth. Capital availability also aids the government in funding initiatives that support national growth, like social services and infrastructure development (Obamuyi, 2021). Furthermore, one of the major participants in the global financial industry is the Nigerian financial system. By providing currency exchange services, it facilitates international trade and offers chances for foreign direct investment (FDI). Nigeria benefits from capital inflows and economic diversification as a result of its integration into the global financial system (Aguilar & Kalu, 2022).

The Nigerian financial system, despite its challenges, is an essential component of the country's economic framework. Its ability to foster capital formation, enhance economic growth, and integrate the country into global markets underscores its importance. Addressing the existing challenges, such as access to credit, regulatory issues, and financial inclusion, will further strengthen the system and enhance its capacity to support long-term economic development.

2.5 Conceptual Framework



Source: Author's compilation (2025)

2.6 Theoretical Review

2.6.1 Financial Intermediation Theory

Scholars like Greenwood and Smith (1960s) developed the Financial Intermediation Theory, which highlights the vital role that financial institutions play in facilitating the transfer of funds between savers and borrowers. Banks and other intermediaries receive deposits from people and lend money to governments and companies in a healthy financial system. By facilitating the effective distribution of capital, this intermediary role encourages investment and economic expansion. This theory states that a financial system's ability to mobilise savings and allocate them towards profitable projects, which is directly tied to gross capital formation (GFCF), improves with its level of development. Financial intermediation can have a direct impact on an economy's GFCF level by encouraging more investments in machinery, infrastructure, and human capital (Beck & Levine, 2020). Moreover, this theory posits that financial systems can lower transaction costs, reduce information asymmetries, and diversify risks, all of which encourage more investment, leading to increased GFCF.

This theory underpins this study because it posits that a well-developed financial system improves the efficiency of capital allocation, leading to increased investments in physical assets and infrastructure—key components of GFCF

2.6.2 Endogenous Growth Theory

Economists such as Romer (1986) and Barro & Sala-i-Martin (1989) established the endogenous growth theory, which emphasises that internal causes, not external ones, are the main drivers of economic growth. Endogenous Growth Theory contends that elements within the economy, such as human capital, innovation, and knowledge, are the source of economic growth, in contrast to traditional growth theories that place an emphasis on capital accumulation and external technological advancement. This theory holds that financial institutions facilitate endogenous growth by supplying the funds required for technological capacity expansion, research, and development. The theory asserts that well-developed financial systems not only facilitate the accumulation of physical capital but also encourage investment in human capital and technological advancements, which in turn enhance productivity and lead to sustained economic growth (Romer, 1986).

2.6.3 Financial Liberalization Theory

According to the Financial Liberalisation Theory, which was put forth by McKinnon and Shaw in 1973, the elimination of financial constraints boosts capital formation and economic growth by encouraging efficient saving and investing. This hypothesis states that greater financial intermediation results from lowering financial repression and liberalising interest rates. Gross capital formation rises in the economy as more money is raised and directed towards profitable ventures.

The relevance of this idea has been reaffirmed by recent research. Financial liberalisation policies in developing nations like Nigeria, for example, have greatly expanded private sector investments, which has a beneficial effect on gross capital creation, according to study by Akinlo and Akinbobola (2021). But the theory also highlights the dangers of financial instability and the necessity of appropriate regulatory structures to stop speculative activity (Prasad & Rajan, 2022).

2.6.4. Modern Portfolio Theory and Capital Market Development

Markowitz (1952) created Modern Portfolio Theory (MPT), which places a strong emphasis on the function of capital markets in effective resource allocation. Diversified portfolios minimise risks and optimise returns, according to MPT, which is essential for building investor confidence and drawing in capital. According to the theory, capital accumulation and economic expansion are facilitated by a well-developed financial system that is distinguished by strong stock markets and a variety of financial instruments.

This assertion is supported by empirical data. For instance, Alade and Adegbite (2022) discovered that nations with strong capital markets had greater rates of gross capital formation because it was easier to obtain long-term funding for industrial and infrastructure projects. This emphasises how crucial institutional reforms and financial innovation are to enhancing market efficiency, which in turn promotes gross capital formation.

2.7 Review of Empirical Studies

Yao and Lin (2024) investigated capital formation and financial innovation in underdeveloped nations. This study examined the effects of financial innovation (such as digital payments and mobile banking) on gross capital formation in ten emerging nations between 2010 and 2022 using the Difference-in-Differences (DiD) method. By facilitating better access to credit and lowering transaction costs, financial innovation greatly expanded financial inclusion, which in turn improved gross capital formation. In order to maintain growth in gross capital formation, the authors argued for policies that encourage the adoption of financial technology (FinTech) and digital literacy.

Regression analysis using time-series data from 2000 to 2021 was used in Lawal et al.'s (2023) investigation of financial intermediaries and domestic investment in Nigeria to examine the function of financial intermediaries in mobilising savings for domestic investments in Nigeria. It was discovered that banks and other financial intermediaries greatly enhanced the mobilisation of domestic savings, which had a direct impact on gross capital formation. However, this relationship's usefulness was diminished by banking system inefficiencies. To increase the contribution of financial intermediaries to gross capital formation, it was suggested that the banking industry be made more efficient through the use of new technologies and efficient regulation.

In their article on inflation and foreign direct investment (FDI) in Vietnam, Nguyen and Tran (2023) used panel data analysis to examine the connection between inflation and gross capital creation in Vietnam between 2005 and 2021. While high inflation had a detrimental effect on long-term

investments, moderate inflation encouraged savings, which had a favourable effect on gross capital formation. It was suggested that monetary policies be put in place to keep inflation within ideal bounds in order to guarantee a favourable atmosphere for capital development.

Eke and Obasi (2023) wrote on financial reforms and capital formation in Nigeria. This study employed Structural Equation Modeling (SEM) to analyze the impact of financial sector reforms on gross capital formation in Nigeria between 2000 and 2020. Reforms aimed at financial inclusion and credit accessibility significantly boosted capital formation by facilitating access to credit for small and medium enterprises (SMEs). Sustained reforms targeting rural financial inclusion were suggested to enhance capital formation and overall economic growth.

Duru and Anene (2022) wrote on financial intermediation and economic growth in Nigeria. Using co-integration techniques and the Granger causality test, this study explored the relationship between financial intermediation and gross capital formation in Nigeria from 1990 to 2020. The results revealed a bidirectional causality between financial intermediation and gross capital formation, indicating a mutually reinforcing relationship. Strengthening financial intermediaries and creating incentives for long-term investments were suggested to enhance the economy's capital formation capacity.

Okun and Sulaimon (2023) focused on the impact of financial intermediation in Nigeria’s economic sectors. Their study found that broad money supply and private sector credit were

instrumental in driving industrial and infrastructural growth, contributing to gross capital formation. They recommended increased financial intermediation to sustain these growth dynamics

Uchenna and Adeoye (2023) examined the effect of financial deepening and capital formation in Nigeria. This study used an econometric analysis of time-series data from 1990 to 2020, employing the Autoregressive Distributed Lag (ARDL) approach to explore the relationship between financial deepening (measured by broad money supply and private sector credit) and gross capital formation in Nigeria. The study revealed a significant positive relationship between financial deepening and gross capital formation. Broad money supply and private sector credit were identified as critical drivers of domestic investments. Policymakers were advised to implement strategies to increase financial inclusion and ensure the effective allocation of financial resources to productive sectors to enhance capital formation.

Mensah et al. (2022) talked about how financial liberalisation affected Sub-Saharan Africa's capital formation. This study used the Generalised Method of Moments (GMM) to evaluate the effect of financial liberalisation on capital creation from 2005 to 2020 using a panel data analysis across 15 Sub-Saharan African nations. It was discovered that the region's gross capital formation was greatly increased by financial liberalisation, specifically the lowering of financial constraints and the improvement of market capitalisation. However, the dangers of financial instability were higher in nations with laxer financial laws. It was suggested that financial regulatory frameworks be

strengthened to protect against possible market volatility and to promote capital formation by attracting investment inflows.

West African economic growth and private sector loans were examined by Kalu and Nnadi (2021). This study investigated the dynamic link between private sector lending and economic indices, such as gross capital formation, using panel data from five West African nations and Vector Error Correction Model (VECM) approaches. The results of the analysis demonstrated that, whilst lending to consumption-based activities had little impact, credit to productive sectors greatly increased gross capital formation. To maintain capital formation and economic progress, West African governments should strengthen policies that allocate credit to productive sectors like industry and agriculture.

Choi and Wang (2022) explored the role of market capitalization in economic development, particularly focusing on its impact on capital formation. Their findings indicated that increased market capitalization facilitated higher investment rates, directly influencing capital accumulation in developing economies. The study emphasized that a robust equity market contributes significantly to economic development through enhanced capital formation.

Chowdhury and Islam (2022) investigated investment and the growth of South Asian financial markets. This study examined the effects of financial market development (as measured by market capitalisation and stock turnover) on gross capital formation in four South Asian nations between 2000 and 2019 using the ARDL approach. The findings showed that healthy financial markets

promote domestic capital development, draw in international investment, and lower transaction costs. The authors suggested deepening financial markets to increase market efficiency and draw in long-term investments through legislative changes and technological advancements.

Osei et al. (2021) wrote on stock market development and capital formation in Ghana, this study employed an Ordinary Least Squares (OLS) regression to analyze the role of market capitalization in gross capital formation in Ghana from 2000 to 2020. A robust stock market was found to significantly influence gross capital formation by increasing access to long-term funding for infrastructure and industrial development. The authors advocated for policies to boost investor confidence and expand stock market activities to attract domestic and foreign investments.

Ibrahim and Usman (2021) investigated the effects of financial system development on economic growth in Nigeria. They found that credit to the private sector and stock market development were positively correlated with GDP growth, a key driver of gross capital formation. Their study concluded that improving financial access and deepening capital markets could increase investments, thereby supporting capital formation

Levine (2021) in his review on finance, growth, and inequality emphasizes the role of financial development in fostering economic growth by improving resource allocation and technological change. He notes that a better functioning financial system can reduce transaction costs and facilitate greater capital formation, which in turn accelerates economic growth

Efanga, Ogochukwu, and Ugwuanyi (2020) examined how the Nigerian economy was affected by financial deepening from 1981 to 2018. The Central Bank of Nigeria Statistical Bulletin provided the data used in this investigation. This study used the real gross domestic product as a stand-in for Nigeria's economic growth, while the market capitalisation to GDP ratio, the money supply to GDP ratio, and the private sector credit to GDP ratio were used as regressors. According to the inferential results, the Nigerian economy benefited from financial deepening over the reviewed period.

Eke, Okoye and Evbuomwan (2020), carried out a study on entrepreneurship and financial deepening in selected African economies from 1995- 2014 and evidence from the augmented Toda Yamamoto technique , the result shows that human capital does not have long run causal effect on entrepreneurship , and financial deepening.

Osasere, Bashiru, and Ehis (2020) used annual data from 1990 to 2017 to investigate how financial deepening affected Nigeria's economic growth. To verify the model's long-term equilibrium, multiple regression approaches and an error correction model were employed. Since the ECM result shows a negative and substantial link, the findings showed that the variable has a long-term impact on economic growth. According to the results of the short run test as well, the ratio of private sector credit to GDP (CPS_GDP) and GDP have a negative and negligible connection. Additionally, there is a weak and negative correlation between GDP and the inflation rate (INFL).Furthermore, the result showed that there is a positive and insignificant relationship

between the ratio of gross fixed capital formation to gross domestic product and gross domestic product (GDP).Also, it was found that there is a negative and insignificant relationship between the ratio of money supply to gross domestic product in the economy and gross domestic product (GDP).

For 38 years, from 1981 to 2018, Samuel-Hope, Ehimare, and Osuma (2020) investigated how financial deepening affected Nigeria's growth. Investigating the relationships between the money supply, commercial banks' time and savings deposits, and private sector lending and economic growth were the primary objectives of the study. Data from several CBN Bulletin issues were gathered, and Autoregressive Distributed Lag was used for analysis. According to the analysis's findings, there was a long-term association, but no significant regressor was identified. While money supply to GDP had a positive relationship with economic growth rate, time and savings deposits in commercial banks had a negative impact on national growth, and credit to the private sector had an inverse relationship with GDP growth.

Igwebuike, Udeh and Okonkwo (2019) examined effects of financial deepening on the economic growth of Nigeria (1981 to 2016) through two of the basic arms of the financial industry (Insurance companies and Banking Industry). Secondary data from CBN statistical bulletin and Global Financial Development bulletin, 2017 as provided by the World Bank were utilized. The analytical tool used was Ordinary Least Squares (OLS). It was found that insurance industry premium to GDP has positive but no significant effect while credit to private sector by commercial banks to GDP has positive and significant effect on economic growth in Nigeria.

The effect of financial deepening on the expansion of the Nigerian economy from 1990 to 2016 was studied by Nwolisa and Cyril (2019). This study's primary goal is to assess how market capitalisation, money supply, and private sector credit affect Nigeria's economic growth. The National Bureau of Statistics and the CBN Statistical Bulletin served as the study's data sources. Ordinary least square regression was used to analyse the collected data (OLS). The analysis's findings demonstrated that each of the study's three independent variables significantly influences Nigeria's financial deepening.

Ogbonna (2018), examined the impact of financial deepening on economic growth in Nigeria between 1970 and 2015, using Vector Error Correction Model, Impulse Response Function, and Forecast Error Variance Decomposition, with a distinction between size and activity variables of financial deepening. The results show that financial deepening and economic growth have a stable long-run relationship, and that activity variables of the financial deepening have more stimulating effect on economic growth than the size variables.

Paul (2017) examined the impact of financial deepening on economic growth in Nigeria, using data from secondary sources, (1986-2015). He employed the ordinary Least Square (OLS) technique, Co integration, and Error correction model (ECM) as estimation tools. The results revealed that economic growth in Nigeria in the long-run is influenced by the indices of financial depth. Also financial deepening is positively and significantly related to economic growth.

2.8 Empirical Table

Authors' Citation	Title	Methodology	Findings
Ogbonna (2018)	The Impact of Financial Deepening on Economic Growth in Nigeria	Vector Error Correction Model (VECM), Impulse Response Function, and Forecast Error Variance Decomposition	Financial deepening and economic growth have a stable long-run relationship. Activity variables of financial deepening have a more stimulating effect on economic growth than size variables.
Paul (2017)	Financial Deepening and Economic Growth in Nigeria	Ordinary Least Squares (OLS), Co-integration, and Error Correction Model (ECM)	Economic growth in Nigeria is positively influenced by financial deepening indices in the long run. Financial deepening is significantly related to economic growth.
Nwolisa and Cyril (2019)	The Impact of Financial Deepening on Nigerian Economic Growth	Ordinary Least Squares (OLS)	Private sector credit, money supply, and market capitalization significantly affect financial deepening in Nigeria.
Igwebuike, Udeh, and Okonkwo (2019)	Effects of Financial Deepening on Economic Growth in Nigeria	Ordinary Least Squares (OLS)	Insurance premiums have a positive but insignificant effect, while credit to the private sector by commercial banks has a positive and significant effect on

Authors' Citation	Title	Methodology	Findings
			economic growth.
Samuel-Hope, Ehimare, and Osuma (2020)	Financial Deepening and Nigeria's Growth: A 38-Year Analysis	Autoregressive Distributed Lag (ARDL)	A long-run relationship exists, but credit to the private sector negatively impacts GDP growth. Money supply positively impacts economic growth, while time and savings deposits have a negative impact on national growth.
Efanga, Ogochukwu, and Ugwuanyi (2020)	Financial Deepening in Nigeria	Multiple Regression, Error Correction Model	Financial deepening positively impacts Nigeria's economy, but private sector credit to GDP and inflation rate have an insignificant impact on economic growth.
Eke, Okoye, and Evbuomwan (2020)	Entrepreneurship and Financial Deepening in Selected African Economies	Augmented Toda Yamamoto Technique	Human capital does not have a long-run causal effect on entrepreneurship and financial deepening.
Osei et al. (2021)	Stock Market Development and Capital Formation in Ghana	Ordinary Least Squares (OLS)	A robust stock market significantly influences gross capital formation by increasing access to long-term funding for infrastructure and industrial development.

Authors' Citation	Title	Methodology	Findings
Ibrahim and Usman (2021)	Financial System Development and Economic Growth in Nigeria	Econometric Analysis	Credit to the private sector and stock market development positively correlate with GDP growth, thereby increasing capital formation.
Kalu and Nnadi (2021)	Private Sector Credit and Economic Growth in West Africa	Vector Error Correction Model (VECM)	Credit allocated to productive sectors significantly enhances gross capital formation, while credit to consumption-based activities has negligible effects.
Mensah et al. (2022)	Financial Liberalization and Capital Formation in Sub-Saharan Africa	Generalized Method of Moments (GMM)	Financial liberalization significantly boosts gross capital formation, but countries with weaker financial regulations face higher risks of financial instability.
Chowdhury and Islam (2022)	Financial Market Development and Investment in South Asia	Autoregressive Distributed Lag (ARDL)	Well-functioning financial markets reduce transaction costs, attract foreign investments, and foster domestic capital formation.
Choi and Wang (2022)	Market Capitalization and Economic Development	Econometric Analysis	Increased market capitalization facilitates higher investment rates, directly influencing capital

Authors' Citation	Title	Methodology	Findings
			accumulation in developing economies.
Duru and Anene (2022)	Financial Intermediation and Economic Growth in Nigeria	Co-integration Techniques, Granger Causality Test	There is a bidirectional causality between financial intermediation and gross capital formation. Strengthening financial intermediaries and creating long-term investment incentives were recommended.
Eke and Obasi (2023)	Financial Reforms and Capital Formation in Nigeria	Structural Equation Modeling (SEM)	Financial sector reforms significantly boost capital formation by facilitating access to credit for SMEs. Sustained rural financial inclusion reforms were recommended.
Lawal et al. (2023)	Financial Intermediaries and Domestic Investment in Nigeria	Regression Analysis on Time-Series Data	Financial intermediaries significantly improve domestic savings mobilization, which directly influences gross capital formation. However, inefficiencies in the banking system reduced effectiveness.
Nguyen and	Inflation and	Panel Data Analysis	Moderate inflation positively

Authors' Citation	Title	Methodology	Findings
Tran (2023)	Investment (FDI) in Vietnam		impacts gross capital formation, while high inflation negatively affects long-term investments. Monetary policies to maintain optimal inflation levels were recommended.
Okun and Sulaimon (2023)	Financial Intermediation in Nigeria's Economic Sectors	Econometric Analysis	Broad money supply and private sector credit drive industrial and infrastructural growth, contributing to gross capital formation.
Uchenna and Adeoye (2023)	Financial Deepening and Capital Formation in Nigeria	Autoregressive Distributed Lag (ARDL)	Financial deepening significantly boosts gross capital formation in Nigeria. Broad money supply and private sector credit are key drivers of domestic investment.
Bechtini and Khalfaoui (2024)	Financial Development and Outward Foreign Direct Investment in G7 Countries	Econometric Analysis	Well-developed financial systems significantly influence FDI inflows, thereby fostering capital formation in host countries.
Yao and Lin (2024)	Financial Innovation and Capital Formation	Difference-in-Differences (DiD)	Financial innovation, such as mobile banking and digital

Authors' Citation	Title	Methodology	Findings
	in Developing Economies	Approach	payments, enhances gross capital formation by improving financial inclusion, access to credit, and reducing transaction costs.

Source: Author's compilation (2025)

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents a detailed account of how the study will be carried out, while revealing the research methods to be used in the study. This study focuses on the effect of financial system development and gross capital formation in Nigeria. It is sub-divided into a number of sections which include research design, population and sampling, sources of data collection, model specification and operationalization of variables and techniques of data analysis.

3.2 Research Design

The study will adopt *expost-facto* research design. This type of research is undertaken after the events have taken place and the data are already in existence. The choice of the design was based on the fact that the variables under consideration are historical in nature and therefore the researcher lacks the ability to manipulate the input and output variables due to the fact that they have already occurred.

3.3 Population and Sample of the study

The population of the study is Nigeria as a whole, it encompasses key economic variables and data related to Nigeria's financial system development and gross fixed capital formation (GFCF). Specifically, the study focuses on the financial and economic metrics of the Nigerian economy,

including financial openness, financial deepening, market capitalization, value of stocks traded, insurance penetration and gross fixed capital formation as reported by financial institutions, government agencies, and international organizations between the period of 2015 – 2023. Also, the study adopts the census sampling method, where the sample is the same as the population, here aggregate data will be used. This will be done through a comprehensive review of financial report and public disclosures in Nigeria during the period of the study.

3.4 Sources of Data

The study relies on secondary data collected from reliable macroeconomic datasets. The primary sources include:

1. Central Bank of Nigeria (CBN) statistical bulletins for monetary and financial sector indicators.
2. National Bureau of Statistics (NBS) for inflation rates, economic growth, and related metrics.
3. World Bank Development Indicators (WDI) and IMF databases for gross capital formation and global comparisons.
4. Nigerian Stock Exchange (NSE) for market capitalization and stock market data.

3.5 Model Specification

To analyze the effect of financial system development on gross capital formation, the study employs a linear regression model based on economic theory and prior empirical studies. The model is specified as follows:

General Functional Form:

GFCF = *f*(FINOPEN, FNDEEP, MACAP, VASTOC, INSPEN, TOPREM)

Econometric Model:

$GFCF_t = \beta 0 + \beta 1\ FINOPEN_t + \beta 2\ FNDEEP_t + \beta 3\ MACAP_t + \beta 4\ VASTOC_t + \beta 5\ INSPEN_t + \beta 6\ TOPREM_t + \epsilon t$

Where:

GFCF = Gross Fixed Capital Formation (dependent variable)

FINOPEN = Financial Openness (independent variable)

FNDEEP = Financial Deepening (independent variable)

MACAP = Market Capitalization (independent variable)

VASTOC = Value of Stock Traded (independent variable)

INSPEN = Insurance Penetration (independent variable)

TOPREM = Total Insurance Premium (independent variable)

$\beta 0$ = Intercept

$\beta 1, \beta 2, \beta 3, \beta 4, \beta 5, \beta 6$ = Coefficients of the independent variables

ϵt = Error term

3.6 Operationalization of Variables

Operationalization is the process by which a researcher defines how a concept is measured, observed or manipulated within a particular study. This process translates the theoretical, conceptual variables of interest into a set of specific study.

VARIABLES	DEFINITIONS	MEASUREMENTS & SOURCES	APRIORI SIGN
Gross Fixed Capital Formation (GFCF)	GFCF represents the net increase in physical assets (such as buildings, machinery, and infrastructure) within a country during a specific period, excluding depreciation.	Gross fixed capital formation is measured as a percentage of GDP, It reflects the proportion of national income directed toward investment in physical assets.	
Financial Openness	Financial openness refers to the degree to which a country's	Measured as Foreign Direct Investment (FDI) inflows as a	+

(FINOPEN)	financial system is open to international transactions, investments, and influences.	percentage of GDP	
Financial Deepening (FINDEEP)	Financial deepening refers to the process of increasing the size and complexity of a country's financial system, including the development of new financial instruments, institutions, and markets.	M2/GDP ratio (M2 is a measure of the money supply, including currency, deposits, and other liquid assets).	+
Market Capitalization (MACAP)	The total market value of listed companies' equity as a percentage of GDP, reflecting the depth and size of the stock market.	Measured as a percentage of GDP, sourced from the Nigerian Stock Exchange (NSE) and World Bank databases.	+
Value of Stock traded (VASTOC)	The value of traded stocks refers to the total value of shares traded on a country's stock exchange	Measured as the total value of shares traded in the country at time t	+

	over a given period.		
Insurance Penetration (INSPEN)	Insurance penetration refers to the extent to which insurance services are used by individuals and businesses within a country.	Measured as insurance premium as a percentage of GDP	+
Total Insurance Premium (TOPREM)	Total insurance premium refers to the total amount of premiums paid by individuals and businesses within a country in a particular year.	Measured as total premium collected in a single year.	+

Source: Author's compilation (2025)

3.7 Method of Data Analysis

The descriptive statistics will be used to describe the data set using the mean, maximum and minimum values, standard deviation, skewness, kurtosis, and the Jarque-Bera statistic. Skewness, kurtosis and the Jarque-Bera statistics are used to explain the distribution properties of the data. The correlation analysis is used to determine the linear relationship between the variables pair wisely. The study employs the integration test and error correction model (ECM) technique for the main analysis. This analysis will be carried out using statistical software, E-views (10).

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter examined the effects of financial system development and gross fixed capital formation in Nigeria using the method of analysis earlier established in chapter three. The unit root test was use to examine the stationarity properties of the data. Lastly, the cointegration analysis and error correction method (ECM) were employed for the main analysis of the study.

4.2 Unit Root Analysis

The Augmented Dickey Fuller (ADF) test is employed in order to analyze the unit roots. The results are presented in levels and first difference in Table 4.1. In the result, the ADF test statistic for each of the variables is shown in the second and fifth column, while the 95 percent critical ADF value is shown in the third and sixth column respectively. The result indicates that all the variables are not stationary at level (see panel 1). However, after the first difference was taken, all the variables were now stationary (see panel 2). This implies that the variables are actually difference-stationary, attaining stationarity after the first differences of the variables. Thus, we would accept the hypothesis that the variables possess unit roots. Indeed, the variables are integrated of order one (i.e. I[1]).

Table 4.1: Unit Root Tests

At Levels Panel 1				First Difference Panel 2		
Variable	**ADF Test Statistic**	**95% Critical ADF Value**	**Remark**	**ADF Test Statistic**	**95% Critical ADF Value**	**Remark**
GFCF	-2.141099	-2.943427	Non-Stationary	-10.57833	-2.948404	Stationary
FINOPEN	-5.298929	-2.943427	Non-Stationary	-6.703861	-2.948404	Stationary
FNDEEP	-0.662351	-2.943427	Non-Stationary	-5.593875	-2.945842	Stationary
MACAP	2.591235	-2.943427	Non-Stationary	-4.919221	-2.945842	Stationary
VASTOC	-2.036096	-2.943427	Non-Stationary	-7.311519	-2.945842	Stationary
INSPEN	-2.081789	-2.943427	Non-Stationary	-6.929098	-2.948404	Stationary
TOPREM	-2.623123	-2.943427	Non-Stationary	-7.063777	-2.948404	Stationary

Source: Author's Computation (2025)

4.3 Cointegration Analysis

Having established that the series in the analysis are not stationary in their levels, we move on to determine if they are cointegrated. The Johansen system of cointegration method was employed as indicated in Table 4.2 below. The eigenvalue test (λ-max) and the trace test statistics indicate that there are about three significant cointegrating vectors between gross fixed capital formation (GFCF)

and financial system development in Nigeria. This implies that a long run relationship exists among these hypothesized variables in Nigeria.

Table 4.2: Johansen Multivariate Cointegration Tests Results

Trace Test				**Maximum Eigenvalue Test**		
Null Hypothesis	Test Statistic	Critical Value	Prob.	Test Statistic	Critical Value	Prob.
r = 0*	153.1334	125.6154	0.0004*	52.56306	46.23142	0.0093*
r ≤ 1	100.5704	95.75366	0.0224*	36.48266	40.07757	0.1203
r ≤ 2	64.08770	69.81889	0.1316	23.64287	33.87687	0.4819
r ≤ 3	40.44483	47.85613	0.2070	16.44623	27.58434	0.6277
r ≤ 4	23.99860	29.79707	0.2005	15.51648	21.13162	0.2544
r ≤ 5	8.482118	15.49471	0.4154	8.479272	14.26460	0.3321
r ≤ 6	0.002846	3.841466	0.9549	0.002846	3.841466	0.9549

Source: Author's Compilations (2025)

4.4 The Error Correction Model (ECM) Results

The short-run dynamics of the behaviour of gross fixed capital formation in the context of short-term movements in financial system development variables is captured within an error correction model (ECM). The error correction representations for the selected ARDL models is presented in Table 4.3, and the R-Bar squared criterion was used for the selection of the parsimonious equation. The ECM results indicates a quite impressive goodness of fit. The R-squared value of 0.69 indicates that over 69 percent of the systematic variation in gross fixed capital formation is

explained by the explanatory variables and the ECM term. Even the R-Square Bar value of 0. 60 is very high and indicates that the model predictive value is very high. The F-statistic value of 7.5344 is very high and easily passes the significance test even at the 1 percent level. Thus, we cannot reject the hypothesis of a significant linear relationship between gross fixed capital formation and all the independent variables combined in the short run.

A close examination of the individual coefficients of the variables reveals that the coefficients of financial openness (FINOPEN) and value of stock traded (VASTOC) has a weak negative relationship with gross fixed capital formation (GFCF) in Nigeria; meaning that, despite the level of openness of the financial system coupled with the attendant increase in the value of total listed stocks in the Nigeria Exchange Limited (NGX), they do not play any significant role in enhancing the level of gross fixed capital formation (GFCF) in Nigeria in the short run. Even the negative sign is an indication that the variables have the tendency of reducing GFCF. This finding agrees with those of Nwakanma and Ibe (2021), Donwa and Odia (2009), Osamwonyi and Kasimu (2013), Ebun, Olasuyi and Micheal (2018) who found a weak relationship between financial openness (FINOPEN), value of stock traded (VASTOC) and gross fixed capital formation (GFCF). The finding however does not agree with those of Adegboyega and Odusanya (2020), Nketiah, Cai, Adjei and Boamah (2020), Chen and Quang (2022), Ahmed (2021), Sara (2020), Wild and Lebdaoui (2021), Bayar, Kaya, and Yidrim (2019), Radikoko, Mutobo and Mphoeng (2019) who found that FINOPEN and VASTOC significantly and positively affect GFCF, as well as those of

Fratzscher and Bussiere (2017), Getie and Haiyun (2019) who submitted that FINOPEN and VASTOC significantly and negatively affect GFCF in their respective studies.

The coefficient of financial deepening (FNDEEP) has significant positive relationship with gross fixed capital formation (GFCF) in Nigeria. The variable passes the 5 percent significance level, suggesting that it is a potent factor for determining the level of gross fixed capital formation (GFCF) in Nigeria in the short run. Indeed, the result demonstrates that as the level of FNDEEP increases in the country, gross fixed capital formation (GFCF) improves by approximately 1.25E+09 percent. This finding strongly corroborated those of Chen and Quang (2022), Ahmed (2021, Paul (2017), Nwafor and Yomi (2017), Karimo and Ogbonna (2019), Ahonkhai (2019), Ighoroje and Okoroyibo (2020), Aigbovo and Uwubamwen (2014), who found significant positive impact of FNDEEP on GFCF. It nevertheless refute the findings of Nzotta and Okereke (2019), John and Ibenta (2019) who observed significant negative, as well as those of Nwakanma and Ibe (2021) who observed no impact of FNDEEP on gross fixed capital formation (GFCF).

The coefficient of market capitalization (MACAP) which is one of the measurements of financial system development failed the 5 percent significance level, suggesting that the variable is not a relevant factor in the determination of gross fixed capital formation (GFCF) in Nigeria in the short run. However, those of insurance penetration (INSPEN) and total insurance premium (TOPREM) has significant negative relationship with gross fixed capital formation (GFCF); both variables passed the 5 percent and 1 percent significance levels. This means that INSPEN and TOPREM are very central to ascertaining gross fixed capital formation in Nigeria within the short run. However,

the negative signs suggest that increases in these variables reduce over gross fixed capital formation (GFCF) in Nigeria by approximately -1078594 and -9996.596 percent respectively. This finding as it relates to MACAP is seen to strongly corroborate those of Nwakanma and Ibe (2021), Donwa and Odia (2009) who concluded a weak positive relationship between MACAP and GFCF. The finding however disagreed with the findings of Ologunwa and Sadibo (2019), Niranjala (2019), Ologunwa and Sadibo (2019), Ashamu and Soyebo (2020); as well as those of Uchenna, Nwanneka, Taiwo, and Emena (2020), Radikoko, Mutobo and Mphoeng (2019) who found that MACAP has significant positive and negative relationship with gross fixed capital formation (GFCF). On the other hands, with respect to INSPEN and TOPREM, the finding corroborated with those of Fashagba (2018), Nkoro, Ikue-John and Nwatah (2019) who found significant inverse effect of with GFCF. However, it does not agree with those of Nwafor (2017), Iyodo, Samuel and Inyada (2018), Aigbovo and Iroh (2021), Oke (2022), Eze and Okoye (2023), Olayungbo (2018), Lyndon (2019) who submitted significant positive impact of INSPEN and TOPREM on GFCF; as well as those of Nwakanma and Ibe (2021), Donwa and Odia (2009) who found no significant relationship between INSPEN, TOPREM and gross fixed capital formation (GFCF) in their respective studies.

The lagged value of gross fixed capital formation DGFCF(-2) is significant at the 1 percent level. This suggests that the previous value of GFCF significantly impact GFCF than the current value. The error correction term is rightly signed and is also significant at the 1 percent level. The negative sign implies that any short-term deviation of GFCF from equilibrium in the short-run will be restored in the long run. The high value (-0.656512) of the error correction term means that

adjustment to equilibrium in the long run is low. The ECM term shows that about 65 percent of long run adjustment to equilibrium is made during the first year. The DW statistic value of 1.50 shows the absence of autocorrelation problem in the model.

Table 4.3: The Short-Run Dynamic Model for Financial System Development and Gross Fixed Capital Formation in Nigeria

Variables	Coefficient	T-Ratios	Prob.
Constant	1.64E+09	1.905105	0.0679
DFINOPEN	-900.2373	-1.488371	0.1487
DFNDEEP	1.25E+09	2.538991	0.0174*
DMACAP	2514.307	0.008692	0.9931
DVASTOC	-4205879.	-1.813582	0.0813
DINSPEN	-1078594.	-2.397880	0.0240*
DTOPREM	-9996.596	-3.101770	0.0046**
ECM(-1)	-0.656512	-4.040230	0.0004**
DGFCF(-2)	-0.528309	-4.209703	0.0003
$R^2 = 0.69$	$\overline{R}^2 = 0.60$	F = 7.5344	DW Stat. = 1.50

Source: Author's Compilations (2025). *Sig 5%; **Sig 1%

4.5 The Long Run Analysis

In Table 4.4, the long run behaviour of gross fixed capital formation (GFCF) in relation to financial system development is analyzed by the OLS estimation of the GFCF equation. The result has a

very impressive goodness of fit information. It is seen that the R squared value of 0.70 is very high and it indicates that the explanatory variables in the model effectively tract the long run variations in the dependent variable with about 70 percent. Even the adjusted R squared value of 0.63 is equally very high, indicating that the model possesses a high predictive ability. The F-values of 9.539359 is very high and significant at the 1 percent levels. Thus, we cannot reject the hypothesis of a significant linear relationship between the dependent variable (gross fixed capital formation (GFCF)) and all the explanatory variables combined in the long run.

Looking at the individual coefficients of the variables in Table 4.4 below, we observed that only the coefficient of market capitalization (MACAP) (one of the financial system development variables) that has significant positive relationship with gross fixed capital formation (GFCF) in Nigeria in the long run. All the other variables such as financial openness (FINOPEN), financial deepening (FNDEEP), value of stock traded (VASTOC), insurance penetration (INSPEN) and total insurance premium (TOPREM) failed the 5 percent significance levels. It therefore follows that, in the determination of the level of gross fixed capital formation (GFCF) in Nigeria, these hypothesized financial system variables do not play any relevant role. Indeed, the result of the MACAP demonstrated that as market capitalization of all equity shares in the stock market rises the overall growth of GFCF also rises with about 289487.0 percent approximately. This simply suggests that, in the long run, MACAP is a critical factor for determining/enhancing gross fixed capital formation (GFCF) in Nigeria; hence, government and indeed relevant policy makers must place special attention on the activities in the Nigerian Exchange Limited (NGX), particularly as it

relates to MACAP with a view to ensuring that MACAP continues to provide necessary impetus for stimulating GFCF in Nigeria. This finding can be seen to strongly corroborate with those of Ologunwa and Sadibo (2019), Niranjala (2019), Ologunwa and Sadibo (2019), Ashamu and Soyebo (2020) who found that MACAP significantly and positively impact gross fixed capital formation (GFCF). However, it disagreed with those of Popoola, Ejemojovwi, Alege, Adu and Onabote (2017), Radikoko, Mutobo and Mphoeng (2019) who found significant negative effect on GFCF; as well as those of Osamwonyi and Kasimu (2013), Ebun, Olasuyi and Micheal (2018) who submitted that MACAP does not significantly affect gross fixed capital formation (GFCF).

More specifically therefore, the weak negative effects of value of stock traded (VASTOC), insurance penetration (INSPEN) and total insurance premium (TOPREM) suggests that they even have the tendency of reducing GFCF in Nigeria in the long run. The DW statistics value of 1.61 shows that there is no autocorrelation problem in the model for this study.

Table 4.4: The Long Run Relationship between Financial System Development and Gross Fixed Capital Formation in Nigeria

Variables	Coefficient	T-Ratios	T-Ratios
Constant	4.59E+10	4.733935	0.0001
LFINOPEN	-1415.487	-1.140826	0.2636
LFNDEEP	8.44E+08	1.716572	0.0971
LMACAP	289487.0	2.082480	0.0466*
LVASTOC	-1212793.	-0.367552	0.7160
LINSPEN	-284896.6	-0.340983	0.7357
LTOPREM	-8929.581	-1.378226	0.1790

LGFCF(-2)	-0.011032	-0.055175	0.9564
$R^2 = 0.70$	$\overline{R}^2 = 0.63$	F = 9.539359	DW Stat. = 1.61

Source: Author's Compilations (2025). Note: *Sig at 5%

4.6 Breusch-Godfrey Serial Correlation LM Test

To test whether the residuals from the model are serially correlated in the estimation, we used the Breusch-Godfrey Serial Correlation LM Test as indicated in Table 4.5 below. Indeed, from the result, since the null hypothesis is that the residual are serially uncorrelated, and the F-Statistic p-value of 0.5958 indicates that we will fail to reject the null. Therefore, the residuals are serially uncorrelated.

Table 4.5: Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.288231	Prob. F(1,27)	0.5958
Obs*R-squared	0.380249	Prob. Chi-Square(1)	0.5375

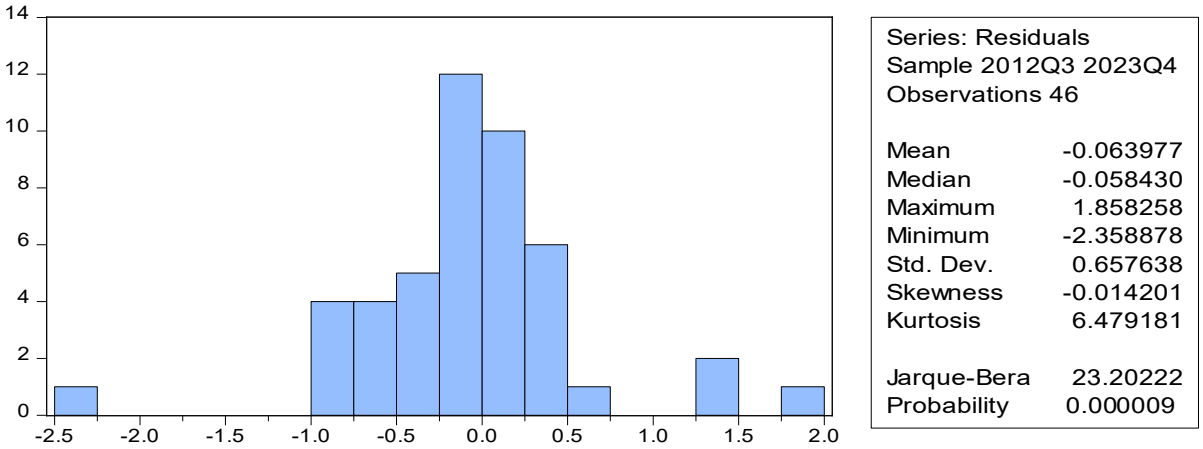
Source: Author's Compilation (2025)

4.7 Normality Test

To test for normality test, we employed the histogram normality test (HNT). According to this test, the null hypothesis is that the residual are normally distributed, while the alternative hypothesis is that the residual are not normally distributed. Thus, if the probability value of the Jarque-Bera

statistics is greater than 0.05 (5%), then we accept the null hypothesis that the residual are normally distributed; but if the probability value of the Jarque-Bera statistics is less than 0.05 (5%), then we reject the null hypothesis that the residual are not normally distributed. Therefore, since the probability value (0.00009) of the Jarque-Bera statistics in Figure 4.1 is less than 0.05 (5%), we conclude that the data set are not normally distributed.

Figure 4.1: Histogram Normality Test



Source: Author Computation (2025) from Eview 10 output

4.8 Discussion of Findings

Market capitalization (MACAP) represents the aggregate value of companies' stock values (Jaya & Sundar, 2012), and it also takes into account the current market price, which reflects the current value and the total number of shares which reflects the size of a company and gives a clear picture of the market value of a company in the stock market. In this study, market capitalization (MACAP) has proven to be a veritable instrument for actualizing rapid gross fixed capital formation (GFCF)

in Nigeria in the long run. Indeed, it has demonstrated that a unit increase in MACAP will bring about approximately 289487.0 percent increase in the GFCF. This means that financial system development, for which market capitalization (MACAP) is an integral component is very critical for gross fixed capital formation on the account that it needs more resources to foster growth and development in all sectors. These resources can easily be harnessed in the domestic stock market for long term basis. Therefore, with the openness of the financial system, more foreign investors are attracted to the domestic stock market, and this mean more inflow of foreign capital to strengthen the depth of the market from which the government and corporate bodies can source for long term funds for investment in acquisitions of new or existing fixed assets (GFCF) by the business sector, governments and "pure" households for further creation of capital goods. There is need therefore for the government and policy makers to appropriately take advantage of the stock market for acquisition of fixed assets/long term capital formation in order to fast tract the rapid growth of the Nigerian economy at large. This finding is seen to strongly corroborate with those of Ologunwa and Sadibo (2019), Niranjala (2019), Ologunwa and Sadibo (2019), Ashamu and Soyebo (2020) who found that MACAP significantly and positively impact gross fixed capital formation (GFCF). However, it disagreed with those of Popoola, Ejemojovwi, Alege, Adu and Onabote (2017), Radikoko, Mutobo and Mphoeng (2019) who found significant negative effect on GFCF; as well as those of Osamwonyi and Kasimu (2013), Ebun, Olasuyi and Micheal (2018) who submitted that MACAP does not significantly affect gross fixed capital formation (GFCF).

Conversely, the outcome of this study in relation to the other hypothesized financial system development variables such as financial openness (FINOPEN), financial deepening (FNDEEP), value of stock traded (VASTOC), insurance penetration (INSPEN) and total insurance premium (TOPREM) were found to have weak negative and positive relationship with gross fixed capital formation (GFCF) in Nigeria in the long run. The implication of this is that, in the long run, none of these variables play any relevant role in promoting gross fixed capital formation in the country. This is rather surprising because, theoretically, it is expected that they should significantly and positively influence the growth of GFCF, but it proves otherwise. This might not be unconnected with the fact that the current state of financial openness in Nigeria is not encouraging and is still far from expectation because of several noticeable malfeasances, restrictions, manipulations and corrupt tendencies. These can hinder foreign investors from investing in the domestic market.

Also, the level of the depth of the Nigerian Stock Exchange is still very low in view of the small number of listed firms (in the four segments of the market) compared to its counterparts in the developed world. For instance, there are only 393 listed securities, made up of about 151 listed companies such that 8 are from the Premium Board, 133 from the Main Board, 7 from Growth Board, and 3 from the ASeM Board, 157 Fixed Income Securities among others; Green Bonds and Sukuk (106 FGN, 8 State and 43 Corporate Bonds) respectively. All these are grossly inadequate to effectively mop up the right amount of huge resources to actually acquire fixed assets/long term capital formation to take the country to Eldorado. So, if we must get there (the place of Eldorado), there must be a genuine efforts from leadership and regulators to revamp the current state of the

Nigerian Exchange Limited (NGX) by coming up with new policy that will encourage more entrance of companies to be listed on the exchange by lowering the current listing fees and other associated charges that have stood as major obstacles for listing of companies that are interested in it. This step and few others will go a long way to improving the depth of the market (in terms of funds) for more participants/investors both locally and international. With this, the government and corporate bodies can mop up huge resources for investment and developmental purposes, and by extension, improvement in aggregate gross fixed capital formation (GFCF) in Nigeria.

Lastly, the significant positive and negative effects of financial deepening (FNDEEP), insurance penetration (INSPEN) and total insurance premium (TOPREM) on gross fixed capital formation (GFCF) in the short run, is a simple demonstrated of the fact that these variables are only effective in predicting and enhancing gross fixed capital formation (GFCF) in Nigeria within the short run. Therefore, short term strategy for improving GFCF through the financial system development variables (FNDEEP, INSPEN and TOPREM) should equally be developed by appropriate authorities in Nigeria. The finding in relation to FNDEEP strongly corroborated those of Chen and Quang (2022), Ahmed (2021, Paul (2017), Nwafor and Yomi (2017), Karimo and Ogbonna (2019), Ahonkhai (2019), Ighoroje and Okoroyibo (2020), Aigbovo and Uwubamwen (2014), who found significant positive impact of FNDEEP on GFCF; but refute the findings of Nzotta and Okereke (2019), John and Ibenta (2019) who observed significant negative, as well as those of Nwakanma and Ibe (2021) who observed no impact of FNDEEP on gross fixed capital formation (GFCF) in the short run. As it relates to INSPEN and TOPREM, the finding corroborated with those of

Fashagba (2018), Nkoro, Ikue-John and Nwatah (2019) who found significant inverse effect of with GFCF. However, it does not agree with those of Nwafor (2017), Iyodo, Samuel and Inyada (2018), Aigbovo and Iroh (2021), Oke (2022), Eze and Okoye (2023), Olayungbo (2018), Lyndon (2019) who submitted significant positive impact of INSPEN and TOPREM on GFCF; as well as those of Nwakanma and Ibe (2021), Donwa and Odia (2009) who found no significant relationship between INSPEN, TOPREM and gross fixed capital formation (GFCF) in their respective studies.

4.9 Test of Hypotheses

Hypothesis One: We hypothesized that, there is no significant relationship between financial openness (FINOPEN) and gross fixed capital formation (GFCF) in Nigeria. However, on the basis of the results obtained from the empirical investigation (see Table 4.4: t-Stat. = -1.140826; Prob. Value = 0.2636), it was observed that FINOPEN does not significantly influence gross fixed capital formation in Nigeria. Therefore, we accept the null hypothesis and reject the alternative hypothesis.

Hypothesis Two: It was hypothesized that financial deepening (FNDEEP) does not significantly affect gross fixed capital formation (GFCF) in Nigeria. However, in the long run, the results obtained from the empirical analysis of data (see Table 4.4: t-Stat. = 1.716572; Prob. Value = 0.0971), it was discovered that financial deepening has a weak positive effect on gross fixed capital formation in Nigeria. Hence, while the null hypothesis is accepted, the alternative hypothesis is rejected in this regard. However, on the basis of the short run result where FNDEEP was

significantly related to GFCF, the null hypothesis is rejected while the alternative hypothesis is accepted (see Table 4.3: t-Stat. = 2.538991; Prob. Value = 0.0174)

Hypothesis Three: It was hypothesized that ratio of market capitalization to GDP does not have significant impact on gross fixed capital formation in Nigeria. Notwithstanding, the results from the analysis of data in Table 4.4 (t-Stat. = 2.082480; Prob. Value = 0.0466), it was clear that MACAP is a significant factor in the determination of gross fixed capital formation in Nigeria during the investigating period. Thus, while the null hypothesis is rejected, the alternative hypothesis is accepted.

Hypothesis Four: It was hypothesized that there is no significant relationship between ratio of stock market value traded to GDP (VASTOC) and gross fixed capital formation in Nigeria. Notwithstanding, the results from the analysis of data in Table 4.4 (t-Stat. = -0.367552; Prob. Value = 0.7160), it was clear that VASTOC is not a significant factor in the determination of gross fixed capital formation in Nigeria. Thus, the null hypothesis holds while the alternative hypothesis is accepted.

Hypothesis Five: It was hypothesized that insurance penetration (INSPEN) does not significantly affect gross fixed capital formation in Nigeria. However, in the long run, the results obtained from the empirical analysis of data (see Table 4.4: t-Stat. = -0.340983; Prob. Value = 0.7357), it was discovered that INSPEN has a weak negative effect on gross fixed capital formation in Nigeria. Hence, while the null hypothesis is accepted, the alternative hypothesis is rejected in this regard. However, on the basis of the short run result where INSPEN was significantly related to GFCF,

hence, the null hypothesis is rejected while the alternative hypothesis is accepted (see Table 4.3: t-Stat. = -2.397880; Prob. Value = 0.0240)

Hypothesis Six: It was hypothesized that total insurance premium (TOPREM) does not have significant impact on gross fixed capital formation in Nigeria. However, in the long run results obtained from the empirical analysis of data (see Table 4.4: t-Stat. = -1.378226; Prob. Value = 0.1790), it was discovered that TOPREM does not significantly affect gross fixed capital formation (GFCF) in Nigeria. Hence, while the null hypothesis is accepted, the alternative hypothesis is rejected in this regard. However, on the basis of the short run result where TOPREM was found to be significantly related to GFCF, hence, the null hypothesis is rejected while the alternative hypothesis is accepted (see Table 4.3: t-Stat. = -3.101770; Prob. Value = 0.0046)

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSON AND RECOMMENDATIONS

5.1 Summary of Findings

The study examined the impact of financial system development on gross fixed capital formation in Nigeria. On the basis of the empirical analysis in chapter four, the following specific findings are made:

(i) That financial openness (FINOPEN) has a weak negative relationship with gross fixed capital formation (GFCF) in Nigeria both in the short run and in the long run. Hence, it is not a major determinant of GFCF in Nigeria.

(ii) That financial deepening (FNDEEP) is a significant determinant of gross fixed capital formation (GFCF) in Nigeria in the short run; but in the long run, it does not have any significant impact on gross fixed capital formation (GFCF) in Nigeria.

(iii) That market capitalization (MACAP) has a weak positive effect on gross fixed capital formation (GFCF) in the short run; but in the long run, it is a potent factor for determining gross fixed capital formation (GFCF) in Nigeria. The variable was found to have significant positive relationship with GFCF.

(iv) That value of stock traded (VASTOC) does not have significant impact on gross fixed capital formation (GFCF) in Nigeria both in the short run and in the long run. The variable has a weak negative relationship with GFCF.

(v) That insurance penetration (INSPEN) has a significant negative relationship with gross fixed capital formation (GFCF) in the short run; but in the long run, it does not significantly affect gross fixed capital formation.

(vi) That in the short run, total insurance premium (TOPREM) is a significant factor in the determination of gross fixed capital formation (GFCF), as the variable was negatively signed and also passed the 1 percent significance level. However, in the long run, the variable (TOPREM) does not have significant effect on GFCF, as it failed the 5 percent significant level.

5.2 Conclusion

The role of financial system development in enhancing gross fixed capital formation (GFCF) is well documented in the extant literature. There is a general consensus coupled with theoretical expectation that financial system development should positively influence/enhance gross fixed capital formation (GFCF) in an economy. Given this preposition, and in order to ascertain the extent to which financial system development has impacted GFCF in Nigeria, this current study was carried out, using annual time series data covering the period 1986 to 2023. Six (6) financial system development related variables such as financial openness (FINOPEN), financial deepening (FNDEEP), market capitalization (MACAP), value of stock traded (VASTOC), insurance penetration (INSPEN) and total insurance premium (TOPREM) (as independent variables) were analyzed in relation to gross fixed capital formation (GFCF) (as dependent variable). The error

correction model (ECM) and the cointegration econometric technique was employed in the analysis of data and the results generally indicate that, in the long run, only market capitalization (MACAP) has significant positive relationship with GFCF; the other variables (FINOPEN, FNDEEP, VASTOC, INSPEN and TOPREM) do not have any significant effect on GFCF in Nigeria in the long run. With respect to the short run results, financial deepening (FNDEEP) has significant positive effect on GFCF; insurance penetration (INSPEN) and total insurance premium (TOPREM) has significant inverse relationship with gross fixed capital formation (GFCF) in Nigeria. The rest hypothesized variables do not play any relevant role in the determination of GFCF in Nigeria. The study therefore conclude that, market capitalization (MACAP) is a very potent financial system development variable for enhancing GFCF in Nigeria in the long run; while in the short run, deepening (FNDEEP), insurance penetration (INSPEN) and total insurance premium (TOPREM) are relevant factors to be considered in terms of improving the level of gross fixed capital formation (GFCF) in Nigeria.

5.3 Recommendations

Based on the findings of this study, the following specific recommendations are made:

First, since market capitalization (MACAP) has proven to be a critical factor for determining/enhancing gross fixed capital formation (GFCF) in Nigeria, government and indeed relevant policy makers must place special attention on stock market activities in the Nigerian Exchange Limited (NGX), particularly as it relates to MACAP with a view to taping the necessary

huge funds from the market to provide necessary impetus for stimulating GFCF in Nigeria. With daily increases in the level of market capitalization, more foreign investors will be attracted into the domestic market because it signals that the market is performing very well.

Secondly, there should be genuine efforts on the parts of leadership (government) and regulators to revamp the current state of the Nigerian Exchange Limited (NGX). This is very crucial given the weak negative effect of value of stock traded (VASTOC) on GFCF. They should come up with new policy that will encourage more entrance of companies to be listed on the exchange by lowering the current listing fees and other associated charges that have stood as major obstacles for listing of companies that are interested in it. This step and few others will go a long way to improving the depth of the market (in terms of funds) for more participants/investors both locally and international. With this, the government and corporate bodies can mop up huge resources for investment and developmental purposes, and by extension, improves aggregate gross fixed capital formation (GFCF) in Nigeria.

Thirdly, in order to have a higher level of financial openness that will impact positively on GFCF, government should make deliberate efforts to relax all forms of market barriers or restrictions to cross-border capital flows and this will lead to an increase in liquidity in the domestic financial markets, which will in turn allow domestic firms, households, and financial institutions to have better access to funds that are available in the international capital markets.

Lastly, current policy on insurance penetration (INSPEN) and total insurance premium (TOPREM) in the insurance sector of the economy should be urgently reviewed and improve upon. This is

because, the outcome of this study has demonstrated that these two variables are capable of reducing gross fixed capital formation in Nigeria in the short run and while in the long run they are incapable of promoting GFCF. To this end, current collectible premiums should be increased in the face of current reality in the Nigerian economy; this will go a long way to enhance total accruable incomes and in turn help insurance companies acquire funds for investments and for financing economic projects, thereby leading to an enhanced GFCF at large.

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