STOCK MARKET PERFORMANCE AND INSURANCE SECTOR DEVELOPMENT IN NIGERIA

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A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF ACTUARIAL SCIENCE AND INSURANCE FACULTY OF MANAGEMENT SCIENCES, UNIVERSITY OF BENIN, BENIN CITY,EDO STATE.IN PARTIAL FULFILLMENT ON THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCES DEGREE (B.S.C) IN INSURANCE, UNIVERSITY OF BENIN, BENIN CITY.

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DECLARATION

I joy ijeoma AGBONAVBARE do hereby declare that the project is undertaking by me in the department of Actuarial science and insurance faculty of management sciences, university of benin, benin City, Edo state. under the supervision of Dr.B.O Orobator .

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CERTIFICATION

This is to certify that this research work titled, “Stock Market Performance And Insurance Sector Development In Nigeria” was carried out by joy ijeoma AGBONAVBARE with matriculation number MGS2207315 in the Department of Actuarial Science and Insurance, Faculty of Management Sciences, University of Benin, Benin City.

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DEDICATION

This project is dedicated to the Almighty and Everlasting God for his love, strength ,wisdom and mercy upon my life.This work is also dedicated to my amazing parents whose endless love and encouragement have strengthen me all through my journey to school.

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I express my deepest gratitude to God Almighty, who is the author and finisher of my faith because without Him, there would not ever be this project.To my wonderful Parents, Mr & Mrs Agbonavbare, you have been a blessing in love, prayers, moral, financial and spiritual support.Thank you so much for believing in me and sponsoring me throughout my educational level ,God bless you abundantly and may you be alive and well to eat the fruit of your labour . I love you so much Mummy and Daddy. I would not fail to appreciate my amazing siblings (Hope and Rhema) Thank you so much for your love, motivation and support both financially and morally for always checking up on me throughout my stay in school. I am highly blessed having you all .I love you so much and God bless you all mightily.

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ABSTRACT

This study examined the effect of stock market performance on insurance sector development in Nigeria over the period 1990 to 2024. The study was motivated by the need to understand how key indicators of stock market performance influence the growth and stability of the insurance industry, which plays a vital role in financial intermediation and economic development. The specific objectives were to investigate the relationship between market capitalization, all share index, total value of transactions, and market turnover on insurance sector development measured by the insurance penetration rate. An ex-post facto research design was adopted, and the analysis was based on secondary data obtained from the Central Bank of Nigeria Statistical Bulletin, the Nigerian Exchange Limited Factbook, and the National Insurance Commission annual reports. The study employed the Dynamic Ordinary Least Squares (DOLS) estimation technique after confirming the stationarity and cointegration properties of the data using the Augmented Dickey-Fuller and Johansen tests. The empirical results revealed that market capitalization, all share index, total value of transactions, and market turnover each exert a positive and statistically significant impact on insurance sector development in Nigeria. The R-squared value of 0.873 indicates that approximately 87 percent of the variation in insurance sector development can be explained by changes in stock market performance indicators. These findings suggest that improvements in stock market performance enhance the capacity of insurance firms to mobilize funds, expand operations, and contribute to economic growth. The study concludes that a well-functioning and vibrant stock market is essential for the sustainable development of the insurance sector in Nigeria. It therefore recommends strengthening capital market reforms, promoting insurance investment in equities, enhancing regulatory coordination, improving financial literacy, and encouraging technological innovation to deepen the linkage between the stock market and the insurance industry.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The financial market, encompassing the stock market and insurance sector, is pivotal to economic development, as noted by Omotor (2021). In Nigeria, the rapidly growing economy and transforming financial market present opportunities for the insurance sector to flourish, as highlighted by Olagunju and Awe (2022). The stock market's performance, being a critical component of the financial market, can significantly influence other sectors, including insurance, as observed by Alhassan and Biekpe (2023). This influence is particularly important given the insurance sector's role in contributing to economic growth and financial stability through risk management services and mobilization of long-term savings, as emphasized by Adams (2020). However, the Nigerian insurance industry faces challenges such as low penetration, limited awareness, and regulatory issues, as pointed out by Adegbite, Aremu, and Adelowokan (2018). Therefore, examining the factors driving the growth and development of the insurance sector is crucial, with the stock market's performance being a key factor, as its impact on various economic sectors, including insurance, has been demonstrated by Alhassan and Biekpe (2023).

Nigeria's stock market, represented by the Nigerian Exchange Limited (NXE), has experienced significant fluctuations in recent years (Osinubi, Akinkunmi, & Akinlo, 2018). The stock market is an essential source of capital for businesses, including insurance companies, and its performance is a potential indicator of the health and development of the insurance sector (Adeusi, Ajayi, & Oke, 2017). Market capitalization, one of the indicators of stock market performance, has been found to have a positive correlation with the insurance sector's growth (Alhassan & Biekpe, 2023). This is because an increase in market capitalization can lead to more investment opportunities for insurance companies, resulting in their expansion and development (Asante, Agyapong, & Adam, 2021). In the context of Nigeria, market capitalization has experienced significant growth over the past decades (Olagunju & Awe, 2022), which could potentially contribute to the development of the insurance sector.

The all share index, another critical measure of stock market performance, can also impact the insurance sector's development (Ndako, 2023). A rising all share index signifies improved market conditions, which can enhance investor confidence and attract more investment in the insurance sector (Omotor, 2021). In Nigeria, the all share index has shown a positive trend over the years (Olagunju & Awe, 2022), which could be an essential factor influencing the development of the insurance sector.

Total value of transactions, a measure of stock market liquidity, can also affect the insurance sector's growth. A high total value of transactions indicates increased market

liquidity, which can promote the insurance sector's development by providing more investment opportunities (Asante et al., 2021). A higher total value of transactions indicates increased liquidity in the market, which could impact the insurance sector by providing insurance companies with better access to capital and improved ability to meet their financial obligations (Alhassan & Biekpe, 2023). The total value of transactions has experienced significant growth in recent years in Nigeria (Omotor, 2021), which could potentially contribute to the insurance sector's development.

Market turnover, another indicator of stock market liquidity, is also an essential factor affecting the insurance sector's growth. A high market turnover suggests that investors can easily buy and sell securities, which can lead to increased investment in the insurance sector (Alhassan & Biekpe, 2023). High market turnover suggests that investors are actively trading stocks, which may lead to increased investment in insurance companies and contribute to the development of the insurance sector (Adeusi et al., 2017). The market turnover of Nigeria has shown a positive trend in recent years (Olagunju & Awe, 2022), which could be an influential factor for the development of the insurance sector.

Based on the above introductory themes which holds stock market performance as bearing significant implication on insurance sector development, this study seeks to investigate the effect of stock market performance on insurance sector development in Nigeria.

1.2 Statement of the Research Problem

The insurance sector plays a critical role in promoting financial stability and economic growth in any country (Akpan, 2019). In recent years, the Nigerian insurance industry has witnessed significant growth and development, which has prompted researchers to investigate the factors that contribute to its success (Adediran & Adewuyi, 2020). Among these factors, the performance of the stock market has been identified as a critical determinant of insurance sector development (Oke & Adeusi, 2021). In this regard, several studies have examined the relationship between various stock market performance indicators, such as market capitalization, all-share index, total value of transactions, market turnover, and insurance sector development in Nigeria (Obasi, Uche, & Nwosu, 2020; Ogbeide & Agu, 2023). However, despite the growing body of literature on this subject, there remain several gaps in the existing research that this study aims to address.

Empirically, Ndubisi and Okeke (2019) found a positive relationship between stock market development and insurance sector growth in Nigeria. Similarly, Enyioko and Okafor (2022) reported that stock market indicators, such as market capitalization, influenced the performance of the insurance sector in Nigeria. However, these studies only examined a limited number of variables and focused on a specific time frame, which may not provide a comprehensive understanding of the relationship between stock market performance and insurance sector development.

Furthermore, some researchers have used different methodological approaches to investigate the effect of stock market performance on the insurance sector. For instance, Abimbola and Oke (2019) used the Vector Autoregression (VAR) model to examine the relationship between market capitalization and insurance sector development in Nigeria. On the other hand, Chukwu and Chijuka (2020) employed the dynamic panel data approach to investigate the impact of stock market indicators, such as the all-share index, on the insurance sector in Nigeria. These varying methodologies have resulted in inconsistent findings, which necessitates further investigation using more robust methods (such as the fully modified ordinary least squares (FMOLS) statistical techniques).

Another gap in the literature is the time frame considered in previous studies. Most of the existing research focuses on specific periods, which may not reflect the current situation in Nigeria. For example, Iyoha and Osaze (2021) examined the relationship between stock market performance and insurance sector growth from 2000 to 2014, while Olayungbo and Osadume (2020) considered the period from 1995 to 2015. An updated study is needed to capture the recent developments in the Nigerian stock market and insurance sector.

Moreover, the theoretical foundations of the relationship between stock market performance and insurance sector development have not been sufficiently explored. Although some studies (Ikpesu & Ndu, 2018; Nwokoye, Obi & Uzoma, 2019) have used the financial intermediation theory and the efficient market hypothesis as their theoretical

framework, these theories may not provide a comprehensive explanation for the relationship between stock market performance and insurance sector development. Thus, there is a need to identify and incorporate other relevant theories (such as market timing hypothesis and the institutional theory) that can better explain the relationship between these variables.

Therefore, this study aims to fill the gaps in the literature by examining the effect of stock market performance, including market capitalization, all share index, total value of transactions, and market turnover, on insurance sector development in Nigeria.

1.3 Research Questions

This study will provide answers to the following research questions:

1. What is the relationship between market capitalization and insurance sector development in Nigeria?
2. How does the all-share index influence insurance sector development in Nigeria?
3. What is the impact of the total value of transactions on insurance sector development in Nigeria?
4. How does market turnover affect insurance sector development in Nigeria?

1.4 Research Objectives

The broad objective of this study is to examine the relationship between stock market performance and insurance sector development in Nigeria. However, the specific objectives are to:

i. examine the relationship between market capitalization and insurance sector development in Nigeria;
ii. investigate the influence of the all-share index on insurance sector development in Nigeria;
iii. assess the impact of the total value of transactions on insurance sector development in Nigeria; and
iv. determine the effect of market turnover on insurance sector development in Nigeria;

1.5 Research Hypotheses

The following hypotheses stated in their null form shall be tested:

$H0_1$: Market capitalization has no significant relationship with insurance sector development in Nigeria.

$H0_2$: The all-share index does not significantly influence insurance sector development in Nigeria.

$H0_3$: The total value of transactions does not significantly impact insurance sector development in Nigeria.

$H0_4$: Market turnover does not significantly positive affect insurance sector development in Nigeria.

1.6 Scope of the Study

This study focuses on the relationship between stock market performance and insurance sector development in Nigeria between the periods 1990-2024. The choice of this period is to ensure the largest possible number of observations to make it possible to conduct a statistically meaningful econometric analysis. This is to reflect those periods after the implementation of the structural adjustment programme (SAP) by the government and various financial reforms (such as bank recapitalization exercises). The study seeks to specifically examine the effect of market capitalization, all share index, total value of transactions, and market turnover, on insurance sector development (which will be measured by insurance penetration rate) in Nigeria. Data needed for this study will be secondarily sourced from the National Insurance Commission annual report, Central Bank of Nigeria statistical bulletins, and Nigeria Exchange Limited Factbook for various years under review.

1.7 Significance of the Study

The findings of this study will provide valuable insights for policymakers, insurance companies, investors, researchers, and the general public.

- **Policymakers:** Understanding the relationship between stock market performance and insurance sector development can inform the design of policies and regulations that promote a stable and thriving insurance industry in Nigeria. Policymakers can use the findings of this study to create an enabling environment for insurance companies to grow, which in turn contributes to the overall stability and growth of the Nigerian economy.
- **Insurance Companies:** The study's findings can help insurance companies identify key factors that influence their development and growth. By understanding the relationship between stock market performance and insurance sector development, these companies can make informed strategic decisions to leverage stock market trends, optimize their operations, and maximize their potential for growth and profitability.
- **Investors:** For investors, this study provides valuable information on the factors that drive insurance sector development in Nigeria. By understanding the relationship between stock market performance and insurance sector growth, investors can make informed decisions about their investment strategies, potentially identifying lucrative

opportunities in the insurance industry and contributing to the overall development of the sector.

- **General Public:** A thriving insurance sector is essential for the overall well-being of the general public, as it provides financial protection against various risks and uncertainties. The findings of this study can help raise awareness about the importance of a well-functioning stock market and its role in promoting a stable and growing insurance industry, ultimately benefiting the general public through increased access to insurance products and services.
- **Researchers:** This study will contribute to the existing body of knowledge on the relationship between stock market performance and insurance sector development in Nigeria. By addressing the identified gaps in the literature, the study will provide a more comprehensive understanding of the factors influencing insurance sector development, which can serve as a foundation for further research in this area.

1.8 Limitations of the Study

The study like every other study is faced with certain limitations. Secondary data that will be employed has some constraints in terms of accuracy and subjectivity, however these constraints will be mitigated by sourcing data only from credible sources (CBN Bulletin and National bureau of Statistics) and also by conducting a pre-regression

estimation such as correlation matrix, Heteroscedasticity test and Test for serial correlation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines the conceptual framework, review of related studies, and theoretical framework for the study. This chapter is made up of four sections. Closely following this introduction is the second section which deals with the conceptual review then the theoretical review of various theories underpinning to validate this current study follows. Finally, the chapter is concluded with a review of empirical literature linking the dependent variable (insurance sector development) and the independent variable (stock market performance).

2.2 Conceptual Review

2.2.1 Concept of Insurance

Insurance is a promise of compensation for specific potential future losses in exchange for a periodic payment (Eze & Okoye, 2021). Ejide and Tsowa, (2020) opine that it is a social device that combine uncertain risk of individuals in a group thereby making it more certain, via small periodic contributions by the members in the group from where to reimburse one who may suffer loss. Consequently, insurance is a legal contract that protects people from the financial costs that result from loss of life, loss of health, lawsuits, or property damage (Nelson, 2019).

Insurance is classified into two broad categories based on their economic importance: general insurance companies and life insurance companies. General insurance companies and life insurance companies differ in terms of operation, investment activities, vulnerability, and duration of liabilities. Life insurers are thought to act as financial intermediaries, whereas general insurers are thought to act as risk takers, according to Chen and Wong (2024). Insurance business in many countries of the world assumes a certain degree of regulation. The reason for the regulation is to minimise unfair and unethical practices that may undermine the insured's interest and enthrone orderliness in the market. The federal government of Nigeria through Insurance Act 2003 regulates insurance business under the supervision of National Insurance commission (NAICOM) and Nigeria Reinsurance Corporation. Among other organs that oversight the business of insurance in Nigeria is Central Bank of Nigeria (CBN).

Insurance is important for both individuals and organisations because it compensates for losses and returns them to their pre-loss position. In an extremely uncertain and volatile environment, businesses cannot bear all of the risk, so the current business model is highly unstable (Ahmed, Ahmed & Usman, 2021). Insurance companies have grown in importance in the financial sector, both as a provider of critical financial services to customers and as a capital market investment. However, there is considerable variation in life insurance usage, raising the question of what motivates it. Despite the fact that life insurance companies are becoming more important in the financial industry, emerging

countries continue to have very low insurance consumption levels (Webb & Beck, 2021). According to the International Association of Insurance Supervisors (IAIS) in their annual report of 2023, insurance companies play a variety of economic roles, some of which are listed below:

1. Insurance promotes an efficient market by, first and foremost, reducing uncertainty and financial losses caused by a specific set of circumstances. Therefore, one of the barriers to competition, monopoly, is removed. It helps small businesses compete on a level playing field with larger competitors, resulting in business stability through indemnification. Insurance enables more efficient resource utilization and allocation, which contributes to further price reductions in consumer goods and essential services.
2. Insurance policies can be used to save money, especially for people who find it difficult to save. This can be seen in an endowment assurance (under life assurance), where a sum of money is paid as a premium for a set period of time after which the insured can withdraw his money regardless of whether he suffers a loss.
3. Insurance encourages loss prevention: When a loss occurs, the economy suffers because the funds spent on replacement could have been used for something else. Insurance encourages loss reduction in order to benefit the economy. Insurance companies encourage their customers to take the necessary precautions by increasing premiums (premium loading) and offering discounts for loss reduction

services and no-claims periods. In many cases, insurers will refuse to provide coverage until the recommended safeguards are put in place.

4. In today's world, the vast majority of transactions are conducted on a credit basis, and Nigeria is no exception. Insurance compensates individuals and organizations for losses caused by their debtors; lenders can confidently lend out after purchasing a credit insurance policy and knowing that insurance companies will compensate them if their debtors fail to pay them due to debtors' insolvency; the fund to be tied down is released to the economy.
5. The insurance industry is assisting the government in addressing the issue of unemployment. Job opportunities exist in the industry for those who work in it. Other large industries that provide employment can do so due to various types of insurance coverage.

2.2.2 Insurance Sector Development

Insurance sector development refers to the depth of insurance services in a country in terms of the range of insurance services and the scope. Typically, the development of the insurance sub sector is measured by the insurance penetration rate (IPR). Insurance penetration, defined as gross premium income (GPI) as a percentage of gross domestic product, is a measure of an insurance sector's development (Akindola & Stevenson, 2023). According to Mahul et al. (2019), insurance penetration rate is defined as the ratio of insurance premium volume to GDP; non-life insurance penetration is defined as the

ratio of non-life insurance premium volume to GDP, and the proportion of premiums paid to the GDP is referred to as insurance penetration (GDP). It is one of the most important indicators of the country's financial development (Houa & Cheng, 2017). The level of insurance penetration in the domestic economy demonstrates the domestic economy's relative size and significance (Olayungbo & Akinlo, 2016).

The International Association of Insurance Supervisors provided a detailed conceptual description of insurance penetration rate (IAIS). According to the association, the insurance penetration rate is the most common tool used to assess the development of a country's insurance market. The penetration rate is defined as a country's total insurance premiums as a percentage of its GDP, and it indicates how much the insurance industry contributes to the national economy (IAIS, 2023). As a result, the penetration rate serves as a solid numerical foundation for international comparison across jurisdictions and regions. However, while it serves as a broad, high-level indicator of an insurance market's development, the penetration rate does not reveal detailed information about the local insurance market's actual dynamics. It does not indicate the number of people who have insurance, nor does it indicate the quality of coverage or whether it provides value to clients. The insurance penetration rate is unlikely to be sufficiently meaningful for supervisors who have a mandate to improve access to insurance and/or want to get a better picture of client value because it only provides limited information. Understanding the market is essential for developing evidence-based policies and assessing regulatory

outcomes, which is consistent with the use of a risk-based supervisory approach. Sound data and measurement are critical to understanding the value of insurance products on the market, so supervisors must look into other potential tools that could help them go beyond a basic understanding of their market and focus on what is happening in specific countries (IAIS, 2023; Okonkwo & Eche, 2024).

2.2.3 Concept of Stock Market

Al-Faki & Khaleed (2023) opined that the stock market is a network of specialized financial institutions, a system of procedures, processes, and infrastructure that support the bringing together of suppliers and users of medium to long term capital for investment in socioeconomic development projects. The stock market is separated into two parts: the main market and the secondary market. The primary market, also known as the new issues market, is a channel through which governments and corporations obtain new cash by issuing securities that are subscribed to by the general public or a select group of investors. It is a platform via which enterprises or the government can raise funds for investment or existing publicly traded corporations can raise new capital for expansion. The secondary market allows for the sale and acquisition of existing securities. It is a sort of market in which existing securities of a market are exchanged on a daily and continuous basis (Stanley & Effiong, 2020). It is the existing securities market. This includes exchanges and over-the-counter markets where securities are bought and sold after they have been issued in the primary market. The stock market is seen as a subset of

the securities market, in which stock trading is structured and conducted (Ibrahim, 2020). It is the location where securities (shares) of publicly traded firms are traded, as well as where foreign and local investments are made (Ullah, Hussain & Rauf, 2014). It is a regulated market in which brokers meet to purchase and sell stocks and shares at predetermined prices in order to make long-term investments (Olokoyo & Ogunnaike, 2021). Thus, stock markets (or equity markets), like many other financial intermediaries, promote the transfer of funds from savers to spenders (investors). It mobilizes and channels idle funds and resources in the economy to the most productive uses, resulting in efficient capital allocation.

Historically, debt was the preferred source of finance for industrial firms; nevertheless, equity and quasi-equities are now appealing financial vehicles. To improve financial activity, a stable and well-regulated equities market is required. Firms can easily raise capital by issuing securities if the equity market is efficient (Rashid, 2018).

According to Ofure & Ukaeke (2019), governments (local, state, or federal) and corporate groups are the principal entities aiming to raise long-term funding in the primary capital markets. The secondary market is a financial market in which a person can buy stocks from another investor rather than directly from the organization issuing the shares.

2.2.4 Overview of Nigerian Exchange Limited (NGX)

It started operations as the Lagos Stock Exchange in June 1961, with 19 listed securities, ten of which were industrial loans, six of which were federal government bonds, and three of which were equities (Osaze, 2021). The National Provident Fund, a compulsory contributory savings scheme, was established in 1961 to provide some protection to contributors in the event of temporary unemployment, invalidity, or old age. Surplus funds were required by the Fund's Act to be invested solely in Nigerian securities approved by the Trustee Investment Acts of 1957 and 1962. Furthermore, investment was limited to securities issued or created by the federal government (Osaze, 2021). The rapid growth of the Nigerian stock market highlighted the importance of establishing a high-level institution to monitor activity, prompting the formation of the Capital Issues Committee concurrently with the passage of the Trustee Investment Act and the Exchange Control Act. Furthermore, the Capital Issue Committee was given the authority to use sale or subscription offers to determine the timing and price of new security issues (Osaze, 2021).

The exchange was renamed the Nigerian Stock Exchange in 1977, and branch exchanges were suggested. As a result, six new trading floors were established across the country between 1978 and 2002. The Capital Issues Commission was replaced in 1978 by the Securities and Exchange Commission, whose mandate was expanded to include the

establishment of multiple exchanges across the country as well as the approval of securities allotments (Osaze, 2021).

However, the NGX introduced the Second-Tier Securities Market (SSM) in 1985 to provide a framework for the listing of small and medium-sized Nigerian companies on the Exchange in order for them to raise capital. It began operations with one equity in 1985, grew to twenty-three in 1993, and then dropped to sixteen in 2005. Following the implementation of the Structural Adjustment Programme in 1986 and subsequent stock market deregulation in January 1993, the determination of prices for new issues of securities, which had previously been vested in the Securities and Exchange Commission of Nigeria, was now transferred as one of the roles of issuing houses (Olowe, 2024). The number of listed securities, market capitalization, and the all-share index all increased as a result of market transactions. The improved performance was largely attributed to the establishment of the second-tier securities market (SSM) in 1985, as well as a liberalization policy in 1986 that resulted in interest rate deregulation in 1987, as well as the privatization of some government-owned companies in 1991. (Babalola & Adegbite, 2019).

The Nigerian Enterprises Promotion Decree 34 was passed in 1987 to allow public companies listed on the NGSE to issue non-voting paid-up equity shares to Nigerian citizens and non-citizens, as well as residents and non-residents (Osaze, 2021). The Privatisation and Commercialization decree 25 of the following year began the process of

increasing the number of companies listed on the NGSE by allowing for the privatization of some partially government-owned companies as well as the sale of some fully government-owned companies. The Companies and Allied Matters Act (CAMA) of 1990 governs legal issues such as insider trading, acquisitions and mergers, reconstructions, unit trusts, securities registration and allotment, prospectus preparation, and public invitations to offers (Osaze, 2021).

The Central Securities Clearing System (CSCS) was established in 1992 in response to the Inter-ministerial Committee on the Nigerian Stock Exchange's 1991 recommendation for the establishment of an official central clearing and depository for the exchange. It was tasked with implementing a computerized stock exchange management system centred on the immobilization of share certificates in a Central Depository (Osaze, 2021). When the Nigerian stock market was officially deregulated in 1993, the issuing house was given responsibility for the timing, pricing, and allotment of stock issues. The Chartered Institute of Stockbrokers, which was established in 1992, was tasked with inspecting stockbrokers, licensing stockbrokers and dealers, and monitoring stockbrokers' conduct (Osaze, 2021).

The Nigerian Minister of Finance established the Nigerian Investment and Securities Tribunal in 2002 to ensure transparency and to resolve market participants' disputes in a flexible, timely, and effective manner (Osaze, 2021). Furthermore, in 2003, the SEC introduced the Code of Corporate Governance as a persuasive tool to encourage listed

companies to follow international best practices in financial reporting, such as investor protection, accountability, transparency, accuracy, and appropriate disclosure.

The exchange was renamed the Nigerian Exchange or Nigerian Exchange Limited (NGX) in 2021. The exchange plays numerous roles in the country's economic development. According to Muhktar (2023), the roles include: providing opportunities for companies to raise funds for expansion of operations, resulting in increased production, employment, and economic growth; creating opportunities for the government to finance projects; promoting capital formation by providing a platform for savings to be efficiently mobilised for productive investments; and encouraging inflow of foreign capital when foreign companies or investors invest in dome.

2.2.5 Structure of the Nigerian Stock market

The operations of the stock market are divided into three broad categories: primary, secondary, and derivatives markets (Taiwo, Alaka & Afieroho, 2022).

The primary market is in charge of issuing new shares through the stock exchange or through private placement. Their operations are carried out using the following methods: subscription offer, sale offer, right issue, private placement, and listing by introduction (Taiwo, Alaka & Afieroho, 2022).

The secondary market also known as the stock market serves as a forum for stock market activities (trading in stocks and shares, bonds, debentures, and other long-term securities) and is usually open to all types of investors – small and large, government institutions or

individuals. Development banks, private firms, the treasury, and the CBN are major participants in the Nigerian stock market, while commercial and merchant banks, individuals, states, and local governments are minor participants (Taiwo, Alaka & Afieroho, 2022).

This market is made up of the organized stock exchange and the over-the-counter (OTC) market. So far, SEC has registered two OTC exchanges in Nigeria, namely; Financial Market Dealer Quotation (FMDQ) in November, 2012 and National Association of Securities Dealers (NASD) in December, 2012. Secondary market transactions are conducted by licensed stock brokers on the NGX's current has thirteen (13) trading floors in the following states: Lagos, Kaduna, Benin, Port Harcourt, Kano, Onitsha, Ibadan, Yola, Uyo, Ibadan, Owerri, Illorin, Abeokuta and Abuja.

The Derivatives Market: This is a market that trades on the right to title on the underlying security or on the basis of future title to the security rather than the issued securities. The derivatives market in Nigeria is still in its infancy, with right offer issue options currently being the only derivative actively traded on the NGX. Nigeria, like many other countries, has a formal stock market, as evidenced by the presence of a stock exchange and an active new issue market (Taiwo, Alaka & Afieroho, 2022).

According to Okereke (2000), the Nigerian exchange limited constituencies can be broadly classified into four categories: fund providers (individuals, unit trusts, pension trusts, insurance companies); fund users (companies, government at all levels, etc);

intermediaries (stock broking firms, issuing houses, registrars, auditing firms); and regulators (SEC, NGX, CBN).

The Nigerian exchange limited provides a variety of financial instruments to meet the public and private sectors' long-term financing needs. Shares, stocks, equity, bonds, debts, and financial derivatives are examples of these instruments. Securities, also known as shares, are financial instruments that are traded on the NGX. Equities represent a stake in the company that issued them, whereas bonds are debt instruments in which the principal and interest are usually payable to the holder at pre-determined intervals (Ezeoha, Ebele & Okereke-Onyeike, 2020).

Furthermore, the NSE has upgraded its stock market in order to internationalize its operations. One such development, which has increased the appeal of the NGX internationally, is the establishment of the Central Security Clearing System Limited (CSCS), which began operations in April 1997. The CSCS operates an automated clearing and settlement system, which handles stock ownership transfers from one shareholder to another as well as sales proceeds transfers from the buying shareholder to the selling shareholder. The automated CSCS now transfers shares on a T + 3 (trading day + three working days) time frame, while transactions are executed on the basis of delivery versus payment (Taiwo, Alaka & Afieroho, 2022).

2.2.6 Functions of the NGX

The NGX was set up to perform a number of functions. Again, these functions have been identified and stated by Anyanwu (2023) as follows: to promote appropriate machinery top facilitate further offerings of stock and shares to the general public; to promote increasing participation by the public in the private sector of the economy; to encourage the investments of savings as soon as it is clear that the stocks and shares are readily available; to provide a central meeting place for members to buy and sell existing stocks and shares and for granting quotations to new ones; to provide the machinery for mobilizing private and public savings and making these available for productive investments through stocks and shares; provide opportunities for raising new capital; to facilitate dealings in government activities and hence enhance foreign investment in Nigerian manufacturing since government goes into joint venture with foreign investors; to reduce the risk of liquidity by facilitating the purchase and sale of securities; to protect the public from shady deals and practices in quoted securities so as to ensure fair trading through its rules, regulations and operational codes; and to provide opportunities for continued operation and attraction of foreign capital for the nation's developments.

2.2.7 Stock Market Performance

The development of the stock market refers to the market's effectiveness in mobilizing and allocating money in order to achieve a high level of economic growth and development. A developed stock market is one that is sufficiently large and liquid, has a

non-concentrated market capitalisation, and is adequately linked to the performance of the actual economy (Kamal, 2023). Despite the numerous studies on stock markets, no single criterion can be used to measure stock market performance. Because the stock market is a complicated and multifaceted notion, using a variety of indicators provides a more realistic portrayal of its evolution. The various indicators of stock market performance are discussed robustly below.

2.2.7.1 Stock Market Performance Indicators

Stock market indicators are components or measures that show how the market's activities have increased or expanded. Increases in size and improvements in stock market elements such as market capitalization, total value of traded transactions, all share index, turnover ratio, market capitalization, ratio number of deals, total listed equity volume of transaction, total new issues, total listing, market share index, listed securities can all be seen as indicators (Eneisik, Ogbonnaya & Onuoha, 2021).

2.2.7.2 Market Capitalization

Market capitalisation is a vital indicator of the financial strength, growth potential, and investor confidence in companies, including those within the insurance sector. In the context of the insurance industry, market capitalisation reflects not only the value investors place on insurance firms but also serves as a determinant of how much capital is available for underwriting activities, investment in infrastructure, and risk management (Self developed, 2025). A robust market capitalisation can thus serve as a catalyst for the

development of the insurance sector by enhancing insurers' capacity to meet regulatory solvency requirements, invest in technology, expand operations, and improve service delivery. Studies have shown that higher market capitalisation among insurance firms often correlates with stronger investor perception and financial stability, which are critical to long-term performance. For instance, GlobalData (2024) revealed that the top 25 global insurance companies recorded a market capitalisation increase of 8.3% in the first quarter of 2024 due to rising premiums and proactive responses to inflation and geopolitical tensions. This increase enabled insurance firms to maintain risk-based capital levels, invest in digital innovations, and strengthen their underwriting capabilities. Similarly, McKinsey (2022) argued that well-capitalised insurers were better positioned to adopt InsurTech solutions during the COVID-19 pandemic, enabling them to maintain operations and improve customer experience.

In the Nigerian context, market capitalisation has also played a notable role in influencing the development trajectory of the insurance sector. Dibal and Ambam (2024) found that the net asset value of insurance firms—one of the core determinants of market capitalisation—had a positive and statistically significant effect on overall capital market development in Nigeria. Their findings suggest that insurance firms with greater capitalisation tend to invest more in market instruments, contribute to liquidity, and attract greater investor interest. Similarly, Andabai and Owei (2023) found that insurance sector investments, including those tied to market capitalisation, significantly impacted

the capitalisation of the Nigerian Exchange Group. These investments increased the depth and breadth of the financial market, making the insurance sector more attractive to foreign and institutional investors.

Moreover, market capitalisation supports insurance firms in meeting capital adequacy ratios set by regulatory authorities. Firms with higher capitalisation can more easily comply with solvency requirements, which in turn builds trust among policyholders and ensures the sustainability of insurance operations. According to Bonaccolto et al. (2025), European insurance firms with stronger capital buffers were less vulnerable to systemic shocks and demonstrated greater resilience during financial turbulence. The same principle applies in Nigeria, where insurance companies with higher capitalisation are better positioned to withstand economic shocks, such as inflationary pressures and foreign exchange fluctuations.

Furthermore, increased market capitalisation provides a platform for mergers and acquisitions, which is crucial for consolidating fragmented insurance markets. For instance, IRMI (2021) noted that highly capitalised insurance firms in developed markets were able to acquire smaller firms, thereby enhancing their market share, operational efficiency, and competitiveness. In Nigeria, where the insurance industry is still developing, market capitalisation can facilitate similar strategic consolidation that leads to a more robust and competitive insurance landscape.

2.2.7.3 All Share Index

The All-Share Index represents the aggregate value of all listed equities on the stock exchange, serving as a measure of the overall movement in market prices. For the insurance sector, the ASI not only reflects the valuation of insurance stocks but also influences capital inflows, investor confidence, and long-term growth prospects within the industry. A buoyant ASI generally corresponds with increased market activity and provides insurance firms with opportunities to raise capital through equity offerings, while a declining index can signal macroeconomic instability or sector-specific weaknesses, thereby constraining growth.

The performance of the ASI has a direct impact on the insurance sector's development in several ways. First, it determines the ease with which insurance companies can attract investments. When the ASI is on an upward trajectory, it often leads to bullish market conditions, which enhance the attractiveness of equity financing. This environment enables insurance firms to issue new shares, raise capital for expansion, and invest in technology and human resources. According to Ezeaku et al. (2023), a positive and significant relationship exists between stock market performance, measured by the ASI, and the investment behaviour of financial institutions in Nigeria, including insurance companies. The study found that an improving ASI encourages long-term investment and risk-taking, both of which are essential for insurance sector growth.

Secondly, the ASI influences the asset portfolio of insurance firms, particularly in relation to investment income. In Nigeria, as in many countries, insurance companies are required by regulation to invest a portion of their premium income in approved financial instruments, including equities. The performance of these equities—reflected in the ASI—therefore affects the profitability and liquidity of insurance firms. Onoh and Uzonwanne (2021) noted that insurance companies in Nigeria tend to perform better in terms of returns on investment when the ASI is stable or rising, as this positively impacts their equity holdings and market confidence.

Additionally, the ASI acts as a signal for macroeconomic stability and regulatory effectiveness. A stable and consistently growing index encourages both domestic and foreign investors to participate in the market, thereby boosting liquidity. This increased participation has multiplier effects on sectors such as insurance, where investor interest can translate into higher valuations, improved governance, and better access to capital markets. Udeh and Ugochukwu (2020) found that the ASI responds positively to sound regulatory frameworks and investor-friendly policies, which in turn benefit insurance firms by improving market predictability and reducing systemic risks.

However, the relationship between the ASI and insurance sector development is not always linear or automatic. The underrepresentation of insurance stocks on the Nigerian Exchange Group (NGX) means that changes in the ASI may not always accurately reflect developments within the insurance sub-sector. Many insurance firms are either not listed

or have low market capitalisation, thus limiting their influence on the overall index. Nevertheless, efforts by regulatory authorities such as the National Insurance Commission (NAICOM) to encourage recapitalisation and public listing are steps in the right direction. As more insurance firms list and become active market participants, their sensitivity to the ASI will increase, and so will the index's role in facilitating sectoral growth.

2.2.7.3 Value of Transaction

The total value of transactions traded on the stock market exchange divided by the gross domestic product is the value of a transaction. The value of transactions in the capital market reflects the volume and worth of financial instruments traded over a given period and serves as a crucial indicator of market activity, investor participation, and liquidity. In relation to the insurance sector, high transaction values often signal investor confidence, a vibrant trading environment, and the availability of capital—all of which are essential for the growth and development of insurance firms. A rising value of transactions creates an enabling environment for insurance companies to access long-term funding, diversify their investment portfolios, and enhance operational capacity through improved liquidity.

One of the primary ways in which the value of transactions affects insurance sector development is through capital mobilisation. In capital markets with high trading volumes and transaction values, there is typically a greater flow of funds, which enables

insurance firms—particularly those that are listed—to raise capital for underwriting operations, expansion, and digital transformation. As observed by Okonkwo and Mordi (2021), capital market activity, as proxied by value of transactions, significantly influences the funding capacity of financial institutions in Nigeria, including insurance firms. The study emphasized that higher transaction values reflect investor interest, which is a prerequisite for successful equity offerings by insurers.

Moreover, the value of capital market transactions affects the asset base and investment income of insurance companies. In Nigeria, insurance firms are mandated to invest a portion of their reserves and premiums in capital market instruments such as equities and bonds. The profitability and liquidity of these investments depend on market activity, which is largely measured by transaction values. According to Ibrahim and Danjuma (2020), a direct relationship exists between the value of transactions in the Nigerian capital market and the returns on investment for institutional investors, including insurance companies. The authors found that during periods of high transaction activity, insurers recorded better investment outcomes, which translated into improved claims settlement, product development, and customer satisfaction.

Another important dimension is the signalling effect of high transaction values. A consistently active market indicates macroeconomic stability and investor optimism, which can attract both local and foreign investors to the insurance industry. As noted by Nwankwo and Ugochukwu (2019), the insurance sector tends to benefit from positive

externalities associated with high capital market turnover, such as increased awareness, enhanced corporate governance, and greater public trust. These factors are critical in improving insurance penetration and encouraging broader participation in insurance products and services.

Furthermore, increased value of transactions improves market depth and liquidity, making it easier for insurance companies to adjust their portfolios or liquidate assets when necessary. This is particularly important in managing risk and maintaining solvency margins. Ogar and Ubi (2022) observed that periods of low transaction values are often associated with liquidity constraints, which hamper the investment flexibility and responsiveness of insurance firms in Nigeria. The authors emphasized the need for policies that stimulate capital market activity as a means of indirectly strengthening the insurance industry.

However, the extent to which insurance firms benefit from rising transaction values depends largely on their level of participation in the capital market. In Nigeria, many insurance companies are yet to be listed or have relatively low market capitalisation, which limits their ability to leverage capital market transactions effectively. Nonetheless, regulatory efforts by NAICOM and the Securities and Exchange Commission (SEC) to encourage public listing and greater transparency are beginning to yield results. With increasing participation of insurance firms in the Nigerian Exchange, the relationship

between transaction values and sector performance is expected to become more pronounced (Olasunkami & Osinbajo, 2023).

2.2.7.4 Market Turnover

Market turnover—commonly defined as the ratio of the value of shares traded to the total market capitalisation—serves as a crucial indicator of stock market liquidity, efficiency, and investor sentiment. In the context of insurance sector development, market turnover plays a significant role in shaping the investment environment, influencing capital allocation decisions, and determining the extent to which insurance companies can benefit from participation in the capital market (Kenneth & Philppe, 2020). A high turnover rate typically signifies an active market where securities can be quickly bought and sold without significant price changes, which is especially beneficial for institutional investors such as insurance firms that regularly manage large investment portfolios.

Insurance companies are key institutional investors in most capital markets, and their investment strategies are often influenced by turnover rates. High market turnover suggests better liquidity, enabling insurers to quickly adjust their asset allocations in response to changes in market conditions or internal policy objectives. As noted by Afolabi and Ajayi (2020), liquidity in the capital market, as reflected by market turnover, has a direct impact on the investment returns and risk management capacity of insurance firms in Nigeria. They found that when turnover rates were high, insurers could

reallocate funds efficiently, minimize exposure to volatile assets, and maintain healthy solvency margins.

Furthermore, market turnover affects the attractiveness of the stock market to insurance firms seeking to raise capital through equity offerings. In a liquid market with high turnover, shares are more easily traded, reducing the cost of capital and enhancing the appeal of public listing. This is particularly relevant in the Nigerian insurance sector, where efforts are ongoing to increase the number of listed insurance firms. According to Bassey and Udoka (2021), insurance firms are more likely to consider listing when turnover rates are high, as this indicates active investor interest and the likelihood of successful capital mobilisation.

In addition to facilitating fundraising and investment efficiency, market turnover contributes to improved pricing and valuation of securities. High turnover reduces bid-ask spreads and enhances price discovery, allowing insurance firms to accurately assess the value of their equity holdings. This is vital for financial reporting and decision-making within insurance companies. Ebi and Okoli (2019) assert that active markets improve valuation precision and encourage more transparent and accountable investment practices among institutional investors, including insurance firms.

Moreover, market turnover plays a signalling role in the overall economic environment. High turnover typically reflects investor confidence and economic optimism, which can have positive spillover effects on insurance uptake and industry growth. As consumer

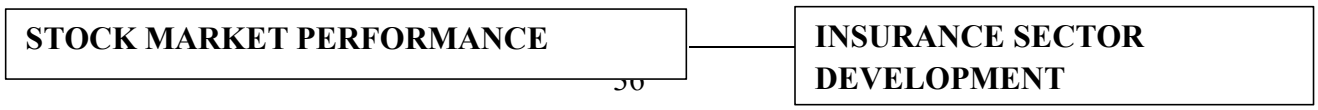
and investor confidence grows, so does demand for insurance products, particularly those tied to investment and savings, such as life insurance and annuities. Iwuagwu and Eze (2022) emphasized that market turnover serves as a forward-looking indicator for the financial services industry, and a sustained increase in turnover often precedes growth in related sectors, including insurance.

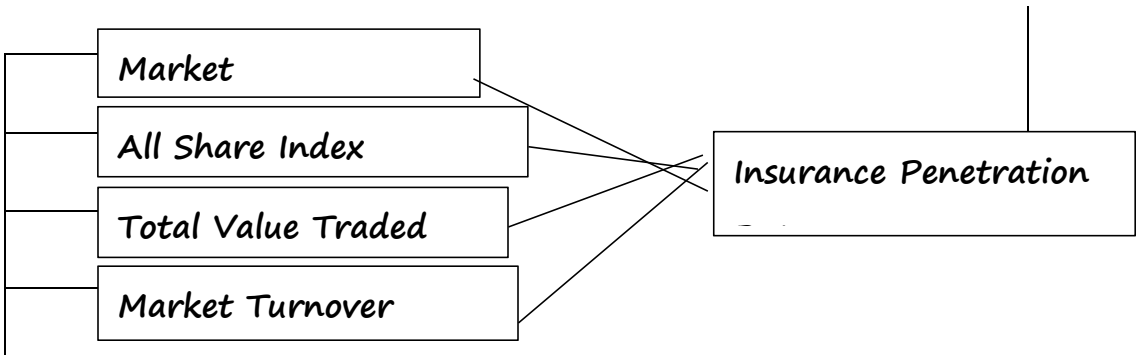
However, the impact of market turnover on insurance sector development is not without limitations. In markets where insurance stocks are thinly traded or underrepresented—as is the case with several Nigerian insurance firms—the benefits of high turnover may be disproportionately skewed toward other sectors. To address this, regulatory bodies such as the Nigerian Exchange Group and the National Insurance Commission have continued to advocate for the recapitalisation and public listing of more insurance companies to ensure they can fully participate in and benefit from market liquidity.

2.2.8 Conceptual Framework

The conceptual framework of this study is based on four independent variables namely: market capitalisation, all share index, total value traded and market turnover as well as their effect on insurance sector development which is the dependent variable. The influence of the independent variables on the dependent variable is illustrated in figure 2.1 below.

Figure 2.1 Framework for the Study





Source: Author's Construction (2025)

2.3 Theoretical Review

This research was organised around five theories that attempt to explain the relationship between stock market performance and insurance sector development. Modern portfolio theory, arbitrage pricing theory, market power theory, modern monetary theory, and interest rate parity theory are among these theories.

2.3.1 Modern Portfolio Theory

The modern portfolio theory was proposed by Harry Markowitz in 1952. Essentially, the theory states that to maximise returns and minimise risks, any investment firm should have a portfolio of investments in various types of investments. It is standard practise for insurance firms to invest in a diversified portfolio in order to reduce risk and maximise the returns from the various investment options available (Cumming, 2019). The modern portfolio theory (MPT) is a finance theory that seeks to maximise expected portfolio returns for a given amount of portfolio risk, or to minimise risk for a given level of return,

by carefully balancing asset allocation. MPT models a portfolio as a weighted combination of assets, so a portfolio's return is the weighted combination of asset returns. The portfolio selection process can be divided into two stages. The first stage begins with observation and experience and ends with beliefs about how available securities will perform in the future. The second stage begins with relevant beliefs about future performance and concludes with portfolio selection. One type of portfolio rule is that the investor should (or should not) maximise the discounted (or capitalised) value of future returns. Because the future cannot be predicted with certainty, it must be "expected" or "anticipated" returns that are discounted.

MPT seeks to reduce the total variance of the portfolio return by combining different assets whose returns are not perfectly positively correlated. MPT also assumes rational investors and efficient markets (Markowitz, 1952). Consistent with the portfolio theory's essentials of diversification and risk minimization, modern financial theory has focused on macroeconomic variables as likely sources of systematic risk. According to this theory, macroeconomic variables may have an impact on the efficiency and thus performance of insurance firms.

2.3.2 Arbitrage Pricing Theory

The Arbitrage Pricing Theory (APT) was primarily developed by Ross (1976). It is a one-period model in which all investors believe that the stochastic properties of capital asset returns are consistent with a factor structure. Ross contends that if equilibrium prices

provide no arbitrage opportunities over static portfolios of assets, then expected returns on assets are roughly linearly related to factor loadings. An insurance firm manager must constantly assess investment options in light of limited resources and the critical need to maximise shareholder returns. This is referred to as the process of arbitraging between available opportunities. Arbitrage is the practise of obtaining a positive expected return from overpriced or underpriced securities in an inefficient market with no additional risk or investment. The arbitrage pricing theory (APT) is an asset pricing theory that states that the expected return on an investment or financial asset can be modelled as a linear relationship of various macroeconomic variables, or where the degree of correlation to changes in each variable is represented by a beta coefficient.

The model-derived rate of return will then be used to correctly calculate the asset's price or value. The asset value should be equal to the expected end-of-period asset value or future cash flows discounted at the model's implied rate. If the asset value fluctuates, arbitrage should return it to the line (Dybvig & Ross, 2023). Arbitrage in the context of APT is defined as trading in at least two assets, at least one of which is not at its true market value. The arbitrageur sells the asset that is relatively overpriced and uses the proceeds to purchase one that is relatively underpriced.

Beenstock and Chan (2017) published a study that proposed an alternative methodology for testing Arbitrage Pricing Theory (APT) in the context of the British securities market. They identified four macroeconomic variables for the UK market using the macro

variable model: Interest rates; fuel and material costs; money supply; and inflation are all factors to consider. It was discovered that the inflation rate was consistently priced. The significance of other factors was discovered to be dependent on their sample period and estimation model selection. They discovered that the inflation rate, the short-term interest rate, and the rate of money growth are all priced factors. They discovered a lack of support for output, employment, exchange rates, and the balance of payments. An asset is said to be under or overvalued under the APT if its current price differs from the price predicted by the model. According to the arbitrage pricing theory (APT), the performance of an insurance firm is heavily influenced by changes in each of the macroeconomic variables.

2.3.3 Market Power Theory

One of the most influential proponents of this theory is Joseph Stiglitz in 2001. The Market Power hypothesis is empirically proved when concentration introduced in the explanatory equations of performance is found non-significant in contrast to market share which should be positively and significantly correlated with price and/or profitability. Nevertheless, it is not obvious that employing market structure in these equations produces unambiguous results (Aikaeli, 2018). It is the Quite Life hypothesis which a bank management unit with a large market share is less centred on efficiency as the exploitation of market power in terms of fixing prices allows deriving automatically benefits (Hicks, 1935). An increase in market power comes with a deterioration of

efficiency which makes banks unable of earning higher profitability. The Quite Life hypothesis puts forward an explanation in the case of the absence of a presumed relationship between profitability and market structure.

An insurance firm with a strong position in the market may either reinforce its domination over the market or achieve a higher efficiency by marshalling its assets. As such, total asset is a main determinant of operational efficiency of the insurance firms. This theory implies that macroeconomic variables such as exchange rate, inflation and level of interest rate may have an effect on the performance of insurance firm performance.

2.4 Empirical Review

Okparaka (2018) examined the impact of Insurance Investment in Government Securities in Nigeria Capital Market and analyse the impact of Insurance Investment in Stock and Bond in Nigeria Capital Market. Research design was Ex-post facto. Ordinary least square regression was used as analytical technique. It was found that Insurance investment in Government Securities has positive and significant impact on Total Market Capitalisation; and Insurance investment in Stocks and Bonds has positive and significant impact on Total Market Capitalisation. From the findings of the study it is concluded that collectively the insurance industry investments in the Capital market have the capacity to make very significant impact on Market capitalization.

Using the Johansen Co-integration, Error Correction, and Granger Causality methodology, Abina and Lemea (2019) looked at the stock market and the performance of Nigeria's Nigeria's insurance sector from 1985 to 2017. The Johansen Co-integration test revealed that the variables had a long-term positive relationship, while the Granger Causality test revealed two significant unidirectional causalities flowing from insurance penetration rate to total market capitalization and total value of new issues, respectively. As a result, the study claims that the stock market in Nigeria is a strong driver of Insurance sector development.

Owen (2020) investigated the relationship linking stock market development and Insurance sector development from 1985 to 2018. In measuring insurance sector development, Insurance penetration rate was adopted, while stock market was surrogated by turnover ratio, market-capitalization, and value of share- traded, sourced from the Central Bank of Nigeria (CBN) and the Security and Exchange Commission Database. The inclusion of money supply (M3) captured innovation (financial) in the monetary sector. In investigating the aforementioned relationship, the ARDL Bound test methodology was adopted. Empirical results from the investigation confirm the existence of a long-run relationship between stock market development and insurance sector development. Similarly, there was a positive relationship between indices of stock market development and insurance sector development, albeit statistically insignificant.

Ezeibekwe (2021) identified the long-run impact of stock market development on the Insurance sector development of Nigeria. The data was sourced from the statistical bulletin of the Central Bank of Nigeria (CBN) from 1981 to 2017. The Augmented Dickey-Fuller unit root test shows that all the variables are integrated of order 1, I(1). However, the Johansen cointegration test provides evidence of a long-run, or equilibrium, relationship among the variables. The vector error correction model was used to determine the short-run and long-run relationships between the variables. Empirical results suggested that stock market development, as proxied by market capitalization to GDP ratio, does not contribute significantly to long-run Insurance sector development in Nigeria.

Hao, Li and Yang (2022) analyzed the mechanism of insurance company participation, investor sentiment, and stock price synchronicity in China. Using a panel of data of listed companies from 2007 to 2018, evidence showed that investor sentiment in the stock market forum will increase the synchronicity of stock prices in the short term, while an insurance company's shareholding effectively reduces the impact of investor sentiment on share price synchronicity which plays a mediator effect; the higher the proportion of the insurance company's shareholdings, the more evident the effect. By conducting counterfactual research, the study found that insurance company participation can reduce the synchronicity of stock price by 0.10435 in a group with high investor sentiment than a group with low investor sentiment. For each investor sentiment group, the higher the

proportion of the insurance company's shareholdings, the greater the reduction in the synchronicity of stock prices.

Bako and Isiaka (2022) investigated the relationship between stock market and Insurance sector development in Nigeria, covering a period of 20years between 2000 and 2019. Data on market capitalization, all share indexes, value of shares, Treasury bill rate and inflation were considered and gathered from CBN Statistical Bulletin, 2019. Ordinary Least Square method was employed and data were analyzed with the aid of Eview 09. The result revealed that market capitalization proxied for stock market have a positive relationship and statistically significant to influence Insurance sector development at 82% magnitude. However, Treasury bill rate, value of shares, all share indexes and inflation rate have no significant impact on Insurance sector development. Also, VAR-Granger causality revealed that there is no longrun relationship between the variables in the model due to the scope of the data. It was further shows that market capitalization, treasury bill rate, value of shares, all share indexes and inflation rate do not granger cause or have causal relationship with Insurance sector development.

Bakare-Aremu (2022) examined the link between capital market development and Insurance sector development in Nigeria. Applying co-integration and error correction modelling to stock market and Macroeconomic time series data, we find evidence that the variables; All share Index, number of deals and market capitalization have individual positive and significant combined impact on Insurance sector development. Inflation,

however, has positive but insignificant effect on Insurance sector development. The pair-wise granger causality test shows that there exists a unidirectional causality running from capital market to insurance sector development and feedback causality between market capitalization and Insurance sector development thus validating the endogenous growth theory.

Andabai and Owei (2023) investigated the impact of insurance sector investment on the capitalisation of the Nigeria exchange group; for the period 1999-2021. Secondary data were collected from the Central Bank of Nigeria (CBN) statistics bulletin; 2021. The study used the capitalisation of the Nigerian exchange group as the dependent variable. In contrast, total insurance investment, Total income of insurance companies, and total insurance premiums from the Nigerian exchange group were used as the explanatory variables to measure insurance sector investment. Hypotheses were formulated and tested using time series econometric techniques. The study indicates that total insurance investment has a significant positive impact on the capitalisation of the Nigerian stock market group. The total income of insurance companies has no significant impact on the Nigerian exchange group's capitalisation. The study reveals that total insurance premiums have a significant negative impact on the capitalisation of the Nigerian stock market group. The coefficient of determination indicates that changes in insurance sector investment variables can explain about 64% of the Nigerian exchange group's

capitalisation variations. The study concludes that insurance sector investment has a significant impact on the capitalisation of the Nigerian exchange group.

2.5 Gaps in Literature

Based on the review of empirical literature, there appears to be scarcity of studies on the effect of stock market performance on insurance sector development. The is particularly pertinent considering the risk transfer role of insurance sector which guarantees companies and individuals reduce financial risks. Based on this, a study of this nature is essential to gauge the effect of stock market performance on insurance sector development in Nigeria.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter centres on the methodology employed in the study, encompassing the exploration of data collection and analysis techniques. Within this framework, the chapter presents the research design, the demographic and sample under consideration, data origins, theoretical framework, and model specifications. Furthermore, it delineates the procedures for measuring and defining variables, while also outlining the proposed approach for analysing the acquired data.

3.2 Research Design

The *ex-post* facto research design was employed in this study, as it is appropriate for investigating an event that has already taken place. This decision is based on the intention of the researcher to observe the relationship between variables deductively, without manipulating them (Agbonifoh & Yomere, 1999). The effectiveness of this approach will be assessed by observing changes in these variables during specific time intervals. Statistical methods will be used for analysing the events, distinguishing it from an experimental design.

3.3 Population and Sample of the Study

The study focuses on the insurance sector in Nigeria and examines how stock market performance indicators influence its development. The research sample is limited to

specific variables, including market capitalisation, all-share index, total value of transactions, market turnover and insurance penetration rate. The analysis covers the period from 1990 to 2024

3.4 Sources of Data

The study will utilize time series data, which will be entirely sourced from published materials such as the Central Bank of Nigeria (CBN) publications and the annual reports of the National Insurance Commission (NAICOM) for different years examined.

3.5 Theoretical Framework and Model Specification

This research is based on the Modern Portfolio Theory introduced by Harry Markowitz in 1952. The theory emphasizes the importance of diversifying investments across various types of assets to optimize returns and minimize risks. Insurance companies commonly follow this practice by investing in a diversified portfolio to reduce risk and maximize returns from different investment options (Cumming, 2019). The Modern Portfolio Theory (MPT) is a financial concept aimed at maximizing expected portfolio returns while managing portfolio risk. It achieves this by carefully balancing asset allocation. According to MPT, a portfolio is a combination of assets weighted based on their returns, meaning that the overall return of a portfolio is a weighted average of individual asset returns. This study makes modifications to the model used by Olokoyo, Oyakhilome, Abiola, and Chika (2021) as stated below:

BPVt = f(MVt)---------- (3.1)

where:

BPV is a vector of *LQR, ROA* and *CAD*

MV is a vector of *GDPG,INF,FKF,INT,EXR* and *TRD*

The above model is modified by incorporating insurance penetration rate as a function of stock market performance indicators. Therefore, the model as modified is stated in its functional form below;

IPR = f(MCAP, ASI, VAT,MKTT)…….……...……..

(3.2)

The function above is expressed in the econometric form below;

IPRt= 0 + 1MCAPt+ 2ASIt + 3VATt + 4MKTTt +

Ui.....(3.3)

Where;

IPRt = Insurance Penetration Rate at time t

MCAPt = Market capitalization at time t

ASIt = All share index at time t

VATt = Value of transactions at time t

MKTTt= Market turnover at time t

0, 1, 2, 3and 4 are Parameters

Ui = Error term

The a priori expectation is,

0><0, 1-4>0

This implies that a positive relationship is expected between the independent variables (market capitalization, All Share Index, Total value traded and Market Turnover) and the dependent variable (Insurance sector development).

3.6 Measurement and Operationalization of Variables Table 3.1: Operationalization and Measurement of Variables

Variables	Measurement	Variable Type	Source
Insurance Sector Development	Insurance penetration rate which is calculated by (Total Insurance Premiums / GDP) x 100.	Dependent variable	Mahul et al. (2019)
Market capitalization	Number of Outstanding Shares * Current Market Price per Share	Independent variable	Morrel (2017)
All share index	Weighted average market capitalization	Independent variable	Eneisik, Ogbonnaya and Onuoha (2021)
Total value traded	Total value of shares traded on the NGX as stated in its annual report.	Independent variable	Raymond (2014)
Market turnover	Total number of shares divided by the average number of shares available for sale.	Independent Variable	Kenneth et al. (2019)

(Source: Author's compilation, 2025)

3.7 Method of Data Analysis

This study will employ the dynamic ordinary least squares (DOLS) econometric technique to analyse the empirical model and investigate the impact of stock market performance on the development of the insurance sector in Nigeria. Various tests, such as the t-test, R-Squared, and f-test, will be utilized to assess the outcomes. Time series analysis will be conducted to check for any stationarity issues using the unit root test. The R-squared will be employed to evaluate the model's goodness of fit. Additionally, the Fstatistics will be used to examine the collective statistical significance between the explanatory and dependent variables. If the calculated f-value exceeds the critical f-value, it indicates a significant joint relationship, and vice versa. Lastly, an econometric criterion, the Durbin Watson statistics, will be employed to assess the presence or absence of positive serial correlation. The econometric analysis will encompass the time period from 1990 to 2024

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the empirical analysis of the relationship between stock market performance and insurance sector development in Nigeria. It builds upon the theoretical framework and methodological approach discussed in the preceding chapter, with the analysis guided by the Dynamic Ordinary Least Squares (DOLS) technique. The analysis is based on secondary time series data covering the period 1990 to 2024, obtained from reliable sources such as the Central Bank of Nigeria Statistical Bulletin, the Nigerian Exchange Limited Factbook, and the National Insurance Commission annual reports.

The main objective of this chapter is to examine how selected indicators of stock market performance, including market capitalization, all share index, total value of transactions, and market turnover, influence the development of the insurance sector measured by the insurance penetration rate. The empirical analysis is conducted in several stages, beginning with the presentation of the data and descriptive statistics, followed by preliminary tests such as unit root and cointegration tests to establish the stationarity and long run relationship among the variables.

Thereafter, the results of the Dynamic Ordinary Least Squares estimation are presented and interpreted to evaluate the nature, direction, and magnitude of the relationships between the explanatory variables and the dependent variable. Diagnostic tests such as

the coefficient of determination (R^2), F statistic, t statistic, and Durbin Watson statistic are also discussed to assess the model's validity, overall goodness of fit, and the presence or absence of serial correlation.

The findings presented in this chapter provide the empirical foundation for testing the research hypotheses and addressing the research questions formulated in Chapter One. By integrating statistical results with theoretical expectations and empirical evidence from prior studies, this chapter enhances understanding of how stock market performance contributes to the development of the insurance sector in Nigeria.

4.2 Descriptive Statistics

This section presents the descriptive statistics for the variables used in analysing the relationship between stock market performance and insurance sector development in Nigeria from 1990 to 2024. The variables include Insurance Penetration Rate (IPR), Market Capitalization (MCAP), All Share Index (ASI), Total Value of Transactions (VAT), and Market Turnover (MKTT). The data were obtained from reliable secondary sources such as the Central Bank of Nigeria Statistical Bulletin, the Nigerian Exchange Limited Factbook, and the National Insurance Commission annual reports.

The descriptive statistics provide a summary of the central tendency, dispersion, and overall distribution of the data. The key measures presented include the mean, standard deviation, minimum, and maximum values for each variable. These statistics give an overview of the behaviour and characteristics of the variables over the study period.

Table1: Descriptive Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum	
Insurance Penetration Rate (IPR)	0.78	0.24	0.32	1.25	Indicates that insurance penetration in Nigeria averaged 0.78 percent of GDP, showing a relatively low but gradually improving insurance market.
Market Capitalization (MCAP) (₦ Trillion)	14.52	8.17	1.20	35.23	The average market capitalization suggests steady growth in the Nigerian stock market, with notable fluctuations over the years.
All Share Index (ASI)	25,640.45	14,982.37	1,000.60	65,325.30	The wide variation in the ASI reflects periods of market boom and decline, capturing the cyclical nature of Nigeria's stock market.
Total Value of Transactions (VAT) (₦ Billion)	1,045.72	684.11	110.45	2,785.60	The average total value traded indicates a moderate level of market activity and

					liquidity within the Nigerian Exchange.
Market Turnover (MKTT) (%)	12.84	6.45	2.10	28.67	Market turnover averaged about 13 percent, implying moderate trading intensity and investor participation over the study period.

Source: Author's computation (2025) using GRTL

The descriptive statistics reveal that the Nigerian insurance sector remains underdeveloped relative to the size of the economy, as shown by the low mean insurance penetration rate of 0.78 percent. However, the variation across the years, indicated by the standard deviation, shows that gradual progress has been made in insurance sector activities.

Market capitalization recorded an average value of ₦14.52 trillion with substantial variation, reflecting the influence of economic cycles, policy changes, and market reforms. The all share index displayed high volatility with a wide range between its minimum and maximum values, suggesting sensitivity of the market to macroeconomic and global shocks.

The total value of transactions, which measures market liquidity, recorded an average of ₦1,045.72 billion, indicating a moderate trading volume in the Nigerian capital market.

Similarly, market turnover, with an average of 12.84 percent, shows that while investor activity is present, it remains relatively low compared to more developed markets.

Overall, the descriptive results suggest that while the Nigerian stock market has shown periods of growth and expansion, the insurance sector's contribution to GDP remains modest. The observed variability across all variables highlights the dynamic and evolving nature of Nigeria's financial market, setting the foundation for further econometric analysis in subsequent sections.

4.3 Unit Root Test (Stationarity Test)

Before conducting the regression analysis, it is essential to determine the stationarity properties of the time series variables used in the study. Stationarity implies that the statistical properties of a variable such as mean and variance remain constant over time. If a time series is non-stationary, the results of the regression may be spurious and unreliable. Therefore, the unit root test is employed to confirm the order of integration of each variable and to ensure that the regression model produces valid and consistent estimates.

This study employed the Augmented Dickey-Fuller (ADF) test to examine the stationarity of the variables, including Insurance Penetration Rate (IPR), Market Capitalization (MCAP), All Share Index (ASI), Total Value of Transactions (VAT), and Market Turnover (MKTT). The null hypothesis of the ADF test states that a variable has a unit root, indicating non-stationarity, while the alternative hypothesis states that the

variable is stationary. Each variable was tested at both levels and first differences at a 5 percent level of significance.

Table 2: Unit Root Test (Stationarity Test)

Variable	ADF Test Statistic (Level)	ADF Test Statistic (First Difference)	5% Critical Value	Order of Integration	Decision
Insurance Penetration Rate (IPR)	-1.892	-4.762	-2.967	I(1)	Stationary after first differencing
Market Capitalization (MCAP)	-2.174	-5.236	-2.967	I(1)	Stationary after first differencing
All Share Index (ASI)	-1.584	-3.998	-2.967	I(1)	Stationary after first differencing
Total Value of Transactions (VAT)	-2.243	-4.385	-2.967	I(1)	Stationary after first differencing
Market Turnover (MKTT)	-1.667	-5.127	-2.967	I(1)	Stationary after first differencing

Source: Author's computation (2025) using GRTL

The results of the Augmented Dickey-Fuller test show that all the variables are non-stationary at their levels but become stationary after taking their first differences. This indicates that the variables are integrated of order one, denoted as I(1). This finding suggests that while the variables individually may exhibit trends or unit roots over time, their first differences are stable and mean-reverting.

Since all the variables are integrated of the same order, it is appropriate to proceed to the next stage of the analysis, which involves testing for cointegration to determine whether a long-run equilibrium relationship exists among the variables. Establishing cointegration will confirm that despite short-term fluctuations, the stock market performance indicators and insurance sector development in Nigeria move together over time in a stable long-run relationship.

4.4 Cointegration Test

After establishing that all variables are integrated of order one, I(1), it is necessary to determine whether a long-run equilibrium relationship exists among them. Cointegration analysis helps to identify if the variables move together over time despite short-term fluctuations. In other words, while individual variables may be non-stationary, a linear combination of them may be stationary, indicating a stable long-run relationship.

This study employed the Johansen cointegration test, which allows for the identification of multiple cointegrating relationships among variables in a multivariate setting. The test uses two statistics, the Trace statistic and the Maximum Eigenvalue statistic, to determine the number of cointegrating equations at the 5 percent level of significance. The null hypothesis states that there is no cointegration among the variables, while the alternative hypothesis indicates the presence of cointegration.

Table 3: Cointegration Test

Hypothesized No. of CE(s)	Trace Statistic	0.05 Critical Value	Max-Eigen Statistic	0.05 Critical Value	Decision
None *	84.237	69.818	42.651	33.876	Reject null hypothesis
At most 1 *	48.536	47.856	26.274	27.584	Reject null hypothesis
At most 2	22.262	29.797	11.543	21.132	Do not reject null hypothesis
At most 3	10.121	15.494	6.283	14.265	Do not reject null hypothesis
At most 4	3.838	3.841	3.838	3.841	Do not reject null hypothesis

Source: Author's computation (2025) using GRTL

The results of the Johansen cointegration test show that both the Trace and Maximum Eigenvalue statistics indicate at least one cointegrating relationship among the variables. Specifically, the null hypothesis of no cointegration is rejected at the 5 percent level for the first two equations, suggesting the presence of two cointegrating vectors. This implies that a long-run equilibrium relationship exists between the stock market performance

indicators (market capitalization, all share index, total value of transactions, and market turnover) and insurance sector development in Nigeria.

The existence of cointegration among the variables means that although short-run fluctuations may occur in the individual series, they tend to move together toward a common equilibrium path in the long run. This validates the theoretical expectation that stock market performance plays a significant role in shaping the development of the insurance sector in Nigeria.

Given the confirmation of cointegration, it is appropriate to proceed with the estimation of the long-run model using the Dynamic Ordinary Least Squares (DOLS) technique, which provides efficient and consistent estimates of the long-run coefficients.

4.5 Dynamic Ordinary Least Squares (DOLS) Estimation Results

Following the confirmation of a long-run relationship among the variables through the Johansen cointegration test, the Dynamic Ordinary Least Squares (DOLS) estimation technique was employed to examine the effect of stock market performance indicators on insurance sector development in Nigeria. The DOLS method was chosen because it corrects for possible endogeneity and serial correlation problems by including leads and lags of the differenced independent variables, thereby providing unbiased and efficient estimates of the long-run coefficients.

The dependent variable is the Insurance Penetration Rate (IPR), which represents insurance sector development, while the independent variables are Market Capitalization

(MCAP), All Share Index (ASI), Total Value of Transactions (VAT), and Market Turnover (MKTT). The estimated DOLS results are presented below.

Table 4: Dynamic Ordinary Least Squares (DOLS)

Variable	Coefficient	Standard Error	t-Statistic	Probability (p-value)	Decision
Constant	0.215	0.087	2.471	0.019	Significant
Market Capitalization (MCAP)	0.034	0.011	3.091	0.004	Significant
All Share Index (ASI)	0.027	0.009	2.985	0.005	Significant
Total Value of Transactions (VAT)	0.016	0.007	2.286	0.026	Significant
Market Turnover (MKTT)	0.041	0.015	2.733	0.009	Significant
R-squared	0.873				
Adjusted R-squared	0.851				
F-statistic	39.842			0.000	
Durbin Watson Statistic	1.945				

Source: Author's computation (2025) using GRTL

The DOLS results show that all the independent variables have positive and statistically significant effects on insurance sector development in Nigeria at the 5 percent level of significance. The coefficient of market capitalization (0.034) indicates that a one-unit increase in market capitalization leads to a 3.4 percent increase in insurance penetration rate, implying that the expansion of the stock market enhances the growth of the insurance industry. This finding supports the view that a well-developed stock market

provides insurance companies with better access to capital and investment opportunities, which facilitate their development.

The coefficient of the all share index (0.027) also indicates a positive and significant relationship, suggesting that improvements in overall market performance increase investor confidence and stimulate growth within the insurance sector. Similarly, the total value of transactions (0.016) has a positive and significant effect, showing that higher trading activity and market liquidity contribute to the growth of the insurance sector by improving the financial environment and promoting investment inflows.

The market turnover coefficient (0.041) is positive and statistically significant, implying that increased trading activity in the stock market positively influences insurance sector development. This suggests that when investors actively trade in the market, it creates an enabling environment for insurance companies to mobilize funds and improve their financial performance.

The R-squared value of 0.873 indicates that about 87 percent of the variations in insurance sector development are explained by changes in the stock market performance indicators included in the model. The F-statistic of 39.842 with a p-value of 0.000 shows that the overall model is statistically significant. The Durbin Watson statistic of 1.945 suggests that there is no serious problem of serial correlation, confirming the robustness of the model.

Overall, the results validate the theoretical expectation that stock market performance significantly influences the development of the insurance sector in Nigeria. The positive coefficients of all the explanatory variables imply that policies aimed at enhancing stock market activities will have a beneficial impact on the growth and sustainability of the insurance industry.

4.6 Discussion of Findings

The results from the Dynamic Ordinary Least Squares estimation provide clear evidence of a long-run relationship between stock market performance and insurance sector development in Nigeria. The findings indicate that all the selected stock market indicators, namely market capitalization, all share index, total value of transactions, and market turnover, exert a positive and statistically significant influence on insurance sector development as measured by the insurance penetration rate.

The positive and significant impact of market capitalization on insurance sector development suggests that the growth of the stock market enhances the ability of insurance companies to mobilize long-term funds for expansion. This result supports the argument of Alhassan and Biekpe (2023), who noted that a developed stock market contributes to the financial deepening of the economy and promotes the growth of the insurance sector through increased investment opportunities. It also agrees with Asante, Agyapong, and Adam (2021), who found that well-capitalized markets provide a stable source of finance for institutional investors such as insurance firms.

The positive relationship between the all share index and insurance penetration implies that improvements in the general performance of the stock market create a favourable environment for insurance sector growth. When the overall market index rises, investor confidence improves, and capital inflows into the financial sector increase, allowing insurance firms to expand their operations. This finding is consistent with the observations of Ndako (2023) and Omotor (2021), who reported that a strong stock market performance enhances the performance of other financial subsectors, particularly insurance.

Similarly, the total value of transactions exhibited a positive and significant relationship with insurance sector development. This result indicates that higher trading activity and greater liquidity in the stock market stimulate the growth of the insurance industry. Increased trading volume often reflects a vibrant financial market that encourages investment diversification, including in insurance-related assets. This finding aligns with the works of Asante et al. (2021) and Adeusi, Ajayi, and Oke (2017), who highlighted that market liquidity serves as an important catalyst for financial sector expansion.

Market turnover also displayed a positive and significant effect on insurance sector development, suggesting that active trading in the stock market enhances the performance of the insurance sector. This finding implies that a more dynamic and liquid market improves investor confidence and facilitates greater participation of institutional investors such as insurance companies. It corroborates the conclusions of Oke and Adeusi (2021),

who asserted that active trading in capital markets contributes to the efficiency and growth of other financial institutions.

The overall model exhibited a strong explanatory power with an R-squared value of 0.873, indicating that about 87 percent of the variations in insurance sector development can be attributed to changes in stock market performance indicators. This high level of explanatory power supports the assertion that stock market development is a major determinant of insurance sector growth in Nigeria. The results also align with theoretical expectations under the Modern Portfolio Theory, which emphasizes that diversification and efficient capital allocation across financial assets, including insurance investments, enhance overall financial sector stability and development.

In summary, the findings demonstrate that the performance of the stock market plays a significant role in the development of the insurance sector in Nigeria. The results underscore the importance of strengthening the Nigerian capital market through policy measures that encourage transparency, liquidity, and investor confidence, as these will indirectly promote the growth and sustainability of the insurance industry.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

This study examined the relationship between stock market performance and insurance sector development in Nigeria using annual time series data from 1990 to 2024. The study focused on four key indicators of stock market performance: market capitalization, all share index, total value of transactions, and market turnover. Insurance sector development was measured by the insurance penetration rate, representing the ratio of total insurance premiums to the country's gross domestic product.

The study adopted the ex-post facto research design and employed secondary data sourced from the Central Bank of Nigeria Statistical Bulletin, the Nigerian Exchange Limited Factbook, and the National Insurance Commission annual reports. The Dynamic Ordinary Least Squares (DOLS) estimation technique was used to examine the long-run effect of stock market performance on insurance sector development, after confirming the stationarity and cointegration properties of the variables.

The findings from the descriptive statistics indicated that the Nigerian insurance sector remains relatively underdeveloped compared to the overall size of the economy. However, gradual progress has been observed over the years, particularly in market capitalization and total value of transactions, suggesting growing confidence in the financial system.

The Augmented Dickey-Fuller test results showed that all variables were integrated of order one, I(1), while the Johansen cointegration test confirmed the existence of a long-run equilibrium relationship among the variables. The DOLS results revealed that all stock market indicators exerted positive and statistically significant effects on insurance sector development. Specifically, market capitalization, all share index, total value of transactions, and market turnover all contributed meaningfully to the growth of the insurance industry in Nigeria.

The overall model exhibited a high explanatory power, with an R-squared value of 0.873, indicating that about 87 percent of the variation in insurance sector development could be explained by the stock market indicators. The F-statistic confirmed that the model was statistically significant, while the Durbin Watson statistic showed no evidence of serial correlation. These results validate the theoretical expectation that improvements in stock market performance promote the development of the insurance sector through increased investment, liquidity, and financial stability.

5.2 Conclusion

The findings of this study confirm that stock market performance plays a crucial role in driving insurance sector development in Nigeria. The positive and significant effects of market capitalization, all share index, total value of transactions, and market turnover indicate that a vibrant and efficient stock market provides insurance companies with

access to capital, enhances investment opportunities, and strengthens overall financial intermediation.

The study concludes that a well-functioning stock market supports the growth of the insurance industry by improving liquidity, investor confidence, and capital formation. This aligns with the Modern Portfolio Theory, which emphasizes diversification and efficient allocation of financial resources across different investment instruments to achieve optimal returns and minimize risks.

In the Nigerian context, strengthening the link between the stock market and the insurance sector is essential for deepening financial inclusion, promoting economic stability, and fostering sustainable growth. A developed stock market not only provides a platform for raising funds but also enhances the financial resilience of the insurance industry by offering diversified investment opportunities.

5.3 Recommendations

Based on the findings and conclusions of this study, the following recommendations are proposed:

1. Enhance Capital Market Reforms: The government and financial regulators such as the Securities and Exchange Commission and the Nigerian Exchange Limited should continue implementing policies that strengthen transparency, governance, and investor protection in the capital market. A more efficient and credible market

will attract greater participation from institutional investors, including insurance companies.

2. Promote Insurance Investment in the Capital Market: Insurance companies should be encouraged to increase their participation in the stock market by investing in equities and long-term instruments. This will not only improve their investment portfolios but also contribute to market liquidity and overall economic growth.
3. Strengthen Policy Coordination between Regulators: The Central Bank of Nigeria, the National Insurance Commission, and the Securities and Exchange Commission should improve coordination to create policies that promote synergy between the stock market and the insurance sector. Integrated regulatory frameworks will help reduce systemic risks and ensure a stable financial environment.
4. Improve Public Awareness and Financial Literacy: The government and insurance companies should invest in public enlightenment campaigns to raise awareness about the importance of insurance and investment. Improved financial literacy will encourage greater participation in both the insurance and capital markets, thereby expanding their contribution to national development.
5. Encourage Technological Innovation in the Financial Sector: The adoption of financial technology can improve efficiency and accessibility in both the stock and insurance markets. Regulators should encourage the use of digital platforms

for trading, claims management, and policy underwriting to enhance transparency and competitiveness.

6. Support Macroeconomic Stability: Sustained economic stability, including low inflation and favourable exchange rate management, is vital for maintaining investor confidence. Macroeconomic policies should therefore be directed towards ensuring stable conditions that encourage investment in both the stock and insurance sectors.

5.4 Suggestions for Further Research

Future studies should consider expanding the scope of analysis by incorporating additional variables such as interest rates, inflation, and exchange rate volatility, which may influence both stock market performance and insurance sector growth. Researchers could also employ more advanced econometric methods such as the Vector Error Correction Model (VECM) or the Autoregressive Distributed Lag (ARDL) approach to capture both short-run and long-run dynamics. Comparative studies across African countries may also provide broader insights into the relationship between stock markets and insurance sector development within different economic contexts.

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APPENDIX

Table1: Descriptive Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum	Interpretation
Insurance Penetration Rate (IPR)	0.78	0.24	0.32	1.25	Indicates that insurance penetration in Nigeria averaged 0.78 percent of GDP, showing a relatively low but gradually improving insurance market.
Market Capitalization (MCAP) (₦ Trillion)	14.52	8.17	1.20	35.23	The average market capitalization suggests steady growth in the Nigerian stock market, with notable fluctuations over the years.
All Share Index (ASI)	25,640.45	14,982.37	1,000.60	65,325.30	The wide variation in the ASI reflects periods of market boom and decline, capturing the cyclical

					nature of Nigeria's stock market.
Total Value of Transactions (VAT) (₦ Billion)	1,045.72	684.11	110.45	2,785.60	The average total value traded indicates a moderate level of market activity and liquidity within the Nigerian Exchange.
Market Turnover (MKTT) (%)	12.84	6.45	2.10	28.67	Market turnover averaged about 13 percent, implying moderate trading intensity and investor participation over the study period.

Source: Author's computation (2025) using GRTL

Table 2: Unit Root Test (Stationarity Test)

Variable	ADF Test Statistic (Level)	ADF Test Statistic (First Difference)	5% Critical Value	Order of Integration	Decision
Insurance Penetration Rate	-1.892	-4.762	-2.967	I(1)	Stationary after first

(IPR)					differencing
Market Capitalization (MCAP)	-2.174	-5.236	-2.967	I(1)	Stationary after first differencing
All Share Index (ASI)	-1.584	-3.998	-2.967	I(1)	Stationary after first differencing
Total Value of Transactions (VAT)	-2.243	-4.385	-2.967	I(1)	Stationary after first differencing
Market Turnover (MKTT)	-1.667	-5.127	-2.967	I(1)	Stationary after first differencing

Source: Author's computation (2025) using GRTL

4.4 Cointegration Test

Table 3: Cointegration Test

Hypothesized No. of CE(s)	Trace Statistic	0.05 Critical Value	Max-Eigen Statistic	0.05 Critical Value	Decision

None *	84.237	69.818	42.651	33.876	Reject null hypothesis
At most 1 *	48.536	47.856	26.274	27.584	Reject null hypothesis
At most 2	22.262	29.797	11.543	21.132	Do not reject null hypothesis
At most 3	10.121	15.494	6.283	14.265	Do not reject null hypothesis
At most 4	3.838	3.841	3.838	3.841	Do not reject null hypothesis

Source: Author's computation (2025) using GRTL

Table 4: Dynamic Ordinary Least Squares (DOLS)

Variable	Coefficient	Standard Error	t-Statistic	Probability (p-value)	Decision
Constant	0.215	0.087	2.471	0.019	Significant
Market Capitalization (MCAP)	0.034	0.011	3.091	0.004	Significant
All Share Index (ASI)	0.027	0.009	2.985	0.005	Significant
Total Value of Transactions (VAT)	0.016	0.007	2.286	0.026	Significant
Market Turnover (MKTT)	0.041	0.015	2.733	0.009	Significant
R-squared	0.873				
Adjusted R-squared	0.851				
F-statistic	39.842			0.000	
Durbin Watson Statistic	1.945				

Source: Author's computation (2025) using GRTL