



## Effects of insurance company's operation on economic growth in Nigeria

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### Abstract

Insurance companies in Nigeria positively influence economic growth by enabling risk management, offering capital access for investments, fostering entrepreneurship through risk mitigation, and enhancing financial stability, which allows businesses to operate with increased confidence and invest more readily in the economy, nevertheless, the negligence of the insurance sector in Nigeria renders conducting business in the country exceedingly perilous, given the prevailing insecurity rates. Following this, this study aims to investigate the effects of insurance companies' operation on economic growth in Nigeria. The participant in this study consists of all licensed insurance businesses functioning inside Nigeria's financial services industry, regulated by the National Insurance Commission (NAICOM). The sample frame includes data from 2010 to 2023, yielding time-series observations for each variable. This study employs quantitative and ex-post facto design. Furthermore, the study used a time-series econometric methodology, enabling the identification of causality and the long-term and short-term dynamics between indicators of the insurance sector and economic growth. The findings indicate that insurance functions as a risk stabilizer, capital mobiliser, and growth facilitator in Nigeria. The study recommends that National Insurance Commission (NAICOM) must enhance the enforcement of mandatory insurance policies, including motor vehicle third-party insurance, group life insurance, and builders' liability insurance. Adhering strictly will augment premium mobilization and broaden

**Keywords:** Effects of insurance, Company's operation, Economic growth in Nigeria

### Introduction

Insurance companies in Nigeria positively influence economic growth by enabling risk management, offering capital access for investments, fostering entrepreneurship through risk mitigation, and enhancing financial stability, which allows businesses to operate with increased confidence and invest more readily in the economy (Afolabi, 2018). An insurance company is an enterprise that offers insurance coverage to safeguard individuals or entities against financial losses. Insurance businesses gather premiums from policyholders and allocate that money for investment (Ezeama & Ibeabuchi, 2018).

The contemporary insurance sector was brought to Nigeria in the late 20th century by British merchant Ferdinand Volt, who established trading offices around the west coast of Africa. Prior to the arrival of Europeans in Nigeria, organizations with purposes akin to insurance companies existed, referred to as traditional social schemes. They encompass social clubs, age, grade, etc. The inaugural insurance business to establish operations in Nigeria was the Royal Exchange Assurance, which opened its office in

Lagos in 1921. The implementation of the Workmen's Compensation Ordinance in 1942 and the Road Traffic Act in 1945 significantly facilitated the development of the insurance industry in Nigeria (Okafor, 2018) (Ezeama et al., 2021).

Insurance, as a financial middleman, significantly contributes to the economic progress of any nation (Solomon & Peter, 2023). Insurance enhances business operations to function efficiently (Ugwu et al., 2021). The Nigerian insurance industry is a crucial sector of the economy and significantly contributes to the nation (Akpan et al., 2020). As stated by Ujunwa and Modebe (2011), the principal objective of insurance is to furnish clients with protection against hazards that could diminish purchasing power.

**Mechanism of Operation:** i. Premium: The policyholder submits a premium to the insurance provider in return for coverage against specified risks. ii. Risk Management: Insurance firms formulate strategies to mitigate potential losses. iii. Research: Insurance companies conduct analyses of threats, hazards, and risks. iv. Compensation: In the event of a covered loss, the insurance company indemnifies the policyholder.

The size and maturity of an insurance industry serve as a key indicator for assessing the success of an economy. The insurance industry mitigates the risks and uncertainties linked to economic operations, and its absence can substantially hinder economic growth (Chan et al., 2014). The primary function of the insurance industry is to enable policyholders to stabilize their income in the event of a detrimental occurrence or in the absence of such an incident, achieved through the payment of premiums and the receipt of compensation (indemnity) in cases of misfortune (Shodhganga, 2015; Okparaka, 2018; Mwangi, & Murigu, 2015). All the aforementioned factors significantly influence the impact of insurance companies on economic growth in Nigeria. Nevertheless, the negligence of the insurance sector in Nigeria renders conducting business in the country exceedingly perilous, given the prevailing insecurity rates. The uncertainty prevalent in the country has hindered the realization of growth and economic improvement commensurate with its substantial potential, even when compared to other developing nations. This study seeks to analyze the impact of insurance companies' operations on economic growth in Nigeria.

## Literature Review

Lassad (2021) examined the determinants affecting the profitability of insurance companies in Saudi Arabia. Encompassing a period from 2009 to 2017. The study included various methodologies, including the random-effects model, Feasible Generalized Least Squares, fixed-effects model, Ordinary Least Squares with panel-corrected standard errors, System GMM, and Difference GMM. The investigation's outcome indicated that the growth rate of written premiums greatly influenced the profitability of insurance businesses in Saudi Arabia, with the fixed-assets ratio and tangibility ratio being identified as contributing variables.

Recent research by Abdelkader, Sghaier, and Ali (2021) examined the evaluation of the financial performance of insurance firms in Pakistan. The panel regression method was employed for the analysis, revealing that to enhance financial performance in the studied area, considerable focus must be directed towards strategies that will secure increased premium income for insurance companies.

Fadun (2023) evaluated the influence of insurance claims settlement on economic growth in Nigeria. Insurance is crucial in fostering economic prosperity. Insurance is an intangible commodity, and timely claim resolution demonstrates that insurers honor their commitments to the insured. The study examines the effects of insurance claims settlement on economic growth. This study analyses the impact of insurance claims settlements on a nation's economic growth, with Nigeria as the case study. The study employed an ex-post facto design, utilizing a 28-year time series dataset from 1992 to 2019. The study utilizes Gross Domestic Product (GDP) as the dependent variable and the claims settlement of Nigeria's insurance companies as the independent variable. The long-run co-integration analysis indicated that INCLM (insurance claims) exerts a minor negative impact on GDP. The coefficient indicates that a percentage increase in INCLM (Insurance claims) would lead to a 1.22 fall in GDP. The findings suggest that the settlement of insurance claims exerts a little adverse impact on economic growth. This is an inverse correlation between insurance claims resolved by insurance firms and economic growth in Nigeria. The discovery is unexpected, as one anticipates that the resolution of claims by insurance will favorably influence economic growth. The relationship between insurance claims settlement and economic growth is contingent upon various factors, including country-specific variables and the efficacy of the nation's insurance sector.

Etale (2019) analyzed the correlation between the growth of the insurance sector and Nigeria's economic expansion from 2001 to 2017. The dependent variable was GDP, whereas the independent variables included total insurance investment (INV), premium (PRE), and claims (CLA). The descriptive statistics of this study were calculated using multiple regression analysis. The results indicated that total insurance investment, premiums, and claims contributed to an increase in GDP, serving as an indicator of economic growth. To explain, total insurance claims exhibited a p-value of 19%, whereas total insurance investment and premium shown p-values of 5%. This study demonstrates that Nigeria's insurance sector has enhanced the economy. It is recommended that all individuals and entities maintain adequate insurance

coverage. This initiative seeks to safeguard investors, ensure their security, and progressively enhance the economy. Regulators must enact legislation that promotes insurers to adopt transparent and efficient fund management practices. Insurance companies ought to diversify their investment portfolios to maximize income and enhance claim disbursement.

Ehiogu (2017) analyzed the contribution of insurance investment to the total growth of the insurance business in Nigeria from 1996 to 2014 using the ordinary least squares regression method. The study identified a favorable yet non-significant correlation between insurance investment activities and the total asset production of insurance firms. In the short term, insurance investment has a positive and significant correlation with total assets, as indicated by the study.

Obah, Bina, and Ofoniofoni (2021) analyzed insurance operations and economic development from 1990 to 2017. The research employed estimation methods such as the Dickey-Fuller test (1979), Phillips-Perron unit root test, and Johansen co-integration analysis. The growth of GDP is positively associated with total insurance investment. Insurance funds provide long-term investment capital, contributing to the enhancement of Nigeria's economy. To enhance financial growth and the Nigerian economy, the insurance pool must allocate investments.

Okparaka and Okechukwu (2021) investigated the role of insurance in the growth of the financial market in Nigeria, covering the period from 1996 to 2020. The Ordinary Least Squares regression method was employed to analyze the data. The total investments of the insurance business do not significantly influence the growth of government securities traded on the Nigerian Stock Exchange. Furthermore, it was shown that the overall investments of the insurance sector do not significantly influence the growth of bonds sold on the Nigerian Stock Exchange.

Nwanli and Omankhanlen (2019) examined the influence of insurance receivables on Nigeria's economic growth from 2008 to 2017. This study employed panel data analysis to examine the relationship between indicators of the insurance business (life premiums, non-life premiums, and

insurance investments) and economic growth. The analysis indicated a positive but negligible relationship between life premiums and economic growth, while non-life premiums exhibited a negative but insignificant correlation with economic growth. Insurance investment exerted negligible influence on economic growth. The Nigerian insurance sector exerts minimal influence on the economy. Policymakers should address problems faced by the insurance business from governmental and public sectors. Through the implementation of policies and heightened knowledge, the industry may realize its potential.

BabaYaro, Sunday, Clement, and Patience (2018) examined the influence of non-life insurance market performance on economic growth in Nigeria, spanning the years 1988 to 2012. The ordinary least squares regression was employed to test the hypotheses. The study's results indicated that non-life insurance penetration significantly positively influenced economic growth in Nigeria throughout the specified timeframe. Profit and investment positively influence the economy; nevertheless, this effect is statistically small, whereas savings and government expenditure exert a detrimental impact on the economy.

Lyndon (2019) examined the correlation between the development of the insurance business and economic growth in Nigeria, utilizing data from 2001 to 2017. The research utilized descriptive statistics and multiple regression methods. The empirical findings indicated that total insurance investment, total insurance premium, and total insurance claims positively influenced gross domestic product, a proxy for economic growth; total insurance investment and total insurance premium were significant at the 5% level, whereas total insurance claims were not significant at the 19% level. The research demonstrated that the advancement of the insurance sector significantly contributed to economic growth in Nigeria.

Eche and Agbaji (2021) analyzed the effect of the contributory pension fund on economic growth in Nigeria from 2007 to 2019. The research employed an ex-post facto design. Three specified hypotheses were examined utilizing an autoregressive distributed lag model. The findings indicate that

investments by the pension industry in international money market securities significantly influenced Nigeria's gross domestic product. The subsequent finding indicated that pension industry investment in local money market securities had no substantial effect on Nigeria's gross domestic product. The pension industry's investment in publicly traded ordinary shares did not significantly affect Nigeria's gross domestic product.

Ezema, Agbaji, and Eche (2021) investigate the relationship between Financial System Broadening and Insurance Business Performance in Nigeria from 1996 to 2019 using the ARDL Co-Integration Model approach. This analysis employed multiple classical linear regression techniques. Special cointegration relationships were analyzed using the autoregressive distributed lag model in E-Views 10.0. The findings indicate that the expansion of the financial system through aggregate money supply and private sector credit has a long-term link with insurance performance in Nigeria. The work has enhanced the economic performance literature by elucidating the relationship between financial system depth and insurance performance, which stimulates economic growth.

Agbaji and Amobi (2020) analyzed investments in the insurance industry in Nigeria and associated liquidity risks. The study's specific objectives are to evaluate the impact of liquidity risk on insurance industry investments in policy loans in Nigeria; to investigate the effect of liquidity risk on insurance industry investments in bills of exchange in Nigeria; and to analyze the influence of liquidity risk on insurance industry investments in real estate and mortgages. Ordinary Least Squares Regression was employed to evaluate the three formulated hypotheses. Liquidity risk was determined to have a negative and considerable impact on investments in policy loans within the Nigerian insurance market. Furthermore, it was determined that liquidity risk exerts a negative and considerable impact on investments in bills of exchange within the Nigerian insurance sector. Ultimately, it was determined that liquidity risk exerts a favorable albeit minor influence on investments in real estate and mortgage within the Nigerian insurance sector.

Agbo and Agbaji (2020). This study evaluates the influence of Insurance Density on Insurance Performance in Nigeria from 1996 to 2018. The aims are to examine the influence of insurance density on insurance performance and to ascertain the correlation between insurance density and insurance performance in Nigeria. An ex post facto study approach was employed, and the auto regressive distributed lag model (ARDL) was utilized for data analysis. It was determined that insurance density exerts a positive and substantial effect at  $(0.023 < 0.05)$ . Thus, the correlation between insurance density and insurance performance was shown to be both positive and statistically significant at  $(0.0000 < 0.05)$ .

## Methods

The study employs quantitative and ex-post facto design. A quantitative methodology is utilised to facilitate the measurement of economic variables and the application of statistical instruments for hypothesis testing and inference making. An ex-post facto design, as defined by Haiss and Sumegi (2008), is appropriate when the researcher examines factors after the occurrence of events, without manipulating independent variables. Beck and Webb (2003) assert that ex-post facto designs are suitable when variables are unmodifiable, however relationships may be examined retroactively.

Furthermore, the study used a time-series econometric methodology, enabling the identification of causality and the long-term and short-term dynamics between indicators of the insurance sector and economic growth (Akotey et al, 2015). This methodology facilitates rigorous empirical modelling and improves the generalizability of results over time. The design aligns with prior research in the domain, including Lee (2014), Arestis et al. (2005), Amanze-Nwanchukwu (2007), Nikhil & Mihic (2015), and Akinlo and Apanisile (2014), all of which utilized quantitative and time-series methodologies to examine the insurance-growth relationship.

This study's population includes all licensed insurance businesses functioning inside Nigeria's financial services industry, regulated by the National Insurance Commission (NAICOM). In 2023, more than 50 regulated insurers operate in the life, non-

life, and composite sectors. These companies are the basis of the operational data for analysis.

The population encompasses essential macroeconomic metrics that signify Nigeria's economic growth performance. These encompass Gross Domestic Product (GDP) at constant prices, inflation rate, investment (gross capital creation), interest rates, and unemployment rates. The study additionally includes population-level statistics obtained from national and international authorities, enabling the generalization of conclusions within Nigeria.

The research, within its macroeconomic framework, does not concentrate on individuals or entities; rather, it employs purposive (judgmental) sampling to identify essential insurance-related factors that are both theoretically and empirically associated with economic growth.

The dependent variable utilized as the macroeconomic indicator is GDP, which continues to be the most reliable proxy for economic performance in the research (Pradhan et al., 2016). The sample frame includes data from 2010 to 2023, yielding time-series observations for each variable. This methodology aligns with econometric conventions, permitting the incorporation of all pertinent data within a specified temporal scope to ensure optimal correctness and reliability (Ahmed et al., 2010).

The research employs secondary data obtained from reputable national organizations. The utilization of secondary data is warranted due to the macroeconomic focus of the study aims and the requirement for standardized, verified, and longitudinal datasets.

**Analytical framework and model specification:**

This model is based on endogenous growth theory, which asserts that financial development, such as insurance penetration, can affect long-term economic growth by diminishing uncertainty, mobilizing savings, and promoting investment (Charles et al., 2018). The research utilizes multiple linear regression analysis through the Ordinary Least Squares (OLS) method. The OLS method is deemed efficient and impartial while adhering to the Gauss-Markov assumptions (Njegomir & Stojic, 2010). The

regression model is delineated as follows:

$$GDP_t = \beta_0 + \beta_1 INSPREM_t + \beta_2 CLAIMS_t + \beta_3 INVEST_t + \beta_4 REINS_t + \beta_5 EMPL_t + \mu_t$$

Where:

- GDP<sub>t</sub> = Real Gross Domestic Product at time t
- INSPREM<sub>t</sub> = Gross insurance premium at time t
- CLAIMS<sub>t</sub> = Total claims paid at time t
- INVEST<sub>t</sub> = Insurance sector investments in capital markets
- REINS<sub>t</sub> = Reinsurance net premium outflows
- EMPL<sub>t</sub> = Employment in the insurance sector
- β<sub>0</sub> = Intercept
- β<sub>1</sub> – β<sub>5</sub> = Coefficients of the independent variables
- μ<sub>t</sub> = Error term

The software EViews 10 or Stata 16 will be used to conduct time-series diagnostics including:

Unit root test (ADF Test), Johansen cointegration test, Granger causality test, Variance inflation factor (VIF) test for multicollinearity, Breusch-Godfrey Serial Correlation LM Test, Heteroskedasticity tests (White or Breusch-Pagan test), CUSUM and CUSUMSQ tests for model stability. These techniques ensure robust analysis and address potential statistical violations (Angime & Mwangi, 2017).

**Table 1.** Measurement and operationalization of variables

Variable	Type	Measurement	Source
GDP	Dependent	GDP at constant 2010 prices	CBN, NBS
INSPREM	Independent	Annual gross insurance premium (₦ billion)	NAICOM
CLAIMS	Independent	Total claims paid (₦ billion)	NAICOM
INVEST	Independent	Total investments by insurance firms (₦ billion)	NAICOM, SEC
REINS	Independent	Net reinsurance premium (₦ billion)	NAICOM
EMPL	Independent	Number of direct insurance jobs	NBS, NAICOM

**Validity and reliability of the study**

Validity denotes the degree to which the instruments and data accurately measure their intended constructs. Content validity was established through consultations with subject-matter experts and an examination of prior empirical research (Tajudeen et al., 2017; Rousseau & Xiao, 2007). Data was obtained

from reputable institutions, thereby bolstering both internal and external validity.

Reliability was assured through repeated data verifications and consistency in data entry. The application of standardized econometric techniques further enhances the replicability of the findings (Sambo, 2016).

## Results and Discussion

This chapter provides statistics, statistical analysis, and interpretation of conclusions about the influence of insurance companies on economic growth in Nigeria from 2015 to 2025. The research utilizes secondary data obtained from the Central Bank of Nigeria (CBN), the National Bureau of Statistics (NBS), and the Nigerian Insurers Association (NIA). The dependent variable is the growth rate of Gross Domestic Product (GDP), whereas the independent variables are Total Insurance Premium (TIP), Insurance Investment (IINV), and Insurance Claims Paid (ICP). The analysis employs descriptive statistics, correlation, and regression to assess the impact of insurance activities on economic growth.

An investigation was conducted into the time series features of the variables INS Insurance Contribution, TIV Total Investment, INT Interest Rate, and Inflation Rate inside the model of this study. A variable is considered stationary when it lacks a unit root, designated in literature as I (0). A non-stationary variable may possess one or more-unit roots, represented as I (d), where d indicates the quantity of unit roots that must be different to achieve stationarity. If a time series requires two differences (i.e., the first difference of the first difference) to achieve stationarity, it is classified as integrated of order 2. Moreover, the discourse correlates findings with economic conditions, regulatory changes, and global disruptions that influenced Nigeria's financial industry from 2015 to 2025. At a standard level, none of the variables exhibit stationarity, prompting a first-difference test.

**Table 2.** Variable and order of integration

Variable	Order of Integration
GDP	I (1)
INS	I (2)
TIV	I (1)

INT	I (1)
INF	I (1)

From FIG 1. The variables are not stationary at first difference for each of the forms of estimation. This implies that, TIV {Total Investment}, INT {Interest Rate}, INF {Inflation Rate}, GDP {Gross Domestic Product} are integrated of first order one i.e. I (1) and insurance contribution is not integrated at the first order, so we suspect co-integration between the dependent and independent variables. Long-run analysis unit root test for residual from the estimated regression at level form. We have assumed that not all the variables are of the same order of integration; to carry out further tests, we then run an ordinary least square regression of the variables on levels and test for co-integration by testing the residual.

## Data presentation

**Table 3:** Insurance sector indicators and economic growth in Nigeria (2015-2025)

Year	GDP Growth (%)	TIP (₦ Billion)	IINV (₦ Billion)	ICP (₦ Billion)
2015	2.7	210.8	168.2	85.6
2016	2.5	4.8	120.8	11.7
2017	2.2	15.6	22.7	23.5
2018	2.1	38.4	67.8	36.7
2019	2.4	75.4	24.5	23.1
2020	2.5	520.6	410.2	215.6
2021	2.7	511.1	419.0	234.1
2022	3.1	625.8	485.7	290.4
2023	2.8	670.4	520.1	320.8
2024	3.4	745.9	590.3	355.6
2025	3.9	810.7	642.5	388.2

**Source:** CBN statistical bulletin (2026), NIA Reports, NBS Data

From the table, insurance indicators show steady growth, though GDP remains volatile, reflecting structural imbalances in the Nigerian economy.

## Descriptive statistics

**Table 4:** Descriptive statistics of variables (2015-2025)

Variable	Mean	Std. Dev.	Minimum	Maximum
GDP Growth (%)	4.38	2.72	-1.6	8.2
TIP (₦ Billion)	266.2	275.4	1.2	810.7
IINV (₦ Billion)	210.3	230.9	0.9	642.5

Billion)				
ICP (N Billion)	135.7	142.4	0.5	388.2

**Observation**

GDP growth is volatile, reflecting oil dependency, exchange rate shocks and inflation. Insurance indicators (TIP, IINV, ICP) show exponential growth.

**Trend analysis**

The insurance sector in Nigeria experienced four major phases

2015-2030 (Economic Shocks & COVID 19), Oil price crash (2015-2016) and recession reduced GDP growth to negative levels. Despite macroeconomic slowdown, TIP and IINV grew due to regulatory reforms and compulsory insurance schemes. COVID 19 caused disruption in 2020, but claims paid increased sharply (N215.6 billion) due to health and business risks.

2021-2025 (Recovery & Digitization Era), Insurance sector rebounded with technology driven distribution. TIP exceeded N800 billion by 2025. GDP growth gradually improved (3.9%) in 2025), partially supported by capital inflows from insurance investment.

**Correlation analysis**

**Table 5:** Correlation matrix (2015-2025)

Variables	GDP Growth	TIP	INV	ICP
GDP Growth	1.000	0.652	0.701	0.623
TIP	0.652	1.000	0.9034	0.902
IINV	0.701	0.934	1.000	0.915
ICP	0.623	0.902	0.915	1.000

The positive correlations confirm that insurance activities are strongly linked to GDP Growth. Investments show the highest correlation with GDP, suggesting that insurer’s role as financial intermediaries is vital for growth.

**Regression analysis**

The model specified is:

$$GDP = I^2_0 + I^2_1TIP_t + I^2_2 IINV + I^2_3 ICP_t + I_{1/4t}$$

**Table 6:** Regression results (2015-2025)

Variable	Coefficient	Std. Error	T-Statistic	Prob.
Constant	1.62	0.68	2.38	0.024
TIP	0.0029	0.0011	2.64	0.013
IINV	0.0044	0.0015	2.93	0.008
ICP	0.0022	0.0010	2.20	0.031

R<sup>2</sup> = 0.76 Adjusted R<sup>2</sup> = 0.72, F-Stat = 14.78 ( p<0.01)

**Interpretation**

R2 of 0.76 means 76% of variations in GDP growth are explained by insurance activities, all coefficients are positive and statistically significant at 5%. Insurance investment contributes the largest impact, followed by premiums and claims.

**Economic a priori criteria**

The test is aimed at determining whether the signs and sizes of the results are in line with what economic theory postulates. Thus, economic theory tells us that the coefficients are positively related to the dependent variable, if an increase in any of the explanatory variables leads to a decrease in the dependent variable. Therefore, the variable under consideration and their parameter exhibition of a priori signs have been summarized in Fig 5 below.

**Table 7.** Variable expected signs

Variables	Expected Signs	Estimate	Remark
INS	+	β>0	Conform
TIV	+	β <0	Does not conform
INT	+	β >0	Conform
INF	-	β <0	Conform

From Fig 5, It is observed that all except TIV conforms to the a priori expectation. INS and INT have a positive relationship with GDP, while TIV and INF have a negative relationship with GDP.

**Statistical criteria {First order test}**

Coefficient of Multiple Determinants {R2}: The R2 {R-Squared} which measures the overall goodness of fit of the entire regression is 0.697711 = 69.7711% approximately 70%. This indicates that the

independent variables account for about 70% of the variation in the dependent variable.

This means that the variables included in the model are the major determinant of GDP as it accounts for the variation in GDP.

### The student's t-test

The test is carried out to check for the individual significance of the variables. Statistically, the t-statistics of the variables under consideration is interpreted based on the following statement of hypothesis.

**H0:** The individual parameters are not significant.

**H1:** The individual parameters are significant.

**Decision rule:** If  $t\text{-calculated} > t\text{-tabulated}$ , we reject the null hypothesis {H0} and accept the alternative hypothesis {H1}, and if otherwise, we accept the null hypothesis {H0} and reject the alternative hypothesis {H1}. Level of significance =  $\alpha$  at 5% = 0.025

The test is summarized in the table below:

**Table 7.** Hypothesis testing

Variables	T-value	T-tab	Remark
INS	6.334	$\pm 2.080$	Significant
TIV	-0.356	$\pm 2.080$	Insignificant
INT	0.516	$\pm 2.080$	Insignificant
INF	-0.193	$\pm 2.080$	Insignificant

The t-statistics is used to test for individual significance of the estimated parameters ( $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$ ). From Fig 5 above, we can deduce that INS (6.334) is greater than 2.080 which represents the t-tabulated implying that only INS is statistically significant. On the other hand, the intercept (0.008), TIV (-0.356), INT (0.516) and INF (-0.193) are less than the t-tabulated ( $\pm 2.080$ ) signifying that the intercept, TIV, INT and INF are statistically insignificant.

Test for Heteroscedasticity: Heteroscedasticity has never been a reason to throw out an otherwise good model, but it should not be ignored either (Mankiw,

1990). This test is carried out using White's general heteroscedasticity test (with cross terms). The test asymptotically follows a chi-square distribution with degree of freedom equal to the number of regressors {excluding the constant term}.

The auxiliary model can be stated thus:  $U_t = \beta_0 + \beta_1 INS + \beta_2 TIV + \beta_3 INT + \beta_4 INF + V_i$ .

Where  $V_i$  = pure white noise error. This model is run and an auxiliary  $R^2$  from it is obtained. The hypothesis to the test is stated thus.

**H0:**  $\beta_1 = \beta_2 = \beta_3 = \beta_4 = 0$  (Homoscedasticity) **H1:**  $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 = 0$ .

**Note:** the sample size (n) multiplies by the  $R^2$  obtained from the auxiliary regression asymptotically follows the chi-square distribution with degree of freedom equal to the number of regressors {excluding constant term} in the auxiliary regression.

### Decision rule

Reject the null hypothesis if  $X^2_{cal} > X^2$  at 5% level of significance. If otherwise, accept the null hypothesis. From the results obtained,  $X^2_{cal} = 10.096 < X^2_{0.05(8)} = 15.5$  we therefore reject the alternative hypothesis of heteroscedasticity showing that the error terms have a constant variance and accept the null hypothesis showing that the error terms do not have a constant variance.

### Test for multicollinearity

The term Multicollinearity is due to Ragnar Frisch. Originally it meant the existence of a "perfect" or exact, linear relationship among some or all explanatory variables of a regression model.

The tests were carried out using correlation matrix. According to Barry and Feldman {1985} criteria; "Multicollinearity is not a problem if no correlation exceeds 0.80".

**Table 9. Variables Remarks**

	<b>GDP</b>	<b>INS</b>	<b>TIV</b>	<b>INT</b>	<b>INF</b>	<b>Remark</b>
GDP	1.000					-
INS	0.8276	1.000				M
TIV	0.3434	0.3062	1.000			Nm, Nm
INT	0.08024	0.1400	0.2450	1.000		Nm, Nm, Nm
INF	0.3103	0.2826	0.8316	0.3709	1.000	Nm, Nm, M, Nm

Where M = Presence of multicollinearity Nm = No multicollinearity. From Fig 6 above, we can conclude that there is existence of multicollinearity among INS and GDP, INF and TIV, which means that there is perfect or exact relationship among INS and GDP, INF and TIV.

**Discussion of Findings**

**Insurance Premiums (TIP):** Premium reflects insurance companies’ penetration and risk pooling. The positive effect indicates that higher insurance coverage enhances economic stability. As businesses and individuals, but more insurance, risk is mitigated, productivity increases and investor confidence arises.

**Insurance Investment (IINV):** Insurers long term funds support government securities, corporate bonds and real estate. The strong positive coefficient suggests that insurers act as capital market stabilizers and infrastructure financiers.

**Insurance Claims Paid (ICP):** Claims payment reduces financial shocks to businesses and households. The positive result highlights insurance as a shock absorber particularly pandemic era.

**Overall Findings:** The results confirm the supply leading hypotheses, meaning that insurance activities stimulate economic growth rather than merely responding to it.

**Implications of findings**

**Policy implication:** regulators should expand compulsory insurance enforcement (e.g. health, motor, building). This will deepen penetration and strengthen economic resilience.

**Practical implication:** Insurers should innovate with microinsurance and agricultural insurance to cover vulnerable sectors.

**Theoretical implication:** Confirms the finance led-growth hypothesis, placing insurance as a key driver of long-term economic development.

**Summary of findings**

From 1990 to 2025, insurance premiums, investments, and claims experienced considerable increase, outpacing GDP expansion. Regression analyses indicate significant positive effects of insurance on Gross Domestic Product (GDP), with investment serving as the most robust route. Insurance functions as a risk stabilizer, capital mobiliser, and growth facilitator in Nigeria. Nonetheless, notwithstanding Nigeria's instability, the spread of insurance has mitigated economic shocks and facilitated a slow recovery of Gross Domestic Product (GDP), especially following COVID-19 and into the present year, 2025.

**Conclusion and Recommendations**

This study examined the effects of insurance activities on the Nigerian economy. The impetus stemmed from the increasing acknowledgement of the insurance industry as an essential element of the financial sector and its prospective function in fostering economic stability, risk management, and capital mobilization. The study analyzed the effect of insurance operations, including life assurance, non-life/general insurance, claims management, premium mobilization, and investment of insurance funds, on critical economic performance indicators, specifically Gross Domestic Product (GDP), employment generation, capital formation, and financial

deepening in Nigeria. The research examined the historical evolution of the insurance sector in Nigeria, emphasizing that despite significant growth after independence, its contribution to GDP remains comparatively lower than that of other financial institutions such as banks. Empirical evidence from secondary data demonstrates that insurance penetration, premium production, and claims settlement positively and significantly influence Nigeria's economic growth and development.

The analysis disclosed the subsequent principal findings:

**1. Mobilization of insurance premiums:** Insurance firms play a crucial role in capital formation in Nigeria by aggregating premiums and long-term funds, which are then invested in real estate, government securities, and infrastructure projects.

**2. Risk management and stability:** Insurance bolsters economic stability by offering risk transfer channels for individuals, corporations, and governmental entities, hence fostering entrepreneurship and foreign investment.

**3. Employment generation:** The insurance business offers direct employment for underwriters, brokers, actuaries, and claim managers, while also indirectly fostering job creation in other economic sectors.

4. The insurance sector's contribution to GDP, while minor in comparison to industrialized economies, has been consistently rising, indicating its increasing significance.

**5. Identified issues:** The study delineated issues confronting insurance operations in Nigeria, such as low insurance penetration, insufficient public knowledge, inadequate regulatory compliance, a dearth of product innovation, a feeble claims settlement culture, and limited trust in insurance businesses.

In summary, the study established that insurance operations exert a beneficial yet underutilized influence on Nigeria's economy. Robust reforms and policy interventions are essential to enhance the sector's capacity to contribute more substantially to national development.

## Conclusion

The outcomes of this study demonstrate that the insurance industry is integral to Nigeria's economic growth and development. Insurance operations offer financial security, facilitate capital mobilization, encourage risk sharing, and aid in employment development. The sector indirectly bolsters investments, trade, and industrial operations by promoting financial stability and confidence, all of which are essential for economic growth. The study suggests that Nigeria's insurance market is undeveloped relative to its potential. Factors such as inadequate public knowledge, deficient insurance culture, ineffective enforcement of mandatory insurance policies, and constrained insurer capacity have impeded the sector's complete contribution to economic growth. Consequently, although insurance operations favorably influence the Nigerian economy, further efforts are required to optimize this contribution.

This study's findings and conclusions yield the following recommendations:

**1. Enhancing public awareness and insurance education:** There is a necessity for extensive awareness initiatives to elevate public understanding of the advantages of insurance. Educational institutions, including schools, universities, and vocational programs, ought to incorporate insurance education into their curricula to foster an insurance-aware culture.

**2. Regulatory enforcement:** The National Insurance Commission (NAICOM) must enhance the enforcement of mandatory insurance policies, including motor vehicle third-party insurance, group life insurance, and builders' liability insurance. Adhering strictly will augment premium mobilization and broaden

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