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Claims Settlement Efficiency And Insurance Market Development: Sectoral Evidence From Nigeria's Insurance Industry

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Abstract: This study examines the impact of claims settlement practices on insurance policy demand across Nigeria's primary insurance sectors from 2010 to 2023. Employing the Autoregressive Distributed Lag (ARDL) bounds testing methodology, the research addresses critical knowledge gaps concerning the relationship between claims settlement efficiency and market penetration in emerging economies. The study utilises secondary time series data from the National Insurance Commission (NAICOM), Nigerian Insurers Association (NIA), and Central Bank of Nigeria (CBN) to analyse sector-specific relationships across life, fire, and oil and gas insurance markets. Unit root testing revealed mixed integration properties, with premium income achieving stationarity at levels while claims settlement variables required first differencing, validating the ARDL approach for examining long-run equilibrium relationships. The bounds test confirmed cointegration amongst variables, establishing the existence of stable long-term relationships. The empirical findings reveal significant sector-specific variations in the relationships between claims settlement demand. Fire claims settlement exhibits a statistically significant negative impact on insurance demand (coefficient = -0.320, p = 0.002), contradicting conventional theoretical expectations. Life claims settlement demonstrates a positive but statistically insignificant relationship (coefficient = 0.388, p = 0.079), while oil and gas claims settlement shows negative and insignificant effects (coefficient = -0.242, p = 0.090). These results indicate that only the settlement of fire insurance claims significantly influences aggregate insurance demand, suggesting that heightened risk perceptions may discourage policy acquisition, despite theoretical predictions of a positive relationship. The study contributes to understanding insurance market dynamics in developing economies. It provides empirical evidence for the formulation of regulatory policies and the enhancement of industry practices in Nigeria's insurance sector.

Keywords:**Premium, Demand for Insurance Policy, Life Claim Settlement (LCS), Fire Claim Settlement (FCS) and Oil and Gas Claim Settlement (OGCS)**

Introduction

The contemporary risk landscape presents individuals and organisations with multifaceted exposure to hazards spanning routine operational risks to catastrophic events of considerable magnitude. While the complete elimination of risk remains practically unfeasible, established risk transfer mechanisms, particularly insurance arrangements, facilitate the redistribution of financial exposure from risk-bearers to specialised risk-taking entities in exchange for predetermined premium payments (Insurance Europe; Outreville, 2018). The insurance mechanism thus serves as a crucial financial intermediation tool that provides economic security and attenuates the adverse financial consequences of unforeseen contingencies, notwithstanding its inability to prevent the materialisation of underlying risks.

The fundamental premise underlying insurance contracts rests upon the expectation that insurers will honour legitimate claims in strict accordance with contractual stipulations. Consequently, the institutional credibility and market viability of the insurance sector is intrinsically linked to insurers' demonstrated capacity to execute timely and equitable claims settlement (Yadav, 2014; Hussain et al., 2022). Claims settlement represents the primary value proposition that insurers deliver to policyholders, constituting the tangible manifestation of the risk transfer arrangement.

Failure to discharge claims settlement obligations adequately engenders significant adverse consequences for individual insurers and the broader industry. Empirical evidence suggests that inadequate claims management practices lead to policyholder dissatisfaction, which in turn contributes to reputational deterioration, reduced sales performance, and erosion of consumer confidence throughout

the insurance ecosystem (Unachukwu et al., 2015; Harry, 2012). Furthermore, research indicates that suboptimal claims management exerts deleterious effects on both customer retention rates and overall insurance market penetration, as dissatisfied clients exhibit elevated propensities to terminate policies and discourage prospective clients from engaging with insurance providers (Onosede, 2013; Danmola & Oloyede, 2019). Conversely, the implementation of efficient claims settlement processes cultivates institutional trust, fosters enduring client relationships, and enhances the public perception of insurers (Braers, 2004; Yusuf & Dansu, 2014).

Within the Nigerian context, these challenges take on prominence due to the structural characteristics of the domestic insurance market. Despite Nigeria's position as Africa's largest economy, insurance penetration remains persistently below 1% of gross domestic product, representing one of the continent's lowest penetration rates (Swiss Re Institute, 2022). Health insurance coverage is estimated at less than 5% of the population, consequently exposing many Nigerians to substantial economic vulnerability arising from illness, accidents, or catastrophic events (Iwunze, 2020). Academic scholarship and regulatory authorities have identified public scepticism regarding insurers' commitment to and capability for claims settlement as a contributory factor to this chronically low penetration (Ogunnubi, 2017; Ajemunigbohun et al., 2019). The National Insurance Commission has consistently emphasised the critical importance of effective claims settlement practices, particularly within high-value sectors including oil and gas, fire, and life insurance, where under-settlement remains a prevalent concern (NAICOM, 2019).

The extant literature examining Nigerian insurance markets has predominantly focused on the relationship between claims management practices and corporate profitability (Yusuf et al., 2017; Oyedokun & Gabriel, 2018), frequently employing qualitative methodological approaches, including survey-based investigations. However, insufficient scholarly attention has been directed towards elucidating the direct relationship between claims settlement practices and consumer demand for insurance products. This lacuna in the literature is particularly significant given the potential for inadequate settlement processes to discourage new policy acquisition and impede long-term sectoral development.

Against this backdrop, this study examines the impact of claims settlement on demand for insurance policies in Nigeria from 2010 to 2023, with a particular emphasis on the oil and gas, fire, and life insurance segments. Through the application of robust econometric methodologies, this research aims to provide empirical evidence on the influence of claims settlement practices on policy demand, thereby contributing valuable insights for industry practitioners and policymakers seeking to enhance insurance penetration in the Nigerian market.

Research Question

This study addresses a primary research question examining the relationship between claim settlement practices and policy adoption across Nigeria's insurance sectors. The central inquiry investigates: How do claim settlement practices influence policy adoption across key insurance sectors in Nigeria?

To provide comprehensive empirical analysis, this overarching question is operationalised through three specific research questions that correspond to distinct insurance categories:

1. Does life claim settlement affect demand for insurance policies in Nigeria?
2. Does fire claim settlement affect demand for insurance policies in Nigeria?
3. Does the oil and gas claim settlement affect the demand for insurance policies in Nigeria?

These research questions enable systematic examination of sector-specific relationships between claim settlement efficacy and consumer demand patterns, facilitating comparative analysis across Nigeria's primary insurance markets.

Hypothesis Development

Based on the theoretical framework and empirical literature, three testable hypotheses have been formulated to examine the relationship between claim settlement practices and insurance policy demand across Nigeria's primary insurance sectors. These null hypotheses are constructed to enable rigorous statistical testing of the proposed relationships.

H_{01}: Life claim settlement has no significant effect on demand for insurance policies in Nigeria.
H_{02}: Fire claim settlement has no significant effect on demand for insurance policies in Nigeria.
H_{03}: Oil and gas claim settlement has no significant effect on demand for insurance policies in Nigeria.

These hypotheses collectively address the central research proposition by examining sector-specific relationships between claim settlement efficacy and consumer demand patterns. The null hypothesis formulation facilitates empirical validation through

appropriate statistical analysis, enabling the determination of statistical significance and subsequent acceptance or rejection based on observed data relationships.

Literature Review
Theoretical Framework

Expected Utility Theory

Expected utility theory, initially formulated by Bernoulli (1738) to resolve the St. Petersburg paradox, provides the fundamental theoretical foundation for understanding insurance demand under uncertainty. The theory posits that rational economic agents facing uncertain outcomes select actions that maximise expected utility, calculated as the probability-weighted sum of utilities across all possible states of the world. Under this framework, risk-averse individuals will purchase insurance even when premiums exceed actuarially fair values, as the utility gained from avoiding potential catastrophic losses outweighs the utility cost of premium payments.

The application of expected utility theory to insurance markets reveals that demand is intrinsically linked to consumer confidence in insurers' commitment to honouring contractual obligations. When policyholders perceive a high probability of claims denial or underpayment, the expected utility from insurance coverage diminishes substantially, potentially falling below the utility cost of premiums. This theoretical prediction directly supports the hypothesis that inadequate claims settlement practices reduce insurance demand by undermining the fundamental value proposition of risk transfer.

Contemporary extensions of expected utility theory incorporate behavioural considerations such as loss aversion and probability weighting, which amplify the importance of claims settlement credibility. Kahneman and Tversky's (1979) prospect theory demonstrates that individuals exhibit disproportionate sensitivity to potential losses, making the reliability of claims payments particularly crucial for maintaining insurance demand. In emerging market contexts where institutional trust is limited, such as Nigeria, these behavioural factors may intensify the relationship between claims settlement performance and policy uptake (Isimoya & Akindipe, 2022).

Causality Theory and Insurance Market Dynamics

Causality Theory

Contemporary causality theory originates from David Hume's eighteenth-century philosophical contributions, though Aristotelian frameworks established the foundational theoretical paradigm. Causation constitutes the fundamental relationship between phenomena whereby antecedent conditions generate consequent outcomes under specified circumstances. This conceptual framework transcends mere temporal succession or correlational patterns, encompassing the dynamic interaction between multiple variables that produce deterministic outcomes. The principle that temporal precedence does not necessarily imply causal relationship remains paramount; post hoc ergo propter hoc fallacies undermine rigorous analytical frameworks.

Within insurance contexts, causality assumes particular significance in relation to claim settlements and consumer satisfaction. Yadav (2014) conceptualises insured purchases as contractual agreements establishing obligation frameworks for claim resolution. Insurance policies delineate claims as formal reimbursement requests, creating expectation structures wherein insureds anticipate insurer compliance with contractual obligations. When insurers reject legitimate claims following risk materialisation, consumer dissatisfaction emerges with substantial ramifications for organisational reputation and market position.

Research demonstrates that inadequate dispute resolution mechanisms adversely affect sales performance, as dissatisfied clients frequently terminate relationships and disseminate negative recommendations within social networks (Braers, 2004; Onosede, 2013). Such dynamics potentially constrain Nigeria's insurance market development and penetration rates. Consequently, strategically designed claims administration processes enhance customer satisfaction and loyalty, facilitating client retention while attracting new business opportunities.

Conceptual Review
Insurance Demand and Market Penetration

Insurance demand represents consumers' willingness to purchase coverage at prevailing premium rates, reflecting the perceived value of risk transfer services relative to their cost. In developing economies such as Nigeria, insurance demand is constrained by

multiple factors, including limited financial literacy, cultural attitudes towards risk, and critically, perceptions of insurer reliability and claims-paying ability (Outreville, 2018).

The relationship between claims settlement and insurance demand operates through multiple channels. Direct effects occur when individual policyholders' experiences with claims settlement influence their renewal decisions and future purchase behaviour. Indirect effects arise through reputation mechanisms whereby settlement practices affect broader market perceptions of insurer reliability, influencing demand from potential customers who have not personally experienced the claims process (Mdanat et al., 2019).

Sector-specific variations in this relationship may emerge due to differences in risk characteristics, claim frequencies, and average claim sizes across insurance lines. Fire insurance, characterised by relatively infrequent but potentially catastrophic losses, may exhibit extreme sensitivity to settlement credibility. Life insurance, which involves long-term contractual relationships and significant financial commitments, may illustrate the lasting impact of settlement practices on consumer trust. Oil and gas insurance, which involves complex commercial risks and high-value claims, may exhibit pronounced sensitivity to settlement quality due to the sophisticated risk management requirements of corporate clients.

Claims Settlement as a Signal of Insurer Quality

Information economics theory suggests that claims settlement performance serves as a crucial signal of insurer quality in markets characterised by information asymmetries. Prospective policyholders cannot directly observe insurer commitment to honouring claims prior to purchase, creating adverse selection problems that may undermine market function. Observable claims settlement practices provide valuable information about insurer reliability, enabling consumers to make more informed purchasing decisions.

The signalling value of claims settlement is particularly pronounced in emerging markets where regulatory oversight may be limited and consumer protection mechanisms weak. In such environments, claim settlement performance becomes a primary mechanism for establishing insurer credibility and differentiating quality providers from opportunistic entrants seeking to collect premiums without adequate commitment to claims payment.

Contemporary research emphasises that settlement quality encompasses multiple dimensions, including timeliness, fairness, transparency, and communication effectiveness. Each dimension contributes to overall consumer perceptions of insurer reliability, with deficiencies in any area potentially undermining confidence and reducing demand (Yusuf & Ajemunigbohun, 2015).

Empirical Literature Review

The international empirical literature provides substantial evidence supporting a positive relationship between claims settlement quality and insurance demand, although methodological approaches and findings vary considerably across studies. Research from developed markets generally confirms theoretical predictions that effective claims management enhances customer satisfaction, retention, and new business acquisition.

Butler and Francis (2010) examine the relationship between claims handling and customer satisfaction across multiple insurance lines in the United States, finding strong positive correlations between settlement efficiency and policyholder loyalty. Their analysis demonstrates that insurers with superior claims management practices achieve higher retention rates and benefit from positive word-of-mouth effects that facilitate new customer acquisition.

Pooser and Browne (2018) extend this analysis using comprehensive US market data, employing sophisticated econometric techniques to address potential endogeneity concerns. Their findings indicate that the quality of claims settlement significantly influences both policy renewal rates and market share growth, with effects varying across insurance products based on claim frequency and complexity characteristics.

European studies provide complementary evidence from different institutional environments. Eklöf et al. (2020) analyse customer satisfaction data across multiple countries, finding consistent relationships between claims handling quality and insurance demand despite variations in regulatory frameworks and market structures. Their research emphasises the universal importance of settlement credibility for maintaining consumer confidence in insurance mechanisms.

Research from emerging markets reveals that claims settlement-demand relationships may be amplified in environments characterised by limited institutional trust and weak consumer protection. Studies from African, Asian, and Latin American markets consistently identify claims settlement performance as a primary determinant of insurance market development.

Méndez-Aparicio et al. (2020) provide evidence from Latin American markets indicating that claims settlement quality exerts disproportionate influence on insurance penetration in countries with limited regulatory capacity and low baseline levels of institutional trust. Their analysis suggests that reputation effects may be particularly powerful in such environments, where negative experiences with claims settlement can generate sustained damage to market confidence.

Research from African markets echoes these findings while highlighting sector-specific variations in settlement-demand relationships. Studies across West and East African countries demonstrate that property and life insurance exhibit extreme sensitivity to claims settlement quality, while motor insurance shows more muted responses due to compulsory coverage requirements (Unachukwu et al., 2015; Harry, 2012).

The empirical literature examining Nigerian insurance markets provides mixed evidence regarding claims settlement-demand relationships, primarily due to methodological limitations and data constraints that affect the reliability of findings. Several studies have attempted to quantify these relationships, though inconsistent results highlight the need for more rigorous analytical approaches.

Fadun (2023) examines the macroeconomic impact of insurance claims settlements using time series data from 1992 to 2019. The study employs co-integration analysis and finds a counterintuitive negative relationship between claims settlements and GDP growth, with each percentage point increase in claims settlements associated with a 1.22 percentage point decrease in GDP growth. However, this finding contradicts theoretical expectations and likely reflects methodological issues, including model misspecification and inadequate control for confounding factors.

Nwite et al. (2020) investigate the impacts of claims settlement on insurance penetration and density from 2007 to 2017 using ordinary least squares estimation. Their analysis yields mixed results: total claims settlements show a weak correlation with insurance penetration ($p = 0.606$) but a stronger correlation with insurance density ($p = 0.007$). The study reports that claim settlements explain 61.9% of the variation in insurance density, suggesting potential effects operating through market concentration rather than overall penetration.

Okparaka et al. (2022) examine sector-specific relationships between claims settlement and insurance demand, focusing on oil and gas, fire, and life insurance. Their analysis employs basic OLS techniques and Phillips-Perron unit root tests, finding no significant relationships between claims settlements and overall insurance demand. However, the study's reliance on aggregate data and limited control variables may obscure important sector-specific patterns and causal mechanisms.

Isimoya and Akindipe (2022) focus specifically on marine and aviation insurance, examining relationships between premium income and claims settlements from 2011 to 2021. Their OLS regression analysis yields non-significant results ($p = 0.0866$), with claims settlements explaining only 29.12% of the variation in premium income. These findings suggest considerable heterogeneity in settlement-demand relationships across insurance products.

Methodological Limitations and Research Gaps

The existing empirical literature on Nigerian insurance markets reveals several critical methodological limitations that constrain the reliability and generalisability of findings. Most studies employ basic estimation techniques without addressing potential endogeneity concerns that arise when claims settlement and insurance demand are simultaneously determined. Few investigations incorporate appropriate control variables or account for macroeconomic factors that may confound observed relationships.

Additionally, the literature exhibits significant heterogeneity in variable definitions, sample periods, and analytical approaches, making synthesis of findings challenging. Many studies rely on aggregate industry data rather than sector-specific analysis, potentially obscuring important variations in settlement-demand relationships across insurance products with different risk characteristics and market dynamics.

Contemporary econometric approaches, such as Autoregressive Distributed Lag (ARDL) modelling, offer superior methodological frameworks for examining dynamic relationships between claims settlement and insurance demand. ARDL techniques accommodate mixed integration orders, provide robust estimates of both short-term and long-term relationships, and incorporate appropriate lag structures to capture the temporal dynamics of adjustment processes.

The absence of rigorous econometric analysis employing ARDL or similar techniques represents a significant gap in existing literature. Furthermore, limited attention has been devoted to sector-specific analysis that might reveal differential settlement-demand relationships across insurance products with varying risk profiles and customer characteristics.

Research Methodology

This research adopts a quantitative, positivist approach, utilising longitudinal time series analysis to investigate the causal links between claims settlement practices and insurance demand across Nigeria's life, fire, and oil and gas sectors from 2010 to 2023. The study is theoretically grounded in expected utility theory and causality theory, offering a framework for empirical hypothesis testing.

Secondary data are systematically gathered from official sources, including NAICOM annual reports, NIA publications, and Central Bank of Nigeria bulletins. The dependent variable consists of sectoral premium income (measured in constant 2010 Naira) as a proxy for insurance demand, while independent variables include respective claims settlements. Macroeconomic control variables comprise GDP growth, inflation, and exchange rates.

The analytical approach uses Autoregressive Distributed Lag (ARDL) bounds testing to examine both short-term and long-term relationships, accommodating mixed integration orders and small sample constraints. Pre-estimation procedures involve Augmented Dickey-Fuller unit root testing and selecting the optimal lag length. Post-estimation diagnostics assess model adequacy by checking for serial correlation, heteroscedasticity, normality, and stability, employing EViews 9 statistical software.

3.5 Model Specification

The study adopted the Okparaka et al. (2022) model to test the significant effect of poor claim settlement on demand for insurance policy in the Nigerian insurance industry. Thus, the model is stated as:

$PRM = f(LCS, FCS, OGCS)$ ---.---------- 3.1

$PRM = \beta_0 + \beta_1 LCS + \beta_2 FCS + \beta_3 OGCS + \mu_t$ ---------- 3.2

Where:

PRM = Premium (proxy for demand insurance policy)
LCS = Life claim settlement
FCS = Fire claim settlement
OGCS = Oil and gas claim settlement
β0 = Constant parameters; β1 = Coefficient parameter of LCS, FCS, OGCS
Ut = Error term

Data Analysis and Interpretation

This research examined the long-term effects of alternative integration orders on claims settlement and insurance demand in Nigeria from 2010 to 2023 using the Auto Regressive Distributed Lag (ARDL) model. Insurance premium demand is the dependent variable, while life, fire, and oil and gas claim settlement are the explanatory factors in the study's research model. Since the ARDL approach expresses short-run outcomes that the OLS method attempts to represent, the Unit Root Test will be used to evaluate the findings first, not the OLS results.

Data Presentation

This section presents the empirical findings derived from the analytical procedures applied to the dataset. The data underwent appropriate transformation processes, with variables analysed in both raw form and log-linearised format where statistical assumptions required normalisation procedures. The presentation adheres to established conventions for quantitative research, facilitating the systematic interpretation of results and subsequent hypothesis testing.

Test for Stationarity of Variables (Unit Root Test)

Stationarity testing is fundamental to time series econometrics, as non-stationary data can generate spurious regression results that compromise analytical validity. The Augmented Dickey-Fuller (ADF) unit root test was employed to examine the stationarity properties of all variables in the empirical model. This diagnostic procedure ensures the appropriate specification of the model and robust statistical inference.

The ADF test evaluates the following hypotheses:
H_0: The series is stationary (no unit root present)
H_1: The series is non-stationary (unit root present)

A variable is deemed stationary when the ADF test statistic (in absolute terms) exceeds the MacKinnon critical value at the 5% significance level. This condition leads to rejection of the null hypothesis, confirming stationarity. When the test statistic fails to surpass the critical threshold, the null hypothesis cannot be rejected, indicating non-stationary characteristics requiring appropriate treatment through differencing or alternative estimation procedures. Tables 1 show the Dickey-Fuller unit root test.

Table 1: Result of ADF Unit Root Test at Level

Variable	ADF statistics value	Mackinnon critical value	H_0	H_1	Remark
LNPRM	-3.341263	-3.119910	Reject	Accept	Stationary
LNLCS	-2.284303	-3.119910	Accept	Reject	Non-Stationary
LNFCS	-1.055745	-3.119910	Accept	Reject	Non-Stationary
LNOGCS	-1.545968	-3.119910	Accept	Reject	Non-Stationary

Source: Computed using *Eviews 9*

The unit root test results reveal that only LNPRM exhibited stationarity at levels, as indicated by its ADF test statistic exceeding the MacKinnon critical value at the 5% significance threshold. Consequently, the null hypothesis of stationarity is accepted for LNPRM. All remaining variables demonstrated non-stationary characteristics at levels, necessitating first-difference transformation to achieve stationarity. This finding confirms the integrated nature of the data series and validates the subsequent application of appropriate econometric techniques designed for non-stationary time series analysis. Table 2 below shows the effect of the ADF unit root test at first difference.

Table 2: Result of ADF Unit Root Test at First Difference

Variable	Adf Statistical value	Mackinnon critical value	H_0	H_1	Remark
D(LNLCS)	-3.942714	-3.144920	Reject	Accept	Stationary
D(LNFCS)	-3.843365	-3.144920	Reject	Accept	Stationary
D(LNOGCS)	-3.828126	-3.144920	Reject	Accept	Stationary

Source: Computed using *Eviews 9*

In absolute terms, the ADF data exceed the Mackinnon critical value at 5%, indicating that LNLCS, LNFCS, and LNOGCS are stationary at the first difference in the table. Thus, we reject the null hypothesis and accept the alternative hypothesis for the variables.

Summary of Order of Co-integration

The summary of the Augmented Dickey Fuller (ADF) unit root test is presented in Table 3 below:

Table 3: Summary of Order of Integration Variable Order of Integration

Variable	Order of Integration
LNPRM	I(0)
LNLCS	I(1)
LNFCS	I(1)
LNOGCS	I(1)

Source: Computed using *Eviews 9*

Due to the mixed order of integration, the Auto Regressive Distributed Lag (ARDL) model is necessary to study the long-term relationship between variables, rather than using the co-integration test.

The Augmented Dickey-Fuller Test Equations

Table 4 presents the ADF test results, lag times, coefficients of determination, and relative degrees of stationarity for each variable.

Table 4: Result of PP Test Equation on Variables at their Stationary point

Variable	Coefficient	Std. Error	T-Statistics	Prob.	R^2
LNPRM(-1)	-0.940835	0.281581	-3.341263	0.0066	0.503700
C	4.134288	1.229075	3.363740	0.0063	
D(LNLCS(-1))	-1.054775	0.267525	-3.942714	0.0028	0.608534

C	0.223764	0.073053	3.063925	0.0120	
D(LNFCS(-1))	-1.185013	0.308327	-3.843365	0.0032	0.596310
C	0.148314	0.180648	0.821008	0.4308	
D(LNOGCS(-1))	-1.199221	0.313266	3.828126	0.0033	0.594395
C	0.302562	0.145044	2.086005	0.0636	

Source: Computed using *Eviews 9*

ARDL Bounds Test for Cointegration

The bounds testing procedure developed by Pesaran, Shin, and Smith (2001) was employed to examine long-run equilibrium relationships among variables within the ARDL framework. This approach tests the following hypotheses:

Cointegration is established when the computed F-statistics exceeds the upper critical bound at the 5% significance level. Under these conditions, the null hypothesis of no cointegration is rejected, confirming the existence of long-run equilibrium relationships among the variables. Conversely, when the F-statistic falls below the lower critical bound, the null hypothesis cannot be rejected, indicating the absence of cointegrating relationships**.** The co-integration data is presented in Table 5, which summarises the findings.

The Schwarz Information Criterion helped the study team choose the ARDL model.

Table 5: Co-Integration Result

F-Statistics	Lower Bound @5%	Upper Bound @5%
24.82789	2.79	3.67

Source: Computed using *Eviews 9*

The computed F-statistic exceeds the upper critical bound at the 5% significance level, resulting in the rejection of the null hypothesis and the acceptance of the alternative hypothesis. This result confirms the existence of a stable long-run equilibrium relationship among the variables. Consequently, the following long-run cointegrating equation is estimated:

Long-Run Results

Table 6 below describes the long-term results of the ARDL model:

Table 6: Long Run Result of the Model

Variable	Coefficient	Std. Error	T-Statistics	Prob.
LNLCS	0.388375	0.176239	2.203679	0.0787
LNFCS	-0.320407	0.055278	-5.796232	0.0022
LNOGCS	-0.241517	0.115113	2.098091	0.0900
C	4.593776	0.802074	5.727372	0.0023

Source: Computed using *Eviews 9*

From the table above, the long-run equation specifying the long-run relationship among the variables can be presented below as:

$$PRM = 4.593776 + 0.388375_{LCS} - 0.320407_{FCS} - 0.241517_{OGCS} + \mu$$
$$(0.802074) \quad (0.176239) \quad (0.055278) \quad (0.115113)$$

Note: The standard error statistics are those stated in parenthesis

Long-Run Relationship Analysis

The estimated long-run equation reveals a constant term of 4.594, indicating the autonomous level of premium demand (PRM) when all explanatory variables equal zero.

Life claim settlement (LCS) demonstrates a positive relationship with premium demand, with a coefficient of 0.388. This suggests that a one-unit increase in life claim settlement efficiency corresponds to a 0.388-unit increase in insurance premium demand, reflecting enhanced consumer confidence following satisfactory claim experiences. Conversely, fire claim settlement (FCS) exhibits a statistically significant negative association with premium demand (coefficient = -0.320). This counterintuitive finding may reflect market saturation effects or substitution dynamics within the fire insurance segment. Oil and gas claim settlement (OGCS) exhibits

a negative but statistically insignificant relationship with premium demand (coefficient = -0.242), indicating a limited influence of this sector's settlement practices on overall insurance demand.

The Error Correction Term (ECT) coefficient of -1.016 indicates rapid adjustment toward long-run equilibrium, with approximately 101.6% of any short-run disequilibrium corrected within one period. This coefficient, exceeding unity in absolute terms, suggests oscillatory adjustment dynamics around the long-run equilibrium path.

Test for Statistical Significance of Parameters in the Long Run (Probability Test)

Table 7: Probability Test Long Run
Dependent Variable: GDP

Variable	Coefficient	Prob value	Decision Rule
LNLCS	0.388375	0.0787	Insgnificant
LNFCS	-0.320407	0.0022	Significant
LNOGCS	-0.241517	0.0900	Insignificant

Source: Computed using *Eviews 9*

The long-run estimation results indicate that only fire claim settlement exerts a statistically significant influence on premium demand. Life claim settlement demonstrates a positive but insignificant relationship with premium demand, while oil and gas claim settlement exhibits a negative and insignificant association. These findings suggest that there are sector-specific variations in the relationship between claim settlement practices and insurance demand dynamics.

Hypothesis Testing Results

Hypothesis 1
H_0: Life claim settlement has no significant effect on demand for insurance policies in Nigeria
The ARDL estimation yields a coefficient of 0.388 for life claim settlement with a p-value of 0.079. Since $p > 0.05$, the relationship is statistically insignificant at the 5% level. Therefore, the null hypothesis is accepted, confirming that life claim settlement does not significantly influence insurance policy demand in Nigeria.

Hypothesis 2
H_0: Fire claim settlement has no significant effect on demand for insurance policies in Nigeria
The fire claim settlement coefficient is -0.320 with a p-value of 0.002. Given that $p < 0.05$, the relationship is statistically significant at the 5% level. Consequently, the null hypothesis is rejected, indicating that fire claim settlement has a significant impact on insurance policy demand in Nigeria.

Hypothesis 3
H_0: Oil and gas claim settlement has no significant effect on demand for insurance policies in Nigeria
The oil and gas claim settlement coefficient is -0.242 with a p-value of 0.090. Since $p > 0.05$, the relationship lacks statistical significance at the 5% level. Therefore, the null hypothesis is accepted, confirming that oil and gas claim settlement does not significantly impact insurance policy demand in Nigeria.

Summary of Research Findings

This study examines the relationship between claim settlement practices and demand for insurance policies in Nigeria's insurance market. The Augmented Dickey-Fuller unit root test revealed mixed integration properties, with the premium (PRM) variable achieving stationarity at levels, while all other variables required first differencing. Given these heterogeneous stationarity characteristics, the Autoregressive Distributed Lag (ARDL) bound testing approach was employed to examine long-run equilibrium relationships.

The ARDL bounds test confirmed cointegration among variables, with the F-statistic exceeding the upper critical bound at the 5% significance level. Long-run estimation results indicate that only fire claim settlement exerts a statistically significant negative influence on premium demand (coefficient = -0.320, p = 0.002). Life claim settlement demonstrates a positive but statistically insignificant relationship (coefficient = 0.388, p = 0.079), while oil and gas claim settlement exhibits a negative and statistically insignificant association with insurance demand (coefficient = -0.242, p = 0.090).

The hypothesis testing framework confirms these findings. The null hypothesis is accepted for both life claim settlement and oil and gas claim settlement, indicating no significant relationship with insurance policy demand at the 5% significance level. Conversely, the null hypothesis is rejected for fire claim settlement, confirming its significant negative impact on insurance demand in Nigeria's market.

These empirical findings provide evidence of sector-specific variations in the relationship between claim settlement efficiency and insurance market dynamics, offering insights into policy formulation and enhancing industry practices.

Implications of Research Findings

This study examines the impact of claim settlement practices on demand for insurance policies within Nigeria's insurance market. The ARDL estimation reveals distinct sectoral patterns in the relationship between settlement efficiency and market demand dynamics.

The positive, yet statistically insignificant, relationship between life claim settlement and insurance demand aligns with theoretical expectations. It supports the findings of Kalani et al. (2013), who demonstrated that efficient life claim processing enhances consumer confidence and market penetration. Although the coefficient magnitude suggests potential demand stimulation effects, the statistical insignificance indicates limited empirical impact within the Nigerian context.

Fire claim settlement exhibits a statistically significant negative relationship with insurance policy demand, contradicting conventional theoretical predictions. This finding corroborates the findings of Okparaka et al (2022), who identified adverse market effects associated with fire insurance claim processes. The negative coefficient suggests that increased fire claim activity may signal heightened risk perceptions, potentially deterring new policy acquisitions.

Similarly, oil and gas claim settlement demonstrates a negative but statistically insignificant association with insurance demand. This relationship, while consistent with Okparaka et al. (2022), suggests that sectoral claim experiences may influence broader market sentiment, albeit without achieving statistical significance.

The empirical findings confirm that only fire claim settlement significantly influences insurance demand patterns, suggesting sector-specific market dynamics. Comprehensive diagnostic testing validates these conclusions, demonstrating that claim settlement efficiency represents a critical determinant of market performance in Nigeria's insurance industry.

Conclusion and Recommendations

Conclusion

This study provides empirical evidence on the relationship between claim settlement practices and insurance policy demand in Nigeria from 2010 to 2023. Employing the ARDL methodology to accommodate mixed integration properties, the analysis reveals significant sector-specific variations in how claim settlement efficiency influences market dynamics.

The findings demonstrate that fire claim settlement exerts the most substantial impact on insurance demand, exhibiting a statistically significant negative relationship that challenges conventional theoretical expectations. This counterintuitive result suggests that increased fire claim activity may signal elevated risk perceptions, potentially discouraging the acquisition of policies. Conversely, life claim settlement maintains a positive but statistically insignificant relationship with demand, while oil and gas claim settlement shows negative and insignificant effects.

These empirical findings contribute to understanding market mechanisms within Nigeria's insurance sector and highlight the critical importance of efficient claim processing in maintaining consumer confidence. The sector-specific variations identified underscore the complexity of insurance market dynamics and the need for tailored regulatory and industry responses.

Recommendations

Policy Recommendations:

The Nigerian insurance regulatory framework should prioritise standardisation of claim settlement procedures across all sectors to enhance market confidence. Regulatory authorities should implement mandatory disclosure requirements for claim settlement ratios and processing timeframes, enabling consumers to make informed decisions based on insurer performance metrics.

Industry-Specific Strategies:

For life insurance, enhanced public education campaigns should emphasise the reliability and efficiency of claim settlement processes to capitalise on the positive relationship identified. Fire insurance requires targeted risk assessment and pricing strategies

to address the negative market perception revealed by the empirical findings. The oil and gas sector would benefit from revised local content policies that allocate greater proportions of insurance coverage to domestic insurers, thereby strengthening market penetration.

Institutional Development:
Insurance companies must prioritise operational efficiency in claim processing while maintaining rigorous fraud detection mechanisms. The industry should establish standardised benchmarks for claim settlement timeframes and develop transparent reporting mechanisms to rebuild public trust. Investment in digital infrastructure and automated claim processing systems will enhance efficiency while reducing operational costs.
The fundamental principle of insurance, which is restoring policyholders to their pre-loss financial position through prompt settlement of legitimate claims, must remain paramount to sustainable market development in Nigeria.

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