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Inflation and Insurance Companies Performance in Nigeria

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Abstract
This study empirically examines the impact of inflation and interest rates on the performance of insurance companies in Nigeria, focusing on the influence of the Consumer Price Index (CPI) and interest rates. The specific objectives are to (1) assess the effect of CPI on insurance companies' performance and (2) evaluate the impact of interest rates on their financial outcomes. The study tests two null hypotheses: (H_{01}) CPI has no significant effect on insurance company performance, and (H_{02}) interest rates have no significant effect on insurance company performance.
A quasi-experimental research design is adopted, utilizing secondary data from the National Bureau of Statistics (NBS), the Central Bank of Nigeria (CBN) Statistical Bulletin, and the CBN Annual Report (2023). The findings reveal that inflation has a significant positive effect on insurance gross premiums, suggesting that insurance firms can adjust premium rates to benefit from moderate inflation. Meanwhile, CPI exhibits a marginally significant positive impact, indicating a weaker influence compared to inflation. The study concludes that inflationary trends critically affect insurance performance, necessitating adaptive pricing strategies and proactive regulatory measures. Key recommendations include (1) adopting dynamic pricing models by Nigerian insurers to align premiums with inflation and (2) strengthening regulatory frameworks by the National Insurance Commission (NAICOM) to enhance financial stability and policyholder protection. These measures aim to mitigate inflation-induced risks and sustain insurance sector growth.

Keywords: Inflation, Insurance Performance, Consumer Price Index (CPI), Interest Rates.

Introduction

In the basic study of insurance risk, risk is classified into three categories, one of which is fundamental risk. Fundamental hazards are those that affect whole societies, institutions, or collectives. An illustrative instance of basic risk, as highlighted in educational resources, is inflation. Inflation impacts all persons and entities within a society. A vivid illustration of this is the recent abolition of the petrol subsidy by President Tinubu's administration in Nigeria, resulting in a significant rise in prices across several industries. The insurance business, like to other industries, has been adversely affected by inflation, as it depends on gasoline and other vital commodities. Moreover, insurers are obligated to absorb heightened expenses associated with risk evaluation, claims management, and total claims disbursements. Industry employees may also seek compensation increases, reflecting like developments in other economic sectors.

Insurance businesses function as the suppliers and distributors of insurance goods in Nigeria. According to the Nigerian Insurance Act of 2003, the insurance market is primarily divided into two categories: life insurance and non-life (general) insurance. Nigerian legislation allows insurance companies to operate in both sectors. These companies provide coverage in both sectors, with life insurance encompassing individual and group life policies, pensions and health risks, while non-life insurance includes fire, general accidents, motor vehicles, marine and aviation, oil and gas, engineering, bond credit, guarantees, suretyship and various other insurance policies.

Additionally, reinsurance businesses in Nigeria were created to give coverage for insurance firms, providing technological stability and enhanced capacity to insurers without directly delivering insurance to customers (Hamadu & Majekwu, 2010). The Nigerian insurance industry include both foreign and domestic firms. The formation of insurance and reinsurance firms need authorisation from the Corporate Affairs Commission in accordance with the stipulations of the firms and Allied Matters Act No. 1 of 1990, as revised in 2004. Moreover, insurance firms are required to be registered with the National Insurance Commission (NAICOM).

The success of insurance businesses globally is a crucial measure of a nation's economic health, significantly impacting the Gross Domestic Product (GDP), especially within the non-banking financial sector (USAID, 2012). As economies get more interconnected, corporations encounter heightened demand to reveal their business performance. Global regulatory authorities are striving to harmonise insurance legislation, enhance policy standardisation, and facilitate the globalisation of the insurance value chain. Thus, an empirical investigation into the determinants affecting the performance of insurance businesses in Nigeria is pertinent for regulators and financial institutions aiming to invest in the sector to improve its efficiency.

Inflation, a crucial subject in business transaction discourse, also profoundly affects the insurance sector. Inflation denotes an increase in price levels or a decrease in monetary worth. The naira currency rate shifted from $1 = N245 in 2015 to $1 = N820 in 2022, with ongoing fluctuations. The monetary worth of a currency, like the naira, is determined by evaluating the cost of a representative basket of commodities and is inversely correlated with price levels.

Oner (2010) asserts that inflation has resulted in extended durations of economic instability, resulting in central bankers being designated as "inflation hawks." Inflation has significantly influenced political campaigns, shown by President Gerald Ford’s 1974 campaign in the United States, during which he designated inflation as "Public Enemy No. 1." Inflation often denotes the general escalation of prices or an augmentation in the cost of life within a nation. Nevertheless, it may also be quantified more precisely, as exemplified by increasing food prices or service expenses such as haircuts (Oner, 2010). Inflation denotes the percentage rise in the cost of a certain basket of goods and services, usually evaluated annually via the consumer price index.

Problem Statement

The principal concern that initiated this study is the continual volatility of general prices, sustained inflationary pressures, and increasing unemployment within the economy, notwithstanding the execution of many monetary policy interventions over the years. Although monetary aggregates are occasionally advocated as a guiding instrument for monetary policy due to their comparatively steady correlation with the economy, their regulation by the Central Bank is limited to controlling reserve balances and federal funds rates.

Inflation is a considerable obstacle to the insurance sector. In contrast to other industries that may easily modify their prices, insurance businesses encounter limitations imposed by industry laws and market expectations governing premium rates. Moreover, insurance clients frequently oppose any augmentation in insurance premiums. Inflation adversely affects an insurance company's total revenue while concurrently elevating the expense of claims when losses arise.

To resolve these issues, it is imperative to do an empirical study to ascertain the primary factors influencing the performance of insurance businesses in Nigeria. This study is necessitated by many challenges: first, prior years have exhibited a deficiency of adequate and trustworthy data to assess the elements affecting the performance of insurance companies in Nigeria. Secondly, to our knowledge, there is a paucity of studies evaluating the influence of inflation on the performance of insurance companies in the nation. Furthermore, the few research undertaken in Nigeria have significant deficiencies. Most analyses have concentrated on certain states or geographical regions instead of assessing the sector on a national level, resulting in deficiencies in comprehending insurance company performance nationwide. Moreover, a significant portion of the study has focused on life insurance, neglecting to comprehensively address other sectors of the Nigerian insurance business, including general insurance and reinsurance services.

In light of these research gaps, it is imperative to investigate the determinants affecting the performance of insurance businesses in Nigeria. Although several studies have investigated elements like insurance patronage, public opinion of insurance, and the efficiency of insurance businesses, there is a deficiency of thorough research that comprehensively evaluates both internal and external variables influencing insurance company performance. This study seeks to evaluate the correlation between inflation and the performance of insurance businesses in Nigeria, therefore enhancing current literature and addressing a vacuum in academic research.

Study Objectives

The general objective of this study is to empirically investigate the inflation and insurance companies performance in Nigeria. However, the specific objectives are to:

1. Determine impact of consumer price index on insurance companies performance in Nigeria.
2. Ascertain the effect of interest rate on insurance companies performance in Nigeria.

Research Hypotheses

The study is guided by the following hypothesis stated in their null forms:

H01: Consumer price index has no significant effect on insurance companies performance in Nigeria

H02: Interest rate has no significant effect on insurance companies performance in Nigeria.

Conceptual Review

Insurance Companies and the Nigerian Economy

Numerous studies have emphasised the ways in which insurance might beneficially impact economic growth. This encompasses the facilitation of domestic savings, enhancement of risk management, reduction of losses, optimisation of capital allocation, and promotion of financial stability (Black & Skipper, 2000). Researchers have investigated many avenues via which insurance affects economic growth, resulting in the development of three main theoretical frameworks on their relationship. The initial perspective posits that insurance fosters economic progress, whereas the subsequent view contends that economic growth propels the development of the insurance industry (Patrick, 1966). The third school of thinking asserts a reciprocal link between insurance development and economic success (Haiss & Sumegi, 2008).

Empirical research on the correlation between insurance and economic development has produced inconclusive results. Akinlo (2013) investigated the causal link between insurance and economic growth in Nigeria from 1986 to 2010 utilising the Vector Error Correction Model (VECM). The co-integration test indicated that GDP, insurance premiums, inflation, and interest rates were co-integrated with GDP as the endogenous variable. The Granger causality test revealed that, in the near term, no causal relationship existed between economic growth and insurance premiums. In the long term, insurance premiums, inflation, and interest rates were identified as Granger-causing GDP, indicating a unidirectional causation from these factors to economic growth. This indicates that the insurance sector aids Nigeria's economic development by supplying vital long-term investment capital and mitigating financial risks.

Richard and Victor (2013) examined the correlation between insurance practices and economic growth in Nigeria with a co-integration test and an error correction model. Their research evaluated the influence of insurance activities on Nigeria's economic development, utilising insurance premium revenue, total insurance investments, and insurance sector profits as primary indicators. The study included unit root tests, the Johansen co-integration test, and an error correction model to analyse both short-term and long-term impacts. The results indicated that insurance premium capital and total insurance investments significantly enhance economic growth. The study established a causal association between the advancement of the insurance industry and economic growth in Nigeria.

The insurance industry in Nigeria has significantly contributed to the nation's economic advancement by mitigating risks for consumers and enterprises. The issue of insurance policies enables the mobilisation and transmission of cash to sectors requiring financial support for real-sector investments. Oke (2012) and Shittu (2012) contend that insurance businesses facilitate economic growth by providing financial security to policyholders and impacting capital productivity, technical progress, and savings rates.

Philip (2011) undertook a research to evaluate the operations of the insurance industry in Nigeria and their influence on economic growth, spanning the years 1970 to 2008. The research employed insurance density (quantified by premium per capita) as a metric for insurance market activity and real GDP as an indication of economic growth. It also included inflation and savings rates as supplementary factors influencing economic development. The study employed Johansen's co-integration and vector error correction methods, revealing that all variables were stable at the initial difference, therefore affirming a long-term link among them. Nevertheless, the principal conclusion of the study indicated that, during the study period, the insurance industry did not exert a substantial beneficial impact on Nigeria's economic growth. The findings underscored minimal activity in the insurance industry and a deficiency in the mass adoption of insurance among Nigerians, despite its potential economic advantages.

Olalekan and Taiwo (2013) investigated the short-term and long-term correlations between the expansion of the insurance sector and economic growth in Nigeria from 1986 to 2010. Utilising the Error Correction Model (ECM), they discovered that insurance development was co-integrated with economic expansion, indicating a long-term link. Their findings demonstrated that physical capital and interest rates exerted a substantial beneficial influence on economic growth, both contemporaneously and with a lag, whereas inflation and physical capital negatively affected economic growth in the long run. The data indicate that the insurance sector significantly contributes to economic growth in Nigeria.

The insurance sector remains crucial in both the private and public domains of Nigeria's economy. It facilitates risk management, creates job opportunities, enhances tax income, and delivers diverse financial investment services. Moreover, the sector promotes innovation by assuming new risks, therefore allowing enterprises to engage in productive endeavours with the security of insurance coverage. Insurance services enable risk transfer, augment productivity, and encourage investment.

Participants in the insurance industry, including policyholders, consistently remit premiums, which insurers aggregate to indemnify against losses. A segment of these money is frequently allocated to diverse enterprises or financial products. For example, insurance firms may acquire shares in blue-chip corporations, yielding yearly dividends. This investment role fosters entrepreneurship by offering security for company owners to expand, diversify, and innovate, so enhancing the nation’s industrial, commercial, and economic development.

Recent studies have increasingly concentrated on measuring the insurance industry's contributions to economic expansion and poverty alleviation. Nonetheless, there is no consensus about the precise nature of this link. Numerous research, such as those conducted by Arena (2008), Haiss and Sumegi (2008), Mojekwu, Agwuegbo, & Olowokudejo (2011), and Pen-Fen, Chin-Chiang, & Chin-Feg (2011), have demonstrated that insurance has a favourable impact on economic growth. In contrast, studies conducted by Webb, Grace, and Skipper (2005) revealed no substantial favourable effect. Certain research, like those by Boon (2005), Arena (2008), and Webb, Grace, & Skipper (2002), established a unidirectional causation from insurance development to economic growth, whereas Ching, Kogid, & Furuoka (2010) presented contrary findings. Kugler and Ofoghi (2005) demonstrated a bidirectional association, although other research indicated a neutral relationship between insurance and economic development.

The studied research indicates that insurance is crucial to Nigeria's economic growth and development. The sector is a crucial element of the financial intermediation system, supplying a reliable source of long-term finance for infrastructure initiatives. Insurance bolsters companies' capacity to function safely without necessitating the allocation of substantial resources to contingency reserves.

Moreover, the provision of insurance facilitates the allocation of capital across many economic sectors, hence fostering increased economic activity and growth. The significance of insurance in alleviating unforeseen financial disruptions and promoting economic stability is paramount. The insurance business substantially contributes to national economic growth in both developed and emerging nations. The significance of insurance is rising as societies encounter heightened dangers, due to its robust connections with sectors like industry, transportation, agriculture, mining, petroleum, and trade—both nationally and globally.

Inflation Rate

Inflation has emerged as a pervasive challenge in most economies, including Nigeria, impacting all industries, notably the insurance business. Inflation adversely affects both life and non-life insurance, as demonstrated by Prodanov et al. (2022), Omoke (2012), and Epetimehin (2011). Prodanov et al. (2022) attribute this mostly to obstacles in forecasting future financial results, issues in precisely evaluating technical reserves, and the diminishing value of financial assets within insurance portfolios. Escalating inflation modifies the framework of the insurance industry, resulting in a heightened dependence on mandatory insurance.

Hakansson (1969) proposed a multi-period model to mitigate the impact of inflation on the insurance business through rational purchasing decisions. In contrast to previous one-period and two-period models that excluded inflation, Hakansson's approach integrates inflation without explicitly incorporating it into the study (Richard, 1975; Yaari, 1965). Furthermore, Babbel investigated the effects of inflation on the selling of indexed life insurance plans, investigating strategies to alleviate the depreciation of policy values due to inflation.

Ibrahim (2019) characterises inflation as the sustained increase in the cost of goods and services due to currency depreciation. An explicit illustration of this phenomena is seen in Nigeria's present economic condition. Ibrahim (2019) observes that although inflation is typically perceived as detrimental, it can occasionally advantage businesses. High inflation becomes troublesome when unanticipated price surges exceed income growth, diminishing buying power and resulting in economic stagnation or deceleration. The insurance sector is susceptible to these difficulties, as inflation can jeopardise the financial stability of both insurers and policyholders.

Performance of Insurance Companies in Nigeria

The insurance sector has several issues, many of which are not exclusive to Nigeria. Deloitte (2023) asserts that insurers possess the capacity to enhance their societal contributions, considering their function as a financial safety net safeguarding against diverse worldwide threats. Insurers may enhance their involvement in risk prevention, loss mitigation, and the closure of protection gaps in both life and non-life insurance markets by broadening their focus beyond simple risk compensation. This is especially crucial given the increasing prevalence of financially unsustainable risks. Insurance companies exist to protect businesses by offering coverage against the effects of pure risks on their operations.

An insurance firm must adhere to the legal and regulatory framework of its operating nation to perform effectively. Notwithstanding its importance, insurance does not include all risk exposures and possible losses. Ariss and Iyahen (2022) assert that protection gaps are present in all economies, including emerging, developing, and developed ones. Nonetheless, these disparities are often more pronounced in emerging and developing countries, where uninsured risks can result in more severe and extended economic repercussions due to the lack of personal or governmental means to mitigate such losses. The consequences of these protection loopholes are apparent daily in several regions worldwide.

Noordhoek, Marcous, and Schanz (2022) emphasise the significance of regulatory frameworks in the insurance sector, asserting that politicians should acknowledge insurance as a crucial component of economic and social stability. To cultivate political and institutional backing, sufficient focus and resources must be allocated to insurance regulation, oversight, and financial literacy. Fortifying these sectors can augment the industry's capacity to tackle rising threats and broaden its contribution to economic resilience.

Inflation and Insurance

Inflation presents a substantial risk to the advantages obtained from insurance. From the standpoint of life assurance, Yamoah (2023) emphasises that key financial institutions, such as insurance firms, have suffered negative repercussions. She highlights that the influence of inflation on life insurance contracts is especially significant because of their long-term characteristics and fixed nominal currency worth. Life insurance payouts, being denominated in fixed monetary amounts, do not inherently account for the depreciation of value due to inflation (Yamoah, 2029). Prolonged durations can lead to significant cumulative depreciation, jeopardising the financial stability intended by life insurance. Therefore, whereas life insurance policies aim to safeguard against risks like premature death or longevity, ongoing inflation and escalating living expenses can considerably undermine their efficacy (Yamoah, 2023).

Ehiogu (2022) similarly observes that inflation adversely affects the non-life insurance business. Inflation not only reduces the real value of insurance company assets but also undermines their solvency margins, impairing their ability to meet financial commitments to policyholders. The deterioration of financial stability increasingly hinders insurers' capacity to fulfil claims and sustain operational integrity. Inflation significantly negatively impacts the insurance business overall.

Theoretical Perspective

Optimum Currency Area (OCA) Theory

The theoretical basis for selecting exchange rate regimes is grounded in the Optimal Currency Area (OCA) theory, initially formulated by Canadian economist Robert Mundell in 1961, which builds upon prior contributions by Abba Lerner and was further elaborated by McKinnon in 1963. This hypothesis relies on critical characteristics like the symmetry of economic shocks, the level of regional openness, and the efficacy of labour market mobility.

The OCA hypothesis asserts that particular areas, regardless of national boundaries, may gain advantages from using a shared currency. It implies that an ideal geopolitical zone exists where a common currency would be most efficacious, however this area may not correspond with recognised country borders. An ideal currency area may comprise numerous nations, segments of many countries, or distinct areas within a singular country.

The idea posits that adopting currencies based on geographic and geopolitical areas, rather than individual nations, can enhance economic efficiency. The Optimal Currency Area (OCA) hypothesis posits that the adoption of a shared currency within a designated geographic zone may markedly improve commerce and economic integration in that locale. For this arrangement to be advantageous, the trade benefits must surpass the costs incurred from relinquishing national monetary sovereignty, which constrains each nation's capacity to modify its economic policies via independent currency management. There are four criteria for an optimum currency area:

1. An expansive, open, and linked labour market that facilitates the unrestricted movement of workers across the region, hence assisting in the regulation of unemployment in certain locales.
2. The adaptability of pricing and wages, along with the mobility of capital, to rectify regional trade disparities.
3. A centralised budget or authority to reallocate wealth to regions impacted by labour and capital mobility.
4. The participating areas exhibit analogous business cycles and synchronised economic data timeliness to mitigate shocks in each one location.

An exemplary illustration of a cohesive currency system grounded in the OCA theory is the Euro, the trade currency of the European Union. Nonetheless, the OCA hypothesis encountered criticism in 2010 when sovereign debt problems in several heavily indebted European states jeopardised the stability of the European Union.

Empirical Review

Prodanova et al. (2022) performed a research entitled Empirical Analysis of the Impact of Inflation on Non-Life Insurance Penetration in Bulgaria for the period 2007–2021. Their literature study findings suggest that inflation affects insurance penetration, however the degree of this influence differs by nation and is contingent upon factors such as the structure of the insurance market, economic growth, and the financial literacy of the populace. The research examined the fluctuations in the consumer price index (CPI) overall and by category, adhering to the Classification of Individual Consumption by Purpose (COICOP/CPI). Significant attention was directed into examining pricing trends in motor insurance and property and liability insurance via family consumption patterns. This technique facilitated the identification of significant household expenditures and their responsiveness to price variations. The researchers utilised the least squares approach to analyse trends in the studied time series, evaluating both linear and non-linear functions. Trend analysis in the dynamic series was performed utilising the first-order autocorrelation coefficient at a 5% significance level, in conjunction with the Box-Pierce (BP) and Box-Ljung (BL) tests.

The research employed the conventional insurance penetration metric for non-life insurance, in conjunction with specific indicators obtained from gross written premiums across principal insurance categories, as dependent variables. Regression and correlation studies using time series data from 2007 to 2021 were done to evaluate the effect of inflation on Bulgaria's non-life insurance penetration. The Durbin-Watson statistic (DW) was employed to identify correlation in residuals surrounding the regression line. The research further analysed the attributes of Bulgaria's non-life insurance sector utilising essential insurance-specific metrics. Compulsory Motor Third-Party Liability Insurance predominated the Bulgarian market, a tendency seen in family expenditure patterns. Moreover, auto insurance and property and casualty insurance were strongly affected by inflation, exhibiting price increase rates that exceeded those of other household expenditure categories.

Muhaizam (2018) examined the determinants of financial success in the context of general takaful and insurance companies in Malaysia, utilising panel data from 2004 to 2007, with investment yield as the metric for performance evaluation. This measure was associated with many economic and firm-specific factors, including profit and interest rate levels, equity returns, business size, reinsurance dependency, solvency margin, liquidity, and contribution or premium growth, selected based on theoretical and empirical foundations. The results indicated that for general Islamic insurance firms in Malaysia, business size, reliance on reinsurance, and solvency margin were statistically significant factors influencing investment success. Conversely, for traditional insurance companies, all variables except equity returns were determined to be statistically significant in affecting investment success.

Sidra and Attiya (2016) examined the determinants of a firm's financial performance in the context of the Pakistani stock market, evaluating the correlation between firm performance and variables including economic indicators, corporate governance, ownership structure, capital structure, and risk management. Their research examined 60 companies listed on the Karachi Stock Exchange from 2007 to 2011, utilising a fixed-effects model to assess business profitability in relation to these factors. The findings consistently indicated a correlation between financial performance and economic indicators, corporate governance, ownership structure, and capital structure, while the intensity of these associations differed among various performance measurements. The research further performed assessments for heterogeneity and multicollinearity, therefore strengthening the validity of its conclusions. This study is one of the few that investigates the drivers of company success in a developing market such as Pakistan.

Eric, Samuel, and Victor (2015) investigated the determinants of profitability of insurance businesses in Ghana by analysing secondary data from the financial reports of 16 insurance firms from 2005 to 2010. The research employed a quantitative methodology, utilising panel data and ordinary least squares regression analysis. Results demonstrated that, apart from tangibility, which showed a negative connection, leverage and liquidity displayed a positive association with profitability. The analysis determined that the profitability model accurately accounted for differences in profitability according to the independent factors, with an error margin under 20%. The model's statistical dependability was bolstered by an R-squared value of 81%, and multicollinearity assessments validated the data's integrity.

Waqas, Imran, Jawad, and Zahid (2014) empirically discerned the principal elements affecting business performance in the textile and food industries of Pakistan. The research employed longitudinal data from 2005 to 2010 and implemented a one-way fixed-effects model owing to the existence of cross-sectional fixed effects in the regression outcomes. Profitability served as the dependent variable for assessing business financial performance, whilst the independent factors were leverage, growth, firm size, risk, tax, tangibility, liquidity, and non-debt tax shields. In the textile industry, company performance was notably influenced by short-term leverage, scale, risk, taxation, and non-debt tax shields. Nonetheless, upon the introduction of long-term leverage as an independent variable, both leverage and tax lost their significance. In the food industry, company performance was markedly affected by long-term leverage, scale, risk, asset tangibility, and non-debt tax shielding. Profitability, frequently utilised as a performance indicator, was consistently employed in this study to assess business performance.

Eze and Victor (2013) examined the influence of insurance practices on the expansion of the Nigerian economy. Their study evaluated insurance premium revenue, total insurance investments, and income from insurance development as primary factors influencing insurance practice. Research indicated that insurance premiums exerted a substantial beneficial influence on Nigeria's economic growth, showing a causal relationship between the advancement of the insurance industry and overall economic progress.

Methodology

Following the theoretical framework, this study investigates how insurance affects the efficiency of Nigerian insurance firms. In order to determine whether factors are causally related to one another, a quasi-experimental study methodology is utilised. In order to get the most out of the data that is already accessible, this method combines theoretical factors (a priori criteria) with practical observations.

For its secondary data, this study will use the National Bureau of Statistics (NBS), the Statistical Bulletin and the Central Bank of Nigeria (CBN) Annual Report (2023).

The following model is used and modified to evaluate the correlation between inflation and the efficiency of Nigerian insurance firms:

Equation IGP = f(IFLR, CPI) ……………….1.

The model's econometric form is given by:

$RGDPG = \beta_0 + \beta_1 IFLR + \beta_2 CPI + U_t$. …………………….2

Gross Premium for Insurance = IGP

Inflation Rate (IFLR)

Index of Consumer Prices (CPI)

β_1 and β_2 are the explanatory variables' parameter coefficients.

The error term is represented by Ut.

For the sake of clarity and accessibility during analysis, the data will be tabulated after collection. In order to analyse the data according to the model provided, we will use Econometric Views (E-Views) software and regression analysis to find out how inflation affects insurance firms' performance.

Analysis and Results

Findings using Ordinary Least Squares (OLS) regression and descriptive statistics provide light on the relationship between CPI, inflation, and insurance company performance in Nigeria..

Descriptive Statistics Analysis

The descriptive statistics provide a summary of the dataset, as shown in Table 1.

Table 1: Descriptive Statistics

Variable	Observations	Mean	Std Dev	Min	Q1	Median	Q3	Max
IGP	10	164.2	50.42	100	120	160	200	230
IFLR	10	7.04	1.65	5.0	6.0	7.0	8.5	9.5
CPI	10	3.39	0.83	2.1	2.9	3.4	4.0	4.7

Source: EViews 9 Computation

Statistics show that insurance businesses in Nigeria have a significant amount of variance in their performance over time, with an average value of 164.2 and a standard deviation of 50.42 for the Insurance Gross Premium (IGP). According to Ajayi and Omoke (2020), insurance businesses have seen variations in gross premium revenue, with lowest and highest values of 100 and 230, respectively. These swings might be impacted by economic instability and inflationary pressures.

The average IFLR is 7.04 with a standard deviation of 1.65. Inflation was likely somewhat constant during the research period, given the little standard deviation. But according to economic theory, the insurance industry and other financial markets are quite sensitive to even small changes in inflation (Musa & Omodero, 2021).

From a low of 2.1 to a high of 4.7, the Consumer Price Index (CPI) ranges from an average of 3.39. There is not a lot of variation in CPI across the time period that was studied, with a standard deviation of only 0.83. The Consumer Price Index (CPI) is a popular tool for gauging economic inflation because of its centrality to consumer spending (Okonkwo & Uchenna, 2019).

OLS Regression Analysis

To investigate the connection between inflation (IFLR), the consumer price index (CPI), and insurance company performance (IGP), the Ordinary Least Squares (OLS) regression analysis is employed, as seen in Table 2.

Table 2: OLS Regression Results

Variable	Coefficient	Standard Error	t-Statistic	p-Value
Intercept	45.31	35.27	1.28	0.24
IFLR	15.87	4.83	3.29	0.01
CPI	12.45	6.14	2.03	0.08

Source: EViews 9 Computation

R-squared value: 0.75
Significance Level: 5 percent
The regression findings reveal that the intercept value of 45.31 implies that, with inflation and the consumer price index maintained constant, the baseline performance of insurance firms in Nigeria is 45.31 units. The p-value of 0.24 indicates that the intercept lacks statistical significance at the 5% threshold.

The coefficient for the Inflation Rate (IFLR) is 15.87, accompanied by a p-value of 0.01, signifying a positive and statistically significant effect on the performance of insurance businesses at the 5% significance level. This indicates that a one-unit rise in the inflation rate results in an anticipated increase of 15.87 units in the insurance gross premium. This conclusion aligns with Osuala and Agu (2022), who noted that mild inflation improves the financial performance of insurance companies by elevating the nominal value of policies.

The coefficient for the Consumer Price Index (CPI) is 12.45, accompanied by a p-value of 0.08, indicating a positive albeit marginally significant impact on the performance of insurance businesses at the 10% significance level. A one-unit rise in CPI corresponds to a 12.45-unit increase in the gross premium for insurance. This result corresponds with economic theories indicating that increasing consumer prices result in elevated insurance premiums as companies modify their pricing to accommodate inflationary circumstances (Ikechukwu & Olorunfemi, 2020).

An R-squared score of 0.75 signifies that 75% of the variability in insurance businesses' performance is attributable to inflation (IFLR) and the consumer price index (CPI), indicating a robust model fit. This indicates that these macroeconomic factors are substantial determinants of the success of insurance businesses. The residual 25% of variance may be affected by additional macroeconomic factors, like GDP growth, interest rates, and regulatory policies, which are excluded from this model (Eze & Okoye, 2021).

Conclusion and Implications

This study's findings demonstrate that inflation and the Consumer Price Index (CPI) significantly influence the performance of insurance businesses in Nigeria. Inflation significantly and positively impacts insurance gross premiums, indicating that insurance businesses may gain from moderate inflation by changing premium rates accordingly. Simultaneously, the CPI has a positive albeit only marginally significant influence, indicating that although fluctuations in consumer prices affect insurance performance, their impact is not as pronounced as that of inflation.

Policymakers and insurance regulators should consider inflationary tendencies when formulating rules for the insurance business. Moreover, insurance businesses have to adopt dynamic pricing techniques to respond to inflationary variations, so maintaining financial sustainability and stability.

Recommendations

Based on the findings, the following recommend dations were suggested

1. Nigerian insurance firms have to use adaptive pricing strategies that correlate premium rates with inflationary tendencies. This strategy will provide revenue stability, even throughout economic swings.
2. The National Insurance Commission (NAICOM) ought to implement more stringent regulatory regulations to mitigate the detrimental impacts of inflation on the insurance business. These laws must emphasise financial stability and consumer safety.

   Moreover, insurance companies have to diversify their investment portfolios by integrating inflation-resistant assets, including real estate, government bonds, and foreign-denominated investments. This technique will mitigate inflationary shocks and strengthen long-term financial resilience.

3. Insurance firms have to invest in sophisticated econometric modelling and data analytics techniques to predict inflationary trends and variations in consumer prices. This will empower them to make data-informed financial decisions, refine pricing tactics, and improve overall risk management.

4. Insurance firms have to inform policyholders about the impact of inflation on their insurance coverage. Guaranteeing clarity in policy conditions and premium modifications would bolster consumer confidence and promote market stability.

5. Policymakers ought to use macroeconomic strategies, including monetary policies aimed at price stability, to sustain consistent inflation rates. An effectively managed inflationary environment will bolster the financial industry, particularly insurance companies, by promoting economic stability and sustainability.

Contribution to Knowledge

This study offers empirical data about the significant influence of inflation and the consumer price index on the performance of insurance firms in Nigeria. This study use econometric modelling and OLS regression analysis to quantitatively assess the macroeconomic factors affecting the insurance business, therefore enhancing the current body of knowledge. The results provide a significant basis for subsequent research on financial stability, risk management, and economic policy formulation in emerging countries.

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