Analysis of the impacts of insurance claims settlement on economic growth: The case of Nigeria

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Abstract

Insurance plays an essential role in stimulating economic growth. Insurance is an intangible product, and prompt claim settlement proves that insurers fulfil their promises to the insureds. This paper analyses the impacts of insurance claims settlement on economic growth. It examines the effect of insurance claims' settlements on a nation's economic growth, using Nigeria as a case study. The research utilised an ex-post facto design, using 28-year time series data (1992 – 2019). Gross Domestic Product (GDP) and Nigeria's insurance companies' claims settlement are the dependent and independent variables used for the study, respectively. The Long-run co-integration result revealed that INCLM (Insurance claims) has an insignificant negative effect on GDP. The coefficient shows that a percentage increment in INCLM (Insurance claims) would result in a 1.22 decrease in GDP. The results indicate that insurance claims settlement has an insignificant negative effect on economic growth. This implies a negative relationship between insurance claims settled by insurance companies and economic growth in Nigeria. The finding is surprising as one expects that settlement of claims by insurers should positively impact economic growth. The implication is that the relationship between insurance claims settlement and economic growth varies depending on several factors, including country-specific factors and the performance of the country's insurance industry.

Introduction

Insurance plays an essential role in stimulating economic growth. The insurance sector significantly mitigates unexpected occurrences and indemnifies insureds who suffer losses caused by the insured perils based on the insurance terms and conditions (Fadun & Shoyemi, 2018; Oladele & Uzoma, 2018). The insurance sector impacts a nation's economic activities directly and indirectly (Ayewumi & Awani, 2021; Safitri, 2019; Yeboah & Oppong, 2017). The insurance sector contributes to economic growth in developed and developing countries. However, the insurance industry's performance influences insurance's contribution to a nation's economic growth (Fadun, 2021; Ward & Zurbruegg, 2000).

The size of a nation's insurance industry is vital for measuring its economic growth (Asongu & Nicholas, 2019). The insurance industry undertakes the risks from economic activities, thereby contributing to a nation's economic growth (Fadun, 2021; Fadun & Shoyemi, 2018). The perceived problem that necessitated this study is the importance of prompt claim settlement in encouraging the insuring public to purchase insurance, thereby deepening insurance penetration and contributing positively to economic growth (Fadun, 2021; Kwanga, 2017; Kavitha et al., 2012). Insurance is an intangible product, and prompt claim settlement proves that insurers fulfil their promises to the insureds. Some studies also revealed that insurance does not positively impact economic growth (Nwani & Omankhanlen, 2019; Webb et al., 2005). Ward and Zurbruegg (2000) asserted that country-specific factors influence the relationships between insurance and the economic growth of a country. However, there is yet to be consensus on the impact of insurance and economic growth. Hence, further research on the effects of insurance claim settlement on economic growth is needed.
This study examines the impacts of insurance claim settlement on economic growth, using Nigeria as a case study. Therefore, this study fills gaps in the literature and contributes to knowledge accordingly.

This paper analyses the impacts of insurance claims settlement on the economic growth of developing countries, using Nigeria as a case study. This study addresses the research question, 'What is the impact of insurance claims settlement on a nation's economic growth?' The data collected for this study was analysed using multiple regression models.

This paper is organised as follows: after the introduction, the second part is the literature review with conceptual, theoretical and empirical review and development of the research hypothesis. The third part discusses the methodology and highlights the study's model specification. After analysis and hypothesis testing, a discussion of the findings is presented. Lastly, the paper's conclusion and recommendations are discussed.

**Literature Review**

**Theoretical and Conceptual Background**

**Insurance**

Insurance is essential for a modern economy's good and smooth running (Mdanat et al., 2019; Ugwunta & Ugwuan, 2019; Beck & Webb, 2003). (Nkoro et al., 2019; Fadun & Shoyemi, 2018). Insurance induces economic growth by helping small and medium-scale entrepreneurs take inventive and higher-return projects (Fashagba, 2018; Harrington & Niehaus, 2016). Insurance facilitates a pool of risk and cooperation for spreading the loss of unfortunate insureds in exchange for premium payment from the accrued contributions of all persons contributing to the fund or scheme (Feinman, 2018; Fadun & Hood, 2016). Insurance is a risk transfer mechanism whereby one party (known as the insurer) promises to indemnify or pay another party (known as the insured) appropriately if he suffers a specified loss or damage (Feinman, 2018; Zouhaier, 2014). Insurance helps to minimise losses which are beyond human control and assists in improving loss prevention practices. The insurance sector's development positively impacted a nation's (including developed and developing countries) gross domestic product and economic growth (Akinlo, 2013). However, some studies have established that insurance practices positively affect Nigeria's economic growth (Nwosa & Mustapha, 2018; Eze & Okoye, 2013).

**Insurance Claims**

The principle of indemnity plays a vital role in the payment or settlement of an insurance claim. An insurer must settle legitimate insurance claims presented by the insured, subject to the policy terms and conditions (Feinman, 2018; Yusuf & Ajemunigbohun, 2015). The insurance company will accept liability if the claim is genuine and repudiate liability if the claim is fictitious (Feinman, 2018: Angima & Mwangi, 2017). If an insurance claim is genuine and approved by an insurance company, it would be appropriately paid or settled by the insurer. There are four methods of indemnity: cash, repair, replacement and reinstatement (Maggioni & Turchetti, 2022; Rejda et al., 2021).

There are two types of insurance contracts: Indemnity and benefit. Indemnity contracts consist of insurance contracts in which an insurer undertakes to indemnify or compensate the insured based on the contract terms (Maggioni & Turchetti, 2022; Rejda et al., 2021). Indemnity contracts include Motor, property, householder, marine and aviation insurance. An indemnity insurance contract aims at restoring the insured to its previous position before the loss occurs (Maggioni & Turchetti, 2022; Rejda et al., 2021). In contrast, benefit contracts are insurance contracts in which an insurer cannot place the insured in its position before the loss. Examples of indemnity contracts include life, personal accident, and sickness insurance. An insurer indemnifies the insured under an indemnity contract; hence, such insurances are indemnity insurance policies (Maggioni & Turchetti, 2022; Rejda et al., 2021). On the other hand, an insurer compensates the insured under a benefits contract because it is impossible to indemnify the insured for the loss incurred - e.g., loss of an arm or a leap (Maggioni & Turchetti, 2022; Rejda et al., 2021). The insurance claim settled under a benefits contract is compensation, not an indemnity.

**Indemnity Theory**

Indemnity theory is adopted for this study. Indemnity is a mechanism through which insurers’ indemnify or compensate insureds’ for losses caused by insured perils based on the contract terms and conditions. The indemnity principle is subject to the principle of indemnity, one of the principles of insurance contracts. Indemnity theory advocates that an insurer should place the insured in its financial position before the loss (Marandi & Moradmahi, 2016; Fadun, 2013).

An insured should not make a profit in a claim settlement following a loss caused by the insured perils. However, indemnity prevents the insured from recovering an amount (claims) that is more than the financial loss incurred because indemnity does not permit insureds to make a profit at the detriment of insurers (Rejda et al., 2021; Marandi & Moradmahi, 2016). There are four primary ways of indemnification: cash, repair, replacement and reinstatement (Rejda et al., 2021; Marandi & Moradmahi, 2016; Vaughan & Vaughan, 2014).
Repair is an indemnity method frequently used by insurers in settling insurance claims. Motor and marine insurance is the best example, where garages are authorised to repair damaged vehicles. In most cases, insurers pay insureds claims by cash payment and cheques. Replacement is a method of indemnity that insurance companies usually do not prefer. Replacement is often used in glass insurance, where the insurers get the glass replaced by firms with whom they have arrangements at discounted rates. In some cases of jewellery and personal effect insurance, replacement is used when there is no agreement on the actual value of the lost item.

Reinstatement is a method of indemnity that applies to property insurance where an insurer undertakes to restore the building and repair damaged machinery. Sometimes an insurance policy explicitly gives an insurer the right to pay money (cash) instead of reinstating the building or repairing the machinery. Factors limiting the indemnity principle and theory include franchise, average, limit, sum insured, excess and deductible (Rejda et al., 2021; Marandi & Moradmahi, 2016). The indemnity theory is suitable for this study because the settlement of claims by insurers ensures that insureds' losses are paid (settled), thereby enabling individuals and organisations to contribute positively to economic growth.

The indemnity theory relates to the research question and hypothesis because indemnity is vital in insurance claims settlement in ensuring that insureds are indemnified and compensated. Indemnification of insureds by insurers facilitates claims settlement to stimulate economic activities, thereby promoting economic growth.

Empirical Review and Hypothesis Development

Several studies revealed that the insurance business' growth is associated with economic growth (Fadun & Silwimba, 2023; Fadun, 2021; Peleckiene et al., 2019; Adetunji et al., 2018; Mohyul-Din et al., 2017; Dhiab & Jouili, 2015; Zouhaier, 2014; Pen-Fen et al., 2012; Mojekwu et al., 2011; Webb, Grace & Skipper, 2005; Ward & Zubruegg, 2000). The insurance industry is essential in managing risks by individuals, organisations and governments in developing and developed economies. The insurance industry is critical in financial intermediation to improve economic activities and enhance a nation's economic growth (Fadun, 2021; Fadun & Shoyemi, 2018; Yinusa & Akinlo, 2013). Poor claim settlement significantly affects the demand for Insurance policies (Oyetunji & Momoh, 2021; Islam & Hossain, 2018; Lawrence, Evans & Richard, 2017; Jiandong, 2016). There is a positive relationship between insurance claim settlement and the demand for insurance policies (Ighinovia & Kekere, 2022; Oyetunji et al., 2021; Isimoya & Ajemunigbohun, 2019). The implication is that increasing insurance purchases will positively impact economic growth.

Prompt claim settlement by an insurance company fulfils the promise to indemnify or compensate the insured based on the contract terms and conditions (Maggioni & Turchetti, 2022; Rejda et al., 2021). Prompt claim settlement by insurers is beneficial as it ensures public confidence in the insurance industry to purchase insurance products and services (Ajemunigbohun et al., 2022; Ayuba et al., 2020; Butler & Francis, 2015). A significant increase in insurance policies purchased by the insurer public increased insurance penetration, especially among rural dwellers (Idowu & Fadun, 2022; Fadun, 2021; Salieh et al., 2018). Sound and prompt claims handling are, therefore, necessary to improve the perception of insurance products and improvement of the image of the insurance industry (Afolabi, 2018; Yusuf et al., 2017).

Total insurance claims settled by insurance companies positively impact Nigeria's gross domestic product, thereby contributing to the country's economic growth (Etale, 2019; Olusegun, 2018). Moreover, poor claim settlement significantly impacts insurance purchases in Nigeria (Oyetunji & Momoh, 2021; Oyetunji et al., 2021). Ajemunigbohun et al. (2022) affirmed that claims settlement promotes good risk attitudes from motor insurance policyholders. Therefore, insurance companies must be proactive and innovative in their service delivery strategies to meet consumer needs, thereby changing the expectations of policyholders to ensure improved service delivery and prompt claim settlement (Idowu & Fadun, 2022; Oyetunji et al., 2021; Ajemunigbohun et al., 2020).

Consequently, the under stated hypothesis was developed for this study:

Ho: Insurance claims' settlements do not positively impact a nation's economic growth.

Hi: Insurance claims' settlements positively impact a nation's economic growth.

Research & Methodology

The target population for this study consists of the data for indicators being considered, including Nigeria's Gross Domestic Product (GDP) and Nigeria's insurance companies' claims settlement from 1992 - 2019. The research utilised an ex-post facto design, using 28-year time series data (1992 – 2019). Ex post facto design is suitable for this study because it allows the researcher to predict a possible effect that has already occurred. The data used for this study was extracted from the Central Bank of Nigeria (CBN) Statistical bulletins, insurance companies' annual reports, and the National Bureau of Statistics. Secondary data, consisting of insurance claims settlement and economic growth indices (gross domestic product), was used for this study.

Model Specification

This study is quantitatively based and built on existing studies and methodologies. The data collected was analysed using multiple regression models, descriptive statistics, unit root tests and ordinary least squares. The data analysis tools adopted help the research avoid challenges and biases in determining the relationship between variables. The model adopted for this study was based on...
previous research, including Oke (2012); Curak et al. (2009); Ward and Zurbruegg (2000); and Kugler and Ofoghi (2005). The adapted following linear equation was developed for this study:

\[ \text{GDP}_t = f(\text{INSURANCE}_t) \]
\[ \text{GDP}_t = f(\text{INCLM}_t) \]

Where:

GDP = Gross domestic product at time t

INCLM= Insurance claims at time t

Model for Hypothesis

The model presented below captures the relationship between insurance claims and economic growth in Nigeria.

\[ \text{GDP}_t = (\text{INCLM}_t) \]
\[ \text{GDP}_t = (\alpha_0 + \beta_1 \text{INCLM}_t + \mu) \]

Where:

GDP = Gross domestic product at time t

INCLM= Insurance claims at time t

\( \mu \) = Disturbance term/White noise at time t

\( \alpha \) = Intercept

Data Analysis

The data collected was analysed using Eview statistical software. Table 1 shows the descriptive statistics of the data used for this study.

<table>
<thead>
<tr>
<th>Table 1: Descriptive Statistics – GDP and Insurance Claims</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GDP</strong></td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Median</td>
</tr>
<tr>
<td>Maximum</td>
</tr>
<tr>
<td>Minimum</td>
</tr>
<tr>
<td>Std. Dev.</td>
</tr>
<tr>
<td>Skewness</td>
</tr>
<tr>
<td>Kurtosis</td>
</tr>
<tr>
<td>Jarque-Bera</td>
</tr>
<tr>
<td>Probability</td>
</tr>
<tr>
<td>Sum</td>
</tr>
<tr>
<td>Sum Sq. Dev.</td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

**Note:** Gross Domestic Product (GDP), INCLM (Insurance claims).

**Source:** Researcher’ Computation using Eview Statistical Package

Table 1 shows the descriptive analysis of GDP and insurance claims. Mean is the average value of the data collected, computed by dividing the total value by the number of observations. Table 1 shows that the Mean value of GDP is 12.7% and INCLM is 570.9%. The median is the middle value of the series when the values are arranged in ascending order. Table 1 shows that the Median GDP is 9.75% and INCLM is 340.1%. The maximum and minimum values for GDP are 20.8 and 6.20, and INCLM is 159.5 and 639.60. The standard deviation is a measure of spread or dispersion in the series. Table 1 also shows that the standard deviation for GDP is 5.59 and INCLM is 590.5.

Skewness is a measure of the asymmetry of the distribution of the series around its mean. Positive skewness implies that the distribution has a long right tail, and negative skewness means the distribution has a long-left tail. The skewness of a normal distribution is zero. Table 1 shows the GDP skewness of 0.27, and INCLM is 0.63. Kurtosis measures the peakedness or flatness of the distribution of the series. If the kurtosis is above three, the distribution is peaked or leptokurtic relative to the normal. If the kurtosis is less than three, the distribution is flat or platykurtic relative to normal. Table 1 shows that the Kurtosis of GDP is 1.26 and INCLM is 1.86. FI is leptokurtic at 1.2 since (1.2<3) and INCLM is 1.8 since (1.8<3). Table 1 indicates that the Jarque-Bera Statistics of GDP is 7.73 at 0.02, which suggests that the variable is normally distributed. INCLM is 6.55 at 0.03 (Table 1), indicating that the variable is normally distributed. The unit root test results are presented in Table 2.
Table 2: Unit Root Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level</th>
<th>Critical value @ 5%</th>
<th>First Difference</th>
<th>Critical value @ 5%</th>
<th>Prob</th>
<th>Order of Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI</td>
<td>-1.0672</td>
<td>-2.9155</td>
<td>-7.3720</td>
<td>-2.9165</td>
<td>0.0000</td>
<td>I(1)</td>
</tr>
<tr>
<td>INCLM</td>
<td>-5.1950</td>
<td>-2.9165</td>
<td>--------</td>
<td>--------</td>
<td>0.0001</td>
<td>I(0)</td>
</tr>
</tbody>
</table>

Source: Researcher’s Computation using Eview Statistical Package

Table 2 shows the results of the augmented dickey fuller unit root test. Table 1 shows that FI is stationary at the first difference I(1), and INCLM is stationary at the I(0) level. The Johansen Co-integration and VECM will be used to test the short and long-run estimates in the variable.

Hypothesis Testing

The research hypothesis was tested using the T-test, R2 Coefficient of Determination and Regression Coefficient to establish the relationship between variables.

Decision Rule: If the computed t is greater than the critical t, the Ho will be rejected, accept the alternative hypothesis, and vice versa.

The research hypothesis is stated below:

Ho: Insurance claims' settlements do not positively impact a nation's economic growth.

Hypothesis testing model:

\[ GDP_t = (\alpha_0 + \beta_1 INCLM_t + \mu_t) \]

Table 3: Johansen Co-integration Test

<table>
<thead>
<tr>
<th>No. CE(s)</th>
<th>EV</th>
<th>TS</th>
<th>CV</th>
<th>Prob</th>
<th>Max. Va</th>
<th>CV</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>0.366046</td>
<td>25.79998</td>
<td>15.49471</td>
<td>0.0010</td>
<td>24.61204</td>
<td>14.26460</td>
<td>0.0008</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.021759</td>
<td>1.187946</td>
<td>3.841466</td>
<td>0.2757</td>
<td>1.187946</td>
<td>3.841466</td>
<td>0.2757</td>
</tr>
</tbody>
</table>

Source: Researcher’s Computation using Eview Statistical Package.

Note: Eigen-value (EV), Trace statistic (TS), Critical Value (CV), Max.Eigen Value (Max-Eigen Value)

Table 3 shows the results of the Johansen co-integration test of the hypothesis at a 5% level. Table 4 shows that the results of the long-run co-integration revealed that INCLM (Insurance claims) has an insignificant negative effect on GDP. Insurance claims explain the GDP at 0.40 or 40%. If an additional variable is added to the model, the dependent variable will still be explained at 0.39 or 39%. The co-efficient further shows that a percentage increment in INCLM will lead to a 1.22 decrease in GDP.

Table 4: Long-Run Estimate

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCLM</td>
<td>-1.223305</td>
<td>9.889606</td>
<td>-1.232308</td>
<td>0.2233</td>
</tr>
<tr>
<td>C</td>
<td>11.88224</td>
<td>1.654697</td>
<td>7.180918</td>
<td>0.0000</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.409199</td>
<td>Mean dependent var</td>
<td>12.90182</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.399496</td>
<td>S.D. dependent var</td>
<td>5.579576</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>5.606004</td>
<td>Sum squared resid.</td>
<td>1665.646</td>
<td></td>
</tr>
<tr>
<td>Long-run variance</td>
<td>112.7226</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s Computation using Eview Statistical Package.
This paper analysed the impacts of insurance claims settlement on the economic growth of developing countries, using Nigeria as a case study. The findings revealed that insurance claims' settlements do not positively impact a nation's economic growth. Therefore, the finding suggests an insignificant negative relationship between insurance claims settled by insurance companies and a nation's economic growth in Nigeria. The implication is that there is no significant relationship between insurance claims settlement and economic growth in Nigeria.

**Discussion of Findings**

This paper analysed the impacts of insurance claims settlement on economic growth, using Nigeria as a case study. This study uses twenty-eight (28) years of time series data (1992 - 2019) to explore the effect of insurance claims' settlements on a nation's economic growth. The findings indicate that insurance claims settlement has an insignificant negative impact on economic growth. The explanatory variables are insurance claims settled by Nigeria's insurance companies. The indicator of the economy's growth is GDP, the dependent variable. The finding suggests an insignificant negative relationship between insurance claims settled by insurance companies and economic growth in Nigeria.

The co-integration technique was used for data analysis, and the results revealed a long-run relationship between gross domestic product (GDP) and Insurance claims (INCLM). The Fully Modified Least Square regression depicts that INCLM has an insignificant negative effect on the GDP. The co-efficient further showed that a percentage increment in INCLM would lead to a 1.22 decrease in GDP. The error correlation model (ECM) coefficient result showed a correct sign at 1%, which measures the speed of adjustment between GDP and INCLM at the equilibrium level. The coefficient of ECM is negatively insignificant at the 5% level. This means that a 1% adjustment rate towards equilibrium exists and that the relationship between GDP and INCLM has an automatic mechanism.

The findings indicate an insignificant negative relationship between insurance claims settled by insurance companies and economic growth in Nigeria. The theory adopted for this study (i.e., indemnity theory) advocates that the settlement of claims by insurers ensures that insureds' losses are paid (settled) to improve economic activities and promote economic growth. The finding is surprising as one expects that settlement of claims by insurers should positively impact economic growth. However, the results of this study indicate an insignificant negative relationship between insurance claims settled by insurance companies and economic development in Nigeria.

The insignificant negative impacts of insurance claims settlement may be due to country-specific factors, which need to be more consistent with some previous studies and contrary to a priori expectations. This is consistent with previous studies that emphasised that the relationships between insurance and economic growth are country-specific (Gabriel, 2015; Ward & Zurbruegg, 2000). Hence, the finding is relevant for practice and decision-making because country-specific factors significantly impact a nation's economic growth. The implication is that the relationship between insurance claims settlement and economic growth varies depending on several factors, including country-specific factors and the performance of the country's insurance industry.

**Conclusion**

This paper analysed the impacts of insurance claims settlement on the economic growth of developing countries, using Nigeria as a case study. The findings revealed that insurance claims' settlements do not positively impact a nation's economic growth. It suggests that no significant relationship exists between insurance claims settled by insurance companies and economic growth in Nigeria and, by implication, other developing countries.

Based on the findings of this study, the following are recommended:
i. There is a need for insurance practitioners to do more to improve the image of the insurance industry in Nigeria and other developing countries. This is necessary to increase the number of insurance purchased by the insured public and the effectiveness of claims insurance claims processing.

ii. Poor claims settlement harms premium income and new business generation from life policies. Hence, the need for prompt claims settlement by insurance companies in Nigeria and other developing countries to improve public confidence in the insurance industries.

iii. Insurance regulators should enforce corporate governance and strict compliance with the laws regulating claims settlement practices.

iv. Research is a continuous process. Each research work is limited. Two variables are used in this study: Nigeria's GDP and Nigeria's insurance companies' insurance claims settlement. Hence, future studies can use more variables for a broader perspective on the impact of life and non-life insurance claims settlement on economic growth in developing countries.

References


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