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To cite this article: A.T. Nwani and A. E. Omarkhanlen 2019 *J. Phys.: Conf. Ser.* **1378** 042093

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# Insurance Receivables and Economic Growth: The Case of Nigeria

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## Abstract

The study was undertaken to establish the impact of insurance receivables on economic growth using life premium, non-life premium and insurance investment as the proxy for insurance receivables. The insurance industry is one which has strived in the face of economic crisis and is still striving to grow, with so many claims to settle, the insurance industry tends to invest their premium from life and non-life insurance policies so to offset claims, gain income and also contribute to the economy. This study hence conducted a research to know the extent to which these premiums and investment have impacted on the Nigerian economic growth. The study used the panel data between the periods of 2008-2017 among six insurance companies. The panel OLS was used to analyze the data and the hausman test was used to adopt the random effect result used to interpret the data. The result of the study showed that the life premium was positively insignificant to economic growth; the non-life premium was negatively insignificant to economic growth while the insurance investment was positively insignificant. This insinuates that the insurance industry has very little impact on the Nigerian economic growth. Further studies should be carried out by increasing the number of years for the data, the number of insurance companies and more variables can be added.

**Keywords:** premium, insurance, economic, investment

## 1. Introduction

European traders, in 13<sup>th</sup> and 14<sup>th</sup> century travelled all over the globe to prevent the issue of fraudulent activities by the captain and shipping members which was also known as *risicum gentium* (*risico* people), as trade went on the traders realised that the risk of damaged goods or danger on their lives became an issue and they could also not reach out to other markets, the traders decided to make use of agents in other countries to sell their good on their behalf, though the risk of sending these products to the agents by road or sea also became an issue, they experienced issues such as sea storms, pirate attack, damaged goods while loading and off-loading, in other to reduce this problem the traders decided to send their goods in smaller quantities which also had the problem of elongated process in sending goods and time consumption this was what led to the introduction of insurance [1]. The beginning of contemporary insurance in Nigeria was due to the presence of the British international dealings, because of these activities, risks were inevitable, and this influenced the idea of the insurance industry in Nigeria. Foreign officials from other nations granted insurance agency licenses to trading companies that granted them permission to issue oversight and cover allegations. In 1913 [2], the royal exchange insurance company made the opening of the African and Eastern trade firms. This is recognized as Nigeria's first ever insurance company and other organizations such as the legal and public insurance of the BEWAC, Patterson Zochonis (PZ) Liverpool and Law Union and Rock. The Nigerian insurance firms' original trading years were slow between the 1920s and 1940s. The Nigerian Insurance Industry picked up its rate of development once the conflict was over. The first Nigerian insurance company was the restricted African insurance corporation set up in 1958, when Nigeria achieved autonomy in 1960, there were 25 insurance firms in Nigeria, only 4 of which were held by Nigerians [3]. The creation of the Nigerian Insurance Department, part of the Federal Ministry of Commerce, was



implemented after a study by [4], the insurance businesses law created the insurance registrar's bureau, whose primary aim was to control insurance operations, enforce minimum investment requirements and ensure that registration laws and laws were maintained. The insurance order was implemented in 1976, thus outstripping the overseas firms by the amount of local firms. The National Insurance Commission (NAICOM) [5] to supervise and arrange insurance in Nigeria and is considered the only insurance regulator in Nigeria. Insurance brokers in Nigeria are controlled the NCRIB which was established in 1962 to provide a central regulation for brokers. Brokers must be licensed before partaking in any insurance business and this license must be renewed from time to time [6]. The insurance industry is one which plays a main role in economic protection from identified risks, they perform different activities from underwriting, insurance policies, collecting premiums and paying claims. Due to these duties the Insurance Industry holds a huge burden on its shoulders especially in payment of claims. [7], stated that payment of claims should be a core practice in the Insurance Industry, unfortunately this is one aspect many insurance companies are having issues in, [8] stated that previous claims keep surfacing making the insurance business very challenging and profitability difficult [9, 10] stated that insurance companies must invest their funds in order for them to grow and profit. [11-12] stated that the importance of insurance investment is to manage funds generated by the business so as to maximize returns, meet regulatory requirements and other financial constraints. Also, discussed the importance of insurance investment portfolio, stating that their portfolio must be structured in a way that the insurance companies are able to balance between immediate liquidity which are claims and longer-term investment returns. This suggests that for insurance companies to sustain its self and still meet its obligations it must engage in investment, not just any but investments that bring in good returns, so the premiums collected from individual and company policy holders are invested so as to be able to pay up claims, acquire assets and meet regulatory demands [13]. The Nigerian insurance sector is not left out of the premiums, claim payment and investments, Onuoha [14] stated in a news article that the insurance industry experienced a 8.76% increase in premium, which was 109billion in 2016 and it increased to 118.55 billion in 2017 against a claim of 34.1 billion in 2016 and 40billion in [15], which was a 17.3% increase in claims, [16] also stated that the investment portfolio in the Nigerian Insurance Industry grew by 8% as at 2017; the Nigerian industry is investing a lot in different sectors of the economy. The life insurance premiums recorded a growth of 84% due to the investments made by the Pension Funds Administration (PFAs). Also, stated in its survey that by 2018, the Insurance Industry had the potentials of growing due to the increase in female empowerment; it stated that there would be an increase in female insurance because more women now have businesses which need to be insured, it is also stated that the Insurance Industry would be better if it collaborated with other sectors and also had an aggressive awareness programs [17]. The Nigerian insurance industry has experienced a lot of growth based on premiums. Therefore, this paper examines the impact of the premiums and investments collected and made by the industry on the Nigerian Economic Growth; this would give an insight into how effective these investments are to the development of the country and also expatiate on the investment portfolio of these companies to establish sectors where they need to improve their investments.

#### Insurance

Hansel (1998), defined insurance as a public device that provides monetary reward for the impact of unexpected events through the accumulated contributions made by different people partaking in the arrangement [18-20]. The writer described insurance as a tool used to pass the hazards of individuals and companies to the insurer who recognizes the loss experienced by the insured on

the basis of the account referred to as the premium. [21] the authors explained insurance as an organized structure where people involve themselves and also transfer these risks experienced by individuals to other people. Willet (1901), defined insurance as a social instrument used for making accruals so as to avert unforeseen events of capital loss which is done through the transfer of risks of various individuals to group of persons [22-24]. Defined insurance as part of risk supervision, used primarily to defend against the danger of an unforeseen case and the unbiased transfer of the danger of failure from one individual to another for a discount defined Insurance is an umbrella against a rainy day. It is a plan between the insurer and the insured in which the insured is assured by the insurer to reimburse the loss transpired by a particular cause during a certain period by a particular cause in exchange for some consideration known as premium. [25] defined insurance as an agreement where an individual called the insurer enters a contract to provide for the loss of another, known as the insured, on a specific sum of cash called premium, to the insured on the occurrence of an event. The writer also indicated that insurance is a collaborative tool for spreading the risk-induced loss to a variety of people who are subjected to it and settle to cover themselves against losses [26-27]. insurance is an agreement made by one party who pays consideration which is mostly money in exchange for a future repayment from a different party if a loss occurs. Francois [28] insurance is that where a party called the insurer, agrees to make payment to another party if an event unfortunately occurs.

#### Risk Management in Insurance

Holden (2002), the author viewed risk management as an aspect that seeks to diminish the economic costs that would normally be associated with those conditions and unforeseen events and by decreasing the economic damages should the event occur through insurance [29-30]. viewed risk management as a documentation, extent and treatment of disclosures of potential accidental losses almost always in situations where the only possible outcomes are loss or no, he also stated insurance as a technique in management techniques of risks. According to western [31] described risk management as a formal process of accessing exposure to risk and financial loss and taking the necessary action to minimize risk and one method of assessing risk is by risk mapping. According to a PWC survey, the use of mathematical modelling technique to determine the appropriate premium and relevance of insurance risk to hold or distribute is described as risk management. Insurance risk is also described as the measurement and quantification of the financial effect of unforeseen events in the client's life that need settlement by the insurer, and the capability to spread risk of the occurrence across other insurance companies [32].

#### Life Insurance

Oana (2012), the protection of an individual and his family and generation of income for a certain period in life can be described as life. [33-35], Life insurance contract is an agreement in which a person known as the insurer pays a fee frequently to another party who is known as the insured in the occurrence of an event related to human life. Principles of life insurance is the replacement of a family member's income in his death to his family is described as a life insurance policy. It is an agreement made between the insured persons and the company. If the insured dies when the agreement is still on then a certain sum of money is paid to the recipients. [36] described life insurance is an agreement between the insurance company and the insured, wherein the insurance company commits to pay a certain pre-decided amount, known as sum assured, to the nominee, upon death of the insured person buying the insurance. After receiving insurance, the life insurance agreement provides aspects of security and investment, the policyholder feels a feeling of security because at death or maturity he will be awarded a definite amount. Since a certain amount has to

be paid, the equity component is also present. In other words, life insurance offers a set amount at policy maturity against early death [37].

#### Non-life Insurance

Alibaster (2017), Non-life insurance, also called general insurance; this is a form of insurance which is popular among businesses and persons. It covers the insured financially in the occurrence of an unforeseen event. [38] described non-life insurance as insurance done majorly for properties. When an individual or company experiences a huge loss of its property, hence, they can insure their assets against damages. Non-life insurance, also known as asset and loss insurance, is a very prevalent form of coverage covering companies and people. It prevents them from catastrophe, monetarily, by offering cash in case of economic failure. Non-life insurance agreements are agreements of compensation. This implies that the insurance business operates to return you to the economic situation you were in before the claim causing accident when a complaint is submitted. This is also called "making you whole." For instance, the insurance company will not compensate more than the cost of fixing your car to its later condition in this type of arrangement [39].

#### Insurance Premium

The economic times [38] defined premium as an amount paid intermittently to the insurer by the insured for his risk and also stated that the premium is a part of a number of variables like age, type of employment, medical conditions. [39-41] stated that a premium is measured as the insurance company's revenue once it has been gained and is also liable in that the insurer must cover allegations against the policy. Described insurance premium as insurance premium is nothing but the amount collected by insurance company to cover the risk related to you. Premium can be paid in monthly, quarterly, half yearly and annual modes. Premium has to be paid the payment term you choose. (Principles of life insurance, 2018), described insurance premium as the consideration cash that a policy holder has to pay in lieu of the profit that the insurer promises to confer on the occurrence of the unplanned eventuality. OECD (2001), describes non-life insurance premium as premium fees paid by policyholders to acquire insurance during the accounting period and the premium extras paid to the insurance policyholders on demand of claims [42].

#### Gross domestic product

The economic times (2018), described GDP as the final importance of the goods and services manufactured within the geographic borders of a country during a particular period of time, usually a year. OECD (2018), defined GDP as a cumulative portion of production in relation to the amount of the gross values in addition to all manufacturers and official units involved in manufacturing in addition to any tax fees, and deduction of discount, on goods not added in the price of their outputs.

#### Theoretical Review

##### Markowitz Portfolio Theory

In 1952, Harry Markowitz, an American economist, in his paper, portfolio selection, the Markowitz Portfolio Theory (MPT), said that risk adverse investors tend to measure the level of risk associated with a financial product before making decisions on financial product to add in their portfolios, and they greatly emphasize risk as a major factor in reward. This theory however has widely been accepted as one of the most important theories when dealing in finance or investment. This theory suggested that's not sufficient to concentrate on the predictable risk and return of just one stock but to invest in multiple stocks which will help the investor gain benefits of diversification, especially in reduction of risk of the portfolio. According to Markowitz (1952), he suggested that no matter how an investor wants to maximize his returns he also wishes to

minimize his risks, these contrary goals have to be stable against each other when making decisions [13].

The Markowitz portfolio theory is important to the study in the sense that insurance companies tend to accumulate funds from the premiums they receive and then reinvest it in securities in order to make a profit and protect themselves in case of heavy losses.

#### Internal Funds Theory of Investment

This theory states that investments is based on the level of profit acquired by the company, according to Tinbergen (1969), he argued that realized profits accurately reflects expected profits. Based on the fact that investment likely depends on possible profits, investment is optimally related to expected profit. accumulated earnings and depreciation expense are sources of internal funds to the company, unlike borrowing externally which may put the company in a difficult state especially in the face of a recession, it becomes and for the company to set off its debt. This theory tends to maintain that internal funds are an important determinant of investment. This theory tends to suggest that companies tend to finance their investments from internal funds like retained earnings, this thereby applies to the insurance sector in the sense that insurance companies tend to accumulate the premiums they receive and invest it in other securities [14].

#### Accelerator Theory

The accelerator theory propounded by Clark (1917) states that When demand is in excess, companies tend to meet up by lowering demand by increasing rates or investing in others to satisfy demand. This occurs because companies react to an increase in demand in two ways, by increasing the prices of goods which will reduce demand or by investing more in production of goods which yields more profit, this way companies tend to have funds available for investment. Kenton (2018) described the theory as one which makes companies choose to increase production instead of prices of goods which will boost profit, attract investors and accelerate growth in the economy. Junankar (2017) explained the accelerator theory in two ways, he described as one which causes investment in capital equipment and investment in inventories but generally it is mostly used to explain investment by firms [15].

#### Empirical Review

Ozuomba (2013) conducted a study on the role of insurance investment and premium on the Economic Development of Nigeria, this analysis was carried out using error correction model between the periods of 1998-2007 and data collated from 71 insurance companies in Nigeria. The author decided that the connection between investment and Economic Development is optimal which shows that the insurance investment boosts Economic Growth in Nigeria. Fashagba (2018) carried out a research on the contribution of insurance to the Economic Development observing from the viewpoint of the life and non-life insurance premium, the multiple regression analysis was performed using data between the periods of 2007-2016, and the analysis concluded that there is an optimal connection the non-life insurance premium and the adverse connection between life insurance and economic growth investigator also stated that the implications mean there is a little growth in the area of life insurance in the country [16].

Mojekwu and Agwuegbo (2011) explored the Impact of insurance returns on Nigeria's economic development over 20 years from 1981 to 2008, using a vibrant factor system; the writer found that there is a favourable connection between insurance contributions and economic development, implying that a rise in insurance investments would also lead to economic growth. Sambo (2016) empirically observed the impact of insurance portfolio investment on Nigeria's gross domestic product over the periods of 1996 to 2012, using the multiple regression for the combined variables and The linear analysis of the investment-toGDP connection found that more mixture of insurance

undertakings from the fund portfolio would have an optimal influence on GDP, thus improving the investment efficacy of healthcare undertakings in Nigeria [17].

Olalekan and Akinlo (2013) the study performed studies on the long-term and short-term links between insurance development and Nigerian financial development between 1986 and 2010, using the mistake balance system, found that the growth of insurance co-integrated with economic growth in Nigeria indicated the importance of insurance contributions to economic growth.. Sajid, Arpah and Angappan (2017) The connection between insurance and economic growth for six nations was studied between 1980 and 2015. The research used panel car regressive distributed lagged technique to monitor long-term and short-term insurance economic development in the United States, United Kingdom, China, India, Malaysia and Pakistan, the writers said there is a long-term beneficial and strained connection between insurance and economic growth as well as an irrelevant connection between overseas direct investment and Economic development in the future [18].

Ismail (2015) conducted a research on development and economic effects of the insurance sector in the financial growth of Turkey, the connection between financial growth and the insurance industry are analysed in the period 2006-2014 using the granger causality test and the VAR system. The result stated that there is a positive relationship between economic developments and that the insurance sector can finance high investment in the world and also they are capable of issuing long term loans. Chien-chang (2011) the author conducted a research to Observe the connection between the operations of insurance exchanges and the economic development of 10 chosen OECD nations between 1979-2006 using panel unit-root testing, heterogeneous panel co-integration testing and panel causality testing. The outcome indicates a substantial beneficial association between GDP and insurance business operations, the writer also indicated that general insurance industry growth has a higher influence on GDP than life insurance business operations [19].

Olayungbo and Akinlo (2015) examines the dynamic by applying the Bayesian TVP-VAR approach uses insurance distribution and financial development in Africa to analyse shortterm and long-term variables, using insurance penetration as an financial growth insurance measure., establishing a favourable connection for Egypt, while for Kenya, Mauritius and South Africa a short-run adverse and long-run beneficial effect. Algeria, Nigeria, Tunisia and Zimbabwe have a adverse impact. Nwafor (2017) this paper Explored the effect of insurance undertakings on Nigeria's economic growth and growth over the era 2007-2016, analysed using normal minimum square regression methods, found that insurance undertakings in Nigeria have a substantial influence on Nigeria's economic development and that insurance undertakings cause a major influence on Nigeria's unemployment level [20].

Haiss and Sumegi (2008) studied the influence of insurance and premiums on Europe's GDP development. This research was analysed using a Cross-country panel data assessment for 29 European nations between 1992 and 2005. The outcome indicates a favourable effect of life insurance on GDP growth in 15 European nations and a big responsibility scheme for fresh European nations, hence the effect on insurance growth of the actual exchange level and the magnitude of financial development. Cummins and Neil (2006) the paper analyses the economic usefulness of independent insurance intermediaries, focusing on property insurance market, the paper analyses the functions of intermediaries, market competitiveness and intermediary commission. The result drawn from an empirical analysis shows that premium based and contingent commissions are passed on to policyholders in the premium [21].

## 2. Methodology

### Research Design

In this study, research design is the framework of methods and techniques the researcher has decided to combine in a reasonable manner so as to handle the problem. The tools used to collect and analyse data is decided with the research design. This research will be using the correlational research design. This design is used to assess the correlation between two variables which is shown through correlation coefficient. This is a arithmetical measure that computes the power of the connection between the variables. When the coefficient is close to +1 then it's a positive correlation and vice versa, then when its 0, there is no correlation. There are two forms of data collections in correlational research design which are naturalistic and archival data collection, this study will be adopting the archival data collection, which is data collected previously from primary research.

### Data Collection

The information type to use for this research is primarily panel and the data is secondary data that have been issued on the independent variables (insurance investment, life premium and non-life premium) and dependent variable in central bank statistical bulletin of Nigeria, the selected insurance companies within the period of 2008-2017. The reason for already published data due to the state of the studied variables and secondary data is much cheaper, easy to access and saves time. The area of this study is selected Nigerian insurance industries in Nigeria, which includes of 6 insurance companies namely, AIICO, AXA mansard, Leadway, Mutual benefits, Cornerstone and IGI (industrial and general insurance). Information that will be collected from these companies are their annual investments, life premiums and non-life premium data.

### Methods of Data Analysis

The study using STATA statistical suite software 13.1 used comparative method evaluation. This research used the information technique of the board to study the influence of receivables from insurance on economic growth in Nigeria. This study conducted a descriptive evaluation by reaching the mean, max, minimum, standard deviation and bar graph. The main rationale for descriptive evaluation is to figure out the median amounts and standard deviation of both the insurance receivables and the gross domestic product of Nigeria, as well as to demonstrate firms that each year produced the largest and smallest premiums and profits. The model detailed in this research is analysed using the usual least square panel of regression analysis to test the degree of the relationship between the variables.

### Model Specification

In this study, there are two variables: independent and dependent variables. The independent variable is insurance receivables measure by insurance investment, life premiums and nonlife premiums while the dependent variable is Nigerian Economic Growth measured by gross domestic product. The model for the variable is represented in the following equations below:

Y = dependent variable

X = independent variable

Y = gross domestic product

X = insurance receivables

Where

Y = gross domestic product (GDP)

X = insurance receivables (IR)

X1 = insurance investments (IV)



X2 = life premiums (LP)

X3 = non-life premiums (NLP)

Statistically we have

$$GDP = \alpha_0 + \beta_1 IINV + \beta_2 NLP + \beta_3 LP + e_i$$

$\alpha_0$  = constant of the equation  
 $\beta$  = coefficient of the independent variable  
 $e_i$  = residual error term or values

#### Theoretical Framework

This paper intends to adopt the accelerator theory propounded by Clark. JM in 1917 as one which best explains the model; the accelerator theory states that, if demand is excessive, businesses can satisfy demand in two respects; either lower supply through price increases or boost capital to satisfy demand levels. In relation to this paper, it implies that when many people demand for insurance policies, insurance companies tend to have enough funds to invest, thus the theory explains the increase in demand which in terms of insurance companies as a service rendering sector will either increase the percentage on sum insured which will reduce demand or invest in itself by introducing new products to cater for everyone or by acquiring new assets, with this the insurance sector is able to gain more earnings either by premium, investment or attraction of new investors to the sector which will in turn boost Economic Growth.

### 3. Result and Discussions

#### Descriptive Statistics

This sections looks at the statistical analysis of the dependent and independent variables. The variables gross domestic product, life premium, non-life premium and investment. The logarithms of the variables were taken to avoid econometric problem in estimation model.

Table 1 descriptive statistics

Variable	Obs	Mean	Std.dev	Min	Max
GDP	60	423000000	81900000	297000000	568000000
LP	60	831000000	1340000000	310310	7130000000
NLP	60	2210000000	2870000000	264622	14400000000
INV	60	839000000	1150000000	122003	3860000000

Source: researcher's computation using STATA 13.1

Table 1 shows the statistical analysis of the variables gross domestic product (GDP), life premium (LP), non-life premium (NLP) and investment (INV) of the study.

Mean is the central value of discrete set of numbers, it is also effective in deriving the central tendency of the data in question. It is calculated by adding all the data points in a raw piece of information and then dividing the total by the number of characters. The standard deviation shows the measure of dispersion in a dataset in correspondence to its mean and is determined as the square root of the variance.

In table 1 gross domestic products shows a mean value of 423000000 while the table shows a minimum value of 297000000 and a maximum value of 568000000. This indicates that during the period of study, the average amount of gross domestic product is 423000000. The independent variables, life premium, non-life premium and investment have means of 831000000, 2210000000 and 839000000 respectively. The minimum and maximum values of the variable as shown in table

1 shows that the gross domestic product grew as much as 568000000 and went as low as 297000000. Life premium also revealed the maximum value as 713000000 and the minimum value as 310310. The non-life premium shows the maximum value as 1440000000 and the minimum value as 264622, while the investment variable shows a maximum of 3860000000 and minimum value as 122003.

#### Empirical Results

Firstly, the correlation test as carried out which generated the correlation matrix. The correlation matrix in table 4.2 below reveals that the variables correlated. However, the coefficient of the correlation analysis for the regressors show that there is no presence of multicollinearity.

Table 2 correlation matrix

	LP	NLP	INV
LP	1.0000		
NLP	0.6373	1.0000	
INV	0.5644	0.6407	1.0000

Source: researcher's computation using STATA 13.1

Table 3 estimation results

Estimators	POLS	Fixed effects	Random effects
LP	0.0073 (0.501)**	0.01033 (0.367)**	0.00737 (0.498)**
NLP	-0.00162 (0.768)**	0.00430 (0.565)**	-0.00161 (0.767)**
INV	0.00444 (0.729)**	0.0256 (0.203)**	0.00444 (0.727)**
Constant	4.17 (0.000)	3.83 (0.000)**	4.17 (0.000)**
R <sup>2</sup>	0.0169	0.0632	
F-statistics	0.32 0.8098	1.15 0.3389	
No of observations	60	60	60

Source: researcher's computation using STATA 13.1

Note: p-values are in round brackets () and \*\* signifies 5% level of significance

#### Panel OLS interpretation

Using the panel OLS regression, F-statistic is used to examine the overall significance of the regression model. Looking at the results the f-statistic p-value is 0.000 which indicates that the overall regression model is significant at 5% level of significance. The R-squared which means the coefficient of determination is shown as 0.0169, this implies that 0.0169 unit change in gross domestic product was jointly explained by the independent variables, life premium, non-life

premium and insurance investment. For the life premium, the coefficient is shown as 0.0074 which implies that a unit increase in life premium will bring about a 0.0074 unit increase in gross domestic product, however, the regression result life premium was found to be positively insignificant, the p-value of t-statistic of the variable is shown as 0.501 which indicates its insignificance at 5% level of significance.

The non-life premium shows a coefficient of -0.00162 which implies that a unit increase in non-life premium will bring about a -0.00162 unit decrease in gross domestic product, the p-value of the t-statistics is 0.768 which indicates that non-life premium is negatively insignificant at 5% level of significance. The insurance investment shows a coefficient 0.0044 which indicates that a unit increase in insurance investment will bring about a 0.0044 unit increase in gross domestic product, the p-value of the t-statistics is 0.729 which indicates that insurance investment is positively insignificant at 5% level of significance. The estimate coefficient shows how much of the dependent variable changes when the independent variable increases, holding all other independent variables constant. Based on the regression result, the coefficient of the regression model is 4.17; this implies there will be a 4.17 unit increase in gross domestic product holding all other variables constant.

#### Fixed effect interpretation

The life premium variable shows a positive coefficient of 0.0103 which implies that a unit increase in life premium will bring about a 0.0103 unit increase in gross domestic product, the p-value of the t-statistics of 0.367 shows a positive insignificance at a level of 5% significance. The non-life premium has a coefficient of 0.0043 which indicates that a unit increase in non-life premium will bring about a 0.0043 unit increase in gross domestic product; with a p-value of 0.565 this indicates a positive insignificance at a level of 5% significance. The insurance investment variable has a coefficient of 0.0256 which implies that a unit increase in insurance investment will bring about a 0.0256 unit increase in gross domestic product, the p-value of the t-statistics is shown as 0.203 shows a positive significance at a level of 5% significance.

#### Random effect interpretation

The first independent variable which is the life premium shows a coefficient of 0.00737 which implies that a unit increase in life premium will cause a 0.00737 unit increase in gross domestic product, also with a p-value of 0.498 which shows that it is positively insignificant at a level of 5% significance. The non-life premium has a coefficient of -0.00161 which implies that a unit increase in non-life premium will cause a -0.00161 unit decrease in gross domestic product, the p-value of the t-statistics is 0.767 which shows that it is negatively insignificant. The insurance investment variables has a coefficient of 0.00444 which implies that a unit increase in insurance investment will bring about a 0.00444 unit increase in gross domestic product, the p-value of the t-statistics is 0.727 which implies that is positively insignificant at a level of 5% significance.

#### Hausman justification

Looking at the hausman test, this helps in deciding which model to select between the fixed effect and random effect models. The rule of the hausman test states that the null hypothesis is that the chosen model is random effect while the alternative hypothesis is that the fixed effect model is preferred. The result of the hausman test shows that the chi square ( $\text{prob} > \chi^2$ ) is 0.4756 which indicates that the alternative hypothesis is rejected while the null hypothesis is adopted, which means that the random effect model is adopted because the chi square is insignificant.

#### Findings

Using the random effect models, it shows that the life premium has a positive insignificance on economic growth. According to this study life premium has a positive influence on gross domestic product which partially conforms with the study carried out by Fashagba (2018) where the findings indicated that the connection between premium life insurance and financial development was negative based on the findings by Arena (2006) which revealed that life insurance is driven by high revenue societies. According to the survey conducted by the World Bank (2018), Nigeria was found to be among the lower-middle income societies, with this level of revenue the citizens are not encouraged to invest in life insurance.

Though it has a positive influence on economic growth because with this the citizens who are opportune to have this insurance tend to leave behind certain amount of money for their families to fend with thereby reducing their poverty rate, but it is insignificant because it has little penetration in Nigeria, even among the elites there is a high level of ignorance because people will rather save their money in banks than pay for insurance not to talk of illiterates who know nothing about life insurance.

Non-life insurance premium shows a negative insignificance on economic growth of which partially conforms to researches carried out by various authors such as Tong (2008), Umoren and Joseph (2016) and ward and Zurbruegg (2014) which revealed in their analysis that research carried out between general insurance premium and economic development was insignificant which may be attributed to the point that the degree of insurance penetration in Nigeria is at a fatal stage, according to the survey conducted by Proshare, it stated that insurance penetration is 0.3% which is the lowest compared to other African countries like South Africa (14.7%), Kenya (2.8%) and Angola (0.8%) and also attributed its low penetration to weak underwriting skills, cultural beliefs, premium leakages, slow pace of adoption.

Non-life insurance premium compared to economic development is also negative because the little number of citizens that buy these insurance policies tends to be disappointed when claim demands arise and insurance companies tend to turn them down; this leaves a negative impact on the policyholders which in turn affects economic growth because people tend to use the money saved to fix the affected party and also deteriorate properties affected.

Lastly, the insurance investment analysis compared to economic growth shows a positive insignificance, this result is partially in agreement with a research conducted by ozuomba (2013) which showed that insurance investment has an optimal consequence on economic development; this also supports the research of boon (2005) who found that capital formation and GDP development in the short and long runs. These imply that insurance investment tends to boost economic growth because it creates circulation of cash into other sectors of the economy which can in turn boost economic growth because when this cash circulates into areas like banks and government through treasury bills, also to the public through purchase of buildings and other investments, the economy tends to grow indirectly, but its insignificance is attributed to the fact that the insurance industry does not invest enough thereby making the little investments made to have little or no effect on economic growth.

#### **4. Conclusion**

In relation to the study, a number of recommendations have been coined both for the public, the insurance industry and the government. The general public should try to understand the basis of insurance and its meaningfulness to our daily lives; today's insurance companies have introduced a lot of to accommodate every type of citizen. Even products against loss of properties inside the house, and also they have made payment plans that can accommodate anyone, for instance some insurance companies make plans such as 100 naira payment plan daily which even youths can

make payment for. The government should make policies that will enforce insurance policies on its citizens whilst letting them know the benefits of these policies, the government should also improve investment policies that will be more flexible for the insurance industry.

The government should also review the capital adequacy of the insurance industry so as to retain only extremely capable insurance companies who will be able to pay up all their claim demand. The government should also create awareness about the insurance industry hammering on it as a financial mechanism. NAICOM should enforce policies that will enforce insurance companies to make claim settlement, they should also try to identify weak insurance companies and review them. NAICOM should collaborate with CBN to drive insurance through bancassurance. Insurance companies should try as much as possible to increase their investments in different sectors so as to increase their investment income which will enable them meet up with claims settlement and diversify into other sectors of the economy. The insurance companies should create awareness in ways that will be understandable both to elites and illiterates, a lot of times people don't understand how insurance industry operates, most people do not even know the types of insurance and what insurance policy that will be needed for them.

Insurance companies should also try to revive their lost reputation due to lack of payment of claims, because these tends to frustrate existing customers and discourage the potential ones.

### **5. Recommendations**

The variables which are life premium, non-life premium and insurance investment were highly important variables in establishing the significance in economic growth. The study carried out showed an insignificance with economic growth which implies that the insurance industry has little effect on the economic growth. This is in line with reality because looking at the insurance industry many people know little or nothing about the insurance sector. In conclusion, the insurance industry is an important sector in any economy because it is a financial mechanism suitable for anyone either individual or business. In highly developed countries the insurance sector is held in high esteem, this is a level that the Nigerian economy has the full potential to reach if the right actions are taken. Today insurance business has been increased at every level of the society. What types of business or industry and what types of field or there are body organs of human being can be insured. The crucial match of cricket or football is to be insured also. The beautiful eyes or hair of famous actress is to be insured as well as the famous singers insure his/her throat. The companies of communication insured their space satellite. This insinuates that the insurance industry has enough room for expansion, if only it can understand its environment and understand what people want to hear not just going according to the books or the mere principles, in advanced countries of today insurance is a huge deal to them because they have seen its usefulness to them, which is one of the major reasons for any business, "solving a problem".

In conclusion, the Nigerian insurance industry is one faced with a lot of problems both from the public and the government but with good policies and awareness the industry will grow to reach its full potentials.

### **Acknowledgements**

The authors wish to acknowledge the financial support offered by Covenant University in actualization of this research work for publication.

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