International Digital Organization for Scientific Research ISSN: 2550-7974
IDOSR JOURNAL OF ARTS AND MANAGEMENT 7(1): 14-27, 2022.

Evaluation of the effect of marine insurance density on real gross domestic product in Nigeria

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ABSTRACT

The effect of marine insurance density on real gross domestic product in Nigeria was evaluated. Secondary data was used in the study. Data were taken from Central Bank of Nigeria Statistical Bulletin and National Insurance Commission data publication of various years. The result shows that total marine insurance density had no significant effect on real gross domestic product in Nigeria. The result of hypothesis four test shows that marine insurance density had negligible effect on economic growth in Nigeria. Globally, insurance density was $409 in 2019. In conclusion, marine insurance density had no significant effect on real gross domestic product in Nigeria. This was based on p-value at 0.1392 being greater than 0.05.

Keywords: Marine, Insurance, density, on real gross domestic product in Nigeria

INTRODUCTION

Economic growth takes place in an environment of greater security, which allows for growing investment and innovation [1,2,3]. The insurance industry avails an economy with growing security [4,5,6,7]. Insurance companies indemnify the ones who suffer a loss and stabilize the financial position of individuals and firms with possibility of transfer of different kinds of risks to insurance companies [8]. Again, firms exposed to various risks of their liability, property, illness and disability of their employees and life of key employees, have the possibility of managing those risks by transfer to insurance companies [9,10,11]. This allows firms to concentrate their attention and resources on their core business which can lead to willingness and ability to take real investment which will help to generate higher level of economic growth [12]. Given this heavy reliance of all economic activities (e.g. manufacturing, shipping, aviation, medical, legal, accounting and banking services) on risk transfer, it is seen that insurance services play a key supporting role in economic growth [13]. With Nigeria being deeply import dependent, goods coming into the country need to be safeguarded. Marine insurance as a class of insurance is deeply involved in such economic activities. Marine insurance is a type of insurance that covers cargo losses or damage caused to ships, cargo vessels, terminals, and any transport in which goods are transferred or acquired between different points of origin and their final destination . Providing protection against transport-related losses, this voyage policy provides a haven for shipping companies and couriers

because it protects them from costly potential losses while transporting goods by water [7]. Marine insurance is the oldest form of insurance, the insurance market place, the giant Lloyds of London started in 1686, in a coffee shop of the same name, where cargo carriers, merchants and vessel owners used to accumulate to discuss current shipping affairs [8]. Marine insurance is necessarily concerned with overseas trade and it involves transportation from one place to another by ships. Now, this procedure of transshipment of goods from one place to another has its fair share of risks. That's why it is essential to secure these goods [9]. Besides, marine insurance is vital as it delivers protection against any loss/damage incurred to the ship and to the cargo, which the ship is transporting. Whether you own a yacht or ship for any commercial or any transportation purpose, marine cargo insurance policy will protect you from every marine-related risk.

Objective of the Study

The broad objective of the study is to evaluate the effect of marine insurance density on real gross domestic product in Nigeria.

Research Question

The following research question was formulated to guide the study:

What was the effect of marine insurance density on real gross domestic product in Nigeria?

Research Hypothesis

The following null hypothesis was formulated for this study:

H_{04}. Marine insurance density had no significant effect on real gross domestic product in Nigeria

REVIEW OF RELATED LITERATURE

Conceptual Review

Insurance

In theory, risk exposures should meet several conditions to be insurable in a private market. In reality, few risks meet these conditions exactly, but the further they diverge the less insurable they become. The four conditions for insurability are: Many independent and identically distributed exposure units; The premium should be economically feasible; Losses should be unintentional and accidental; and Losses should be easily determinable. Independence means that there is no correlation between an event causing a loss to one exposure and an event causing a loss to another [9]. Identically distributed means each exposure faces the same probability distribution of potential losses. The law of large numbers works most effectively in the pooling and diversification of risk exposures when they are independent and identically distributed. This condition is violated when a significant number of exposures could suffer losses because of one or a series of related events, such as a hurricane or a deadly epidemic. Insurers can use devices such as reinsurance or catastrophe bonds to cope with this problem, but there are practical limits to how much risk can be diversified through these instruments [5].

An economically feasible premium is sufficient to cover an insurer's cost of providing insurance (i.e., expected loss, necessary expenses and cost of capital), but still low enough to be attractive to potential insured's.

Economically feasible premiums are most achievable when the probability of loss is relatively low and insurers' loading for expenses and profit would not exceed the risk premium that an insured would be willing to pay. When the probability of loss reaches higher levels, the corresponding premium will approach or exceed the potential loss. In such a situation, the cost of insurance is so high that a person would be better off if he or she kept the money to pay for a loss that is very likely to occur or find other ways to avoid the loss [9]. The third condition for insurability is that losses should be unintentional and accidental. There are several reasons for this. One is that insuring intentional losses may give rise to moral hazard, a problem explained further below. When moral hazard is present, losses are more likely to occur. Also, from a social point of view, insuring intentional losses would encourage deliberate destruction of property or loss of life [10]. In addition, losses that occur naturally over time (e.g., the depreciation of an automobile) and are not accidental tend not to be insurable. Such losses are essentially certain and it would be more efficient to budget for them than to purchase insurance. The final condition is that losses should be easily determinable [13]. If it is impossible to determine whether a loss has occurred or its severity, then the insurer will have no objective information to determine if a claim should be paid or how much the payment should be. If determining a loss is difficult but not impossible, the cost of adjusting a claim may be so high that it is not possible to offer insurance at an economically feasible premium. [5], asserts that for a risk to be insurable, a number of prerequisites need to be in place:

1. The risk must be definable and financially measurable. Insurance provides financial compensation against a risk materialising or offers a benefit or service if that risk occurs. The risk must therefore be fully definable, in order to remove any dispute over whether the loss has occurred (and hence when a claim payment is due). It must also be possible to put a price on the cost of the loss, in order to determine the level of compensation required. For insurance against car theft, for example, determining when the event occurred and how much compensation is due, is relatively straightforward. For injuries suffered in an accident, the courts will often decide on the level of compensation. For life assurance, where the financial losses are less straightforward, the compensation is specified in advance.
2. The risk should be random and independent. It is not possible to insure against an event that will definitely occur, since it involves no uncertainty and therefore no transfer of risk takes place. The occurrence of the insured event should be unpredictable and happen purely by chance, or at least be outside the control of the beneficiary of the insurance, otherwise moral hazard could result. Definite events, such as damage caused by wear and tear or depreciation, and events that are caused voluntarily and intentionally by the insured or someone hired by the insured, usually cannot be insured. Life assurance works within this principle as, although death is certain, its timing is unknown [14].
3. The insured must have an insurable interest. There must be a recognisable relationship between the insured and

the risk. Typically, this "insurable interest" is established by ownership or direct relationship. For example, people have insurable interests in their own homes and vehicles, but not in those of their neighbours.

4. The insurer must be able to calculate a fair premium for the risk. The premium charged to the policyholder must make economic sense. On the one hand, the insurer must be able to charge a premium that is high enough to cover future claims on its pool of risks and its expenses, while still making a profit. On the other hand, the amount charged to insure an individual or entity must be a sum that the insured is willing to pay and must be substantially below that of the covered amount or it would not make sense to purchase the cover. This balance is best struck in an open, competitive private insurance market.

5. The likelihood of the risk must be calculable. In order to calculate a fair premium, the insurer must be able to calculate the possibility of the risk. This involves calculating both the average severity and the average frequency of similar risks with some degree of accuracy. To do this requires analysis of a reasonably large claims history for the particular event, based on the insurer's own experience, industry data or other sources [8].

6. There should be limited risk of catastrophically large losses. The financial impact of the loss should not be so large that the insurer could not hope to pay for the loss. For events that could result in significant losses, insurers can use techniques such as reinsurance to reduce their exposure. This is typically the case for insurance for natural catastrophes or airlines.

7. Coverage is generally only for indemnity. The payment made following the occurrence of an insured event only indemnifies the policyholder for the loss actually incurred; the policyholder cannot profit from the claim as this could change their behaviour to make the loss more likely.

METHODOLOGY

Research design

The research used *ex-post facto* research design. Ex post facto study or after-the-fact research is a category of research design in which the investigation starts after the fact has occurred without interference from the researcher [13]. This design is deemed appropriate considering that this study does not require the researchers' direct control over the independent variables because they have already led to effects which can no more be manipulated. The conclusions regarding the relationship between the variables need to be inferred without intervening or varying the independent or dependent variable [7].

Area of Study

Nigeria is the area of the study. A country colonized by the UK and gained its independence in 1960. The country is divided into thirty six states and a federal capital territory.

Sources of Data

Secondary data was used in the study. Data were taken from Central Bank of Nigeria Statistical Bulletin and National Insurance Commission data publication of various years.

Population of the Study

A population is the entire set of either persons, objects, events, organizations, countries or otherwise that you want to draw conclusions about [8]. There was no population drawn for the study as individual elements were not required in the study.

Determination of Sample Size

Since individual elements were not required in the study a sample size was not derived for the study. Rather, the aggregate data were employed for the study.

Model specification

The functional relation of the model was given as:

GDP = f(MIDEN) ...(i)

The model was specified as follows:

$GDP = \beta_0 + \beta_1 MIDEN + \mu$ ...(ii)

Where:

GDP = Gross Domestic Product

MIDEN = Marine Insurance Density

β_0, = Constant parameters

β_1 = Coefficient parameter of MIDEN

μ = Error term

Description of variables

Independent variables

Marine insurance premium: This refers to the total value of all payments generated under the marine class of insurance by the entire Nigerian insurance business in a given business year. Marine insurance claims: This refers to the total value of all settlements made as the marine class of insurance by the entire Nigerian insurance business in a given business year. Marine insurance penetration: This refers to the ratio of insurance policies bought to gross domestic product in Nigeria.Marine insurance density: This refers to the ratio of insurance policies bought to population of Nigerians.

Dependent variable

Real GDP: Real gross domestic product (GDP) is an inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year, expressed in base-year prices. Without real GDP, it could seem like a country is producing more when it's only that prices have gone up.

Method of Data analysis

Stationarity test was run to avoid having a spurious regression. This was done to determine what is the most appropriate technique for estimating the models in the study. The results of the tests show that at levels, four variables: premium, claims, penetration and density were stationary. On the other hand the variable real gross domestic product was stationary at first difference. The results show that the order of integration was not the same. There was a mixed order of integration after the stationarity test. Therefore, the variables were estimated estimated

using Autoregressive Distributive Lag model. Data analysis was at five percent level of significance. The decision rule was that where p-value of the independent variable is higher than the level of significance the null hypothesis will be upheld. On the other hand, where the p-value of the independent variable is lower than the level of significance the null hypothesis will be rejected and its alternativeaccepted.

A priori Expectations

An a priori expectation refers to an assumption that based on certain basic principles the outcome of a model equation will go in a given direction and magnitude.

Table 1 A priori expectation

Independent Variables	Expected relationship with the Dependent variable	Reason for expected relationship
Marine insurance premium	Positive (+)	The present economic performance of the country is not favourable and has made people more risk averse. Therefore more persons involved in international business are expected to take up new or renew old insurance marine insurance policies. The growing premium pool will provide more liquidity to the insurance industry for investment which enhances economic growth (Torbira and Ogbulu, 2014)
Marine insurance claims	Positive (+)	Indemnifying the ones who suffer a loss stabilizes their financial position of individuals and firms with possibility of allowing them to concentrate their attention and resources on their core business which can lead to willingness and ability to take real investment which will help to generate higher level of economic growth (Oke, 2012).

Marine insurance penetration	Positive (+)	The net result of well functioning insurance markets should be better pricing of risk, greater efficiency in the overall allocation of capital and mix of economic activities, and higher productivity (Brainard, 2008).
Marine insurance density	Negative (+)	High population does not translate easily to high demand. With a larger percentage of the population being dependants they have less capacity to buy insurance (Varella, 2021).

Source: Author's compilation, 2021

PRESENTATION AND ANALYSIS OF DATA

Data Presentation

Below is the time series data on marine insurance premium, marine insurance claims, marine insurance penetration, marine insurance density and real gross domestic product.

Table 2:Data on Explanatory and Dependent Variables

Year	Premium (Millions)	Claims (Millions)	Penetration (%)	Density (Thousand)	RGDP (Billions)
1985	12,220,000	100,000	8.17178E-05	14.62373	14,953,910,000,000
1986	34,740,000	11,400,000	0.000227983	40.50537	15,237,990,000,000
1987	95,090,000	3,260,000	0.000622972	107.9979	15,263,930,000,000
1988	103,520,000	30,150,000	0.000638407	114.5193	16,215,370,000,000
1989	149,500,000	110,050,000	0.000864428	161.1199	17,294,680,000,000
1990	188,580,000	37,340,000	0.000976813	198.0623	19,305,630,000,000
1991	213,210,000	58,030,000	0.001110523	218.3016	19,199,060,000,000
1992	363,480,000	81,210,000	0.001852581	362.8932	19,620,190,000,000
1993	566,600,000	119,480,000	0.002843237	551.6999	19,927,990,000,000
1994	10,703,490,000	132,370,000	0.053573381	10165.37	19,979,120,000,000

1995	9,083,420,000	184,390,000	0.044628953	8626.746	20,353,200,000,000
1996	2,771,950,000	191,780,000	0.013088868	2504.726	21,177,920,000,000
1997	1,786,400,000	106,090,000	0.008198595	1574.508	21,789,100,000,000
1998	1,624,010,000	129,480,000	0.007271837	1396.16	22,332,870,000,000
1999	2,349,660,000	1,068,930,000	0.010466467	1970.199	22,449,410,000,000
2000	3,103,370,000	440,830,000	0.013100867	2537.841	23,688,280,000,000
2001	3,997,070,000	790,650,000	0.015818991	3187.607	25,267,540,000,000
2002	4,269,540,000	900,880,000	0.014744053	3320.117	28,957,710,000,000
2003	7,219,710,000	1,240,570,000	0.022768323	5473.598	31,709,450,000,000
2004	7,959,760,000	1,361,420,000	0.022728826	5882.157	35,020,550,000,000
2005	10,983,380,000	1,266,220,000	0.029308591	7909.393	37,474,950,000,000
2006	10,493,410,000	10,493,410,000	0.026236477	7361.817	39,995,500,000,000
2007	10,757,810,000	1,904,230,000	0.025063388	7351.245	42,922,410,000,000
2008	16,510,250,000	3,185,000,000	0.035882082	10987.08	46,012,520,000,000
2009	17,191,140,000	4,556,600,000	0.034481518	11139.57	49,856,100,000,000
2010	21,264,620,000	2,965,170,000	0.038937447	13415.89	54,612,260,000,000
2011	22,558,840,000	2,889,580,000	0.039225234	13856.35	57,511,040,000,000
2012	16,636,390,000	5,204,590,000	0.027759754	9948.282	59,929,890,000,000
2013	9,561,030,000	4,046,650,000	0.015123732	5566.319	63,218,720,000,000
2014	12,987,830,000	3,999,010,000	0.019340715	7362.511	67,152,790,000,000
2015	16,582,310,000	7,015,320,000	0.024024002	9154.545	69,023,930,000,000
2016	16,515,760,000	6,879,160,000	0.024312467	8881.337	67,931,240,000,000
2017	16,916,210,000	5,570,080,000	0.024698449	8862.533	68,490,980,000,000
201	26,472,040,00	13,303,840,00	0.03792559	13514.78	69,799,940,000,0

8	0	0	1		00
2019	21,694,125,000	9,436,960,000	0.030389108	11218.74	71,387,830,000,000
2020	24,083,082,500	11370400000	0.03411497	12374.13	70,593,885,000,000

Source: CBN bulletin, NAICOM and World bank reports

In 1985 premium generated by the insurance industry through marine insurance business was N12,220,000 which at the beginning of the next decade had grown to N188,580,000. In 2000 marine premium was N3,103,370,000 and N21,264,620,000 in 2010. As at 2020 it was at N24,083,082,500. Claims settled in 1985 was N100,000 and N37,340,000 five years later. It grew to N440,830,000 in 2000, N2,965,170,000 in 2010 and N11,370,400,000 in 2020. Insurance penetration was at 0.000081718 percent in 1985. By 1990 it had grown to 0.000976813 percent. In the year 2000 further growth was recorded up to 0.013100867 percent. 2010 had 0.038937447 percent while it was 0.03411497 in 2020. Insurance density was N14.62 in 1985 and N198.0623 in 1990. By 2000 it rose to N2537.841, dropped to N13415.89 in 2010 and was at N12374.13 in 2020. Real gross domestic product from N14,953,910,000,000 in 1985 increased to N19,305,630,000,000 in 1990, N23,688,280,000,000 in 2000. From N54,612,260,000,000 in 2010 it increased to N70,593,885,000,000.

Descriptive Statistics

The descriptive statistics of the time series data was estimated and the outcome presented in table 3

Table 3 Descriptive statistics

	CLAI	DENS	DRGDP	LAGPENE	PREM
Mean	8.909581	3.496523	-0.000383	-1.975516	9.623017
Median	9.098065	3.817949	0.001636	-1.678475	9.969377
Maximum	10.12398	4.141649	0.031172	-1.271051	10.42279
Minimum	6.513218	2.033415	-0.050175	-3.642098	7.978135
Std. Dev.	0.909091	0.672919	0.014939	0.650455	0.766372
Skewness	-0.601859	-1.057587	-0.726793	-1.143252	-0.984565
Kurtosis	2.565450	2.724185	5.311526	3.000421	2.618091
Jarque-Bera	2.320176	6.445887	10.56275	7.406475	5.699710
Probability	0.313459	0.039838	0.005085	0.024644	0.057853
Sum	302.9258	118.8818	-0.013030	-67.16754	327.1826
Sum Sq. Dev.	27.27276	14.94307	0.007364	13.96205	19.38176
Observations	34	34	34	34	34

Source: Author's Eviews 10 output, 2021

Where
CLAI = Marine insurance claims settlement
DENS = Insurance density
DRGDP = Real gross domestic product

LAGPENE = Insurance penetration
PREM = Marine insurance premium

The mean of CLAI, DENS, DRGDP, LAGPENE and PREM were 8.909581, 3.496523, -0.000383, -1.975516 and 9.623017 respectively. The standard deviations were 0.909091, 0.672919, 0.014939, 0.672919 and 0.766372. For CLAI, DENS and PREM their standard deviations were lower than their respective mean. This shows that the variability of each variable was low. For DRGDP and LAGPENE their standard deviations were higher than their respective mean. This shows that the variability of each variable is high. The skewness estimate for each variable shows they are negatively skewed. This suggests that a relatively larger probability distribution of the variables means have fatter tails to the left of the distribution.

Diagonistic test

Stationarity test

It is necessary to determine the stationarity of the data used in the study. This is to prevent the result of the analysis from being biased. In order to guard against a biased result a stationarity test was conducted. This was done using the Phillips Perron method of unit root test.

Table 4.Result of Stationarity test

Variable	Phillips-Perron test statistic	Test critical value @ 5%	Order of Integration	P-value
CLAIMS	-3.969255	-2.948404	1(0)	0.0042
DENSITY	-4.652762	-2.948404	1(0)	0.0007
PENETRATION	-5.117710	-2.948404	1(0)	0.0002
PREMIUM	-4.586200	-2.948404	1(0)	0.0008
RGDP	-9.062557	-2.954021	1(1)	0.0000

Source: Author's Eview 10 output, 2021

Table 4 reveals that all the time series were stationary at levels except RGDP. This is evidenced by its Phillips-Perron test statistic at levels being less than or more negative their respective Critical values @ 5%. This is corroborated by their respective p-values being lower than 0.05 (the level of significance) which shows statistical significance. On the other hand, RGDP became stationary at first difference. It was at first difference that its Phillips-Perron test statistic became less than its Critical value @ 5%.

Heteroskedasticity Test

A basic regression analysis assumption is that the variance of the time series is the same for all observations. Through a heteroskedasticity test this assumption is determined.

Heteroskedasticity Test for Hypothesis one

Table 5 Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	2.431056	Prob. F(4,26)	0.0730
Obs*R-squared	8.438279	Prob. Chi-Square(4)	0.0768
Scaled explained SS	10.00808	Prob. Chi-Square(4)	0.0403

Source: Author's Eviews 10 output, 2021

Table 5 shows that F-statistics and Obs*R-squared have a probability value of 0.0730 and 0.0768 which are all greater than 0.0.05. This indicates that in the test of hypothesis two regression results, there is no heteroskedasticity.

Serial Correlation Test

To check if the error terms in the data used in this study transfer or not from one year into another year, a serial correlation test was carried out. This test was conducted using Breusch-Godfrey method.

Serial Correlation Test for Hypothesis 4

Table 6 Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.231141	Prob. F(2,24)	0.7954
Obs*R-squared	0.585830	Prob. Chi-Square(2)	0.7461

Source: Author's Eviews 10 Output, 2021

The probability value of F-statistic and Obs*R-squared is 0.7954 and 0.7461 respectively. Both are greater than 0.05 (the level of significance). Therefore, we conclude that there is no presence of serial correlation or autocorrelation in the regression analysis of hypothesis four.

Test of Hypothesis one

Step One: Statement of the hypothesis in both null and alternate forms

H_{04}: Marine insurance density had no significant effect on real gross domestic product in Nigeria

H_{A4}: Marine insurance density had significant effect on real gross domestic product in Nigeria

Step Two: Statement of the decision criteria

Accept the null hypothesis if p-value is greater than 5% or 0.05, otherwise reject the null hypothesis and accept the alternate accordingly.

Step Three: Presentation of the result for the hypothesis test

Table 6 Regression Result for Test of Hypothesis one
Dependent Variable: DRGDP
Method: ARDL
Date: 07/09/21 Time: 13:20
Sample (adjusted): 6 36
Included observations: 31 after adjustments
Maximum dependent lags: 4 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (4 lags, automatic):
Fixed regressors: DENS C
Number of models evalulated: 4
Selected Model: ARDL(3)
Note: final equation sample is larger than selection sample

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
DRGDP(-1)	-0.313728	0.182010	-1.723685	0.0966
DRGDP(-2)	-0.104236	0.184433	-0.565168	0.5768
DRGDP(-3)	-0.390489	0.183332	-2.129949	0.0428
DENS	-0.002947	0.005040	-0.584729	0.5638
C	0.009444	0.018474	0.511205	0.6135

R-squared	0.243763	Mean dependent var	-0.001059
Adjusted R-squared	0.127419	S.D. dependent var	0.014860
S.E. of regression	0.013881	Akaike info criterion	-5.569857
Sum squared resid	0.005010	Schwarz criterion	-5.338569
Log likelihood	91.33279	Hannan-Quinn criter.	-5.494463
F-statistic	2.095187	Durbin-Watson stat	2.036886
Prob(F-statistic)	0.110301		

*Note: p-values and any subsequent tests do not account for model selection.

Source: Author's Eviews 9 Output, 2020.

Step Four: Decision.

Table 6 shows the probability of marine insurance density is 0.5638 and is greater than 0.05 the level of significance. Thus, we accept the null hypothesis and concluded that marine insurance density had no significant effect on real gross domestic product in Nigeria. From Table 6 it is seen that marine insurance density has a regression coefficient of -0.002947. This is a positive coefficient. It shows that there is an increasing interaction

between marine insurance density and real gross domestic product in Nigeria. That is to say for any unit increase in marine insurance density there will be 0.007417 basis points increase in real gross domestic product in Nigeria. The Adjusted Co-efficient of Determination (R^2) at 0.127419 shows that in hypothesis four model the independent variable (marine insurance density) can only explain 99.6714 percent of any variation seen in real gross domestic product in Nigeria. The remaining 12.7419 percent can be attributed to other variables not used in the model.

Discussion of Findings

The result of multivariate analysis shows that p-value of marine insurance density at 0.1392 was greater than 0.05 (the level of significance). This shows that total marine insurance density had no significant effect on real gross domestic product in Nigeria. The result of hypothesis four test shows that marine insurance density had negligible effect on economic growth in Nigeria. Globally, insurance density was $409 in 2019. Expressed in today's exchange rate Nigeria's insurance density of N11218.74 is at $27.30. This may be attributed to the rate of population growth in the country. The country's current population is estimated at 206 million, which is not surprising considering the growth rate and the 198-million figure arrived at about two years ago [7]. One of the concerns is that while population is ordinarily an asset for a country in terms of political and socio-economic development, the reality in the country is that much of the people fall into the bracket of poverty-stricken people of the world. That makes the asset to become a liability. Increase in population has been a growing concern throughout the world and a challenge to country's economic development, rapid population growth tends to depress savings per capital income and retards growth and development of a particular country [9]. Findings of hypothesis one test disagreed with [6] who found that insurance growth had a positive effect on the economic development of the coastal area. It differed also with [9] whose result indicated that there exists a long run equilibrium association between insurance sector development and economic growth.

CONCLUSION

The relevance of insurance to an economy has been established in lots of empirical studies undertaken in various countries Nigeria included. As an import dependent country the Nigerian economy is abuzz with lots of foreign goods and services. Marine insurance density had no significant effect on real gross domestic product in Nigeria. This was based on p-value at 0.1392 being greater than 0.05.

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