Impact of Insurance on Economic Growth In Nigeria

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ABSTRACT: *This study examines the "Impact of Insurance on Economic Growth In Nigeria". To achieve this, models were formulated and data for the period 1998-2007 were collated while the co-integration and Error Correction model were employed for analysis. The findings towed the direction of the alternate hypotheses which state that; there is a significant relationship between insurance premium and economic growth. Based on the study, it is recommended that policy efforts should be directed by government at growing the insurance industry in the country; and through such means enhances investment as well as production and employment creation.*

I.   INTRODUCTION

The insurance industry is a highly specialized industry that gives greater security to the fortunes of common people and among the whole society. It is one of the financial institutions in Nigeria today that aid economic development and growth. Egeria (1996:5) describes insurance as handmade of commerce which plays a vital role in the going concern of humans as an economic animal. Chikeleze and Echekoba (2008:186), defined insurance as a contract whereby one party, called the insurer, in return for a consideration, called the premium, undertakes to pay the other party, called the insured a sum of money or its equivalent in kind upon the happening of specified event that is contrary to the interest of the insured.

The modern insurance business was introduced into Nigeria in the late 20th century by the British merchant, who established trading posts on the west coast of Africa. Before the Advent of the European to Nigeria, organizations similar in purpose to insurance company were in existence known as traditional social insurance scheme. They include the Isusu, Social clubs, Age grade, etc, According to Okonkwo (1998:6), the first insurance company to register its presence in Nigeria was Royal Exchange Assurance with its office in Lagos in 1921. The enactment of workman compensation ordinance in 1942 and the Road traffic Act of 1945 both contributed to the meaningful takeoff of insurance industry in Nigeria. The need for control and timely intervention of government led to the formation of the National Insurance Corporation of Nigeria (NICON). In 1986, because of the Structural Adjustment Programme (SAP) brought about the emergence and proliferation of financial institution especially Deposit taking institution and insurance companies. Insurance capital base was raised from ₦1-₦2million then. Fall out from this event was that only 57 out of 152 insurance companies qualified for registration. This was coupled with tighter control over the industry.

Insurance represents a promise of future compensation relating to specific losses in exchange for periodic payments. Insurance are similar to banks and capital markets as they solve the need of business units and private households in financial intermediation. The only way out is to reposition the organization and business to meet with the demand of the period, create more awareness about the industry, training and retraining of staff, minimization of the wastages and maximization of gains in the interest of the economy.

Insurance is bought in order to hedge the possible risks of the future which may or may not take place. This is a mode of financially insuring that if such an incident happens then the lost does not affect the present well-being of the person or the property insured. Thus through insurance a person buys security and protection. One of the important outcomes of the consolidation and recapitalization in this sector was the recertification of 49 companies as against over 100 companies that were in existence in 2005. However, in spite of the reforms, the insurance sector is still faced with daunting challenges, which must be addressed to galvanize the economy.

The problem of this work is therefore summarized as follows:
1.   To what extent has insurance investments facilitated economic development in Nigeria?

The objective of this study was deduced from the problem which necessitates this work.
A strong and competitive insurance industry is a compelling in operatives for Nigeria's economic growth, and the growth of this sector was low effectively the insurers are able to come up with designs suitable to our context and how effectively they are able to change the perception of Nigerians and make them aware of the insurable risks.

For the state of clarity objectives of this study could be summarized as follows:
To determine the role of insurance investments on growth of Nigeria Economy.
  The research question therefore
  To what extent has insurance premium enhance economic growth in Nigeria?

Hypothesis
  The hypothesis of this study is stated in the null form.
  HO1: There is no significance relationship between insurance premium and economic growth.
At the end of this study, the study will ascertain and reveal how insurance investments have facilitated economic development in Nigeria, how insurance premium has enhanced the economic development of Nigeria and the relationship between insurance reforms and growth of the insurance industry.

  Also, this research work will enable the pioneers in the insurance industry, having outlined the factors or problems militating against the performance of insurance sector, to articulate policies and strategies that will enhance the overall growth and development of industry so as to positively impact on the economy with regards to vision 2020.

  Finally, this study will further provide students and researchers on the basic information needed in carrying any related research.

II. LITERATURE REVIEW
  INSURRANCE: A promise of compensation for specific potential future losses in exchange for a periodic payment. Insurance is designed to protect the financial well-being of an individual, company or other entity in the case of unexpected loss. Some forms of insurance are required by law, while others are optional. Agreeing to the terms of an insurance policy creates a contract between the insured and the insurer. In exchange for payments from the insured (called premiums), the insurer agrees to pay the policy holder a sum of money upon the occurrence of a specific event. In most cases, the policy holder pays part of the loss (called the deductible), and the insurer pays the rest. Examples include car insurance, health insurance, disability insurance, life insurance, and business insurance.

Types of Insurance
  MICRO-INSURANCE The contribution of insurance to an economy's growth and efficiency is not the only entry point into its role in development. The contribution of insurance to poverty alleviation and the welfare of the poor is also potentially of considerable importance, although the quantitative evidence on this point is not on very firm grounding. Nonetheless, case studies and other qualitative evidence make a persuasive case that the potential social value of so-called micro-insurance provision to poor households and small-scale entrepreneurs warrants a great deal more experimentation with business models and products to develop scale able approaches that combine commercial and philanthropic elements. As noted above, patterns of insurance coverage suggest a positive correlation with income – at least up to a point where the value of insurance begins to diminish relative to the value of overall household assets. But this does not tell us anything about the potential social value of insurance provision at lower levels of income – only that poor consumers either do not or cannot purchase insurance at currently prevailing prices and availability. Moreover, insurance market development faces many special informational challenges that have been extensively documented in economic research even in wealthier countries. Put simply, insurance is likely to be relatively more expensive – even prohibitively so – for low income households and small-scale entrepreneurs because of the high informational problems and transactions costs relative to the size of the risk to be insured. As a result, most types of insurance are simply not available to the vast majority of the world's poorer citizens.

  In the absence of risk pooling mechanisms, plunges in incomes due to death, disability, and adverse agricultural outcomes often translate into substantial decreases in consumption and investment that can permanently set back a poor family's livelihoods and prospects. When drought or floods lead to low agricultural yields, critical health interventions may be delayed,

  education of younger members of a household put on hold indefinitely, and
land, livestock or equipment permanently forfeited. Due to the catastrophic consequence of such losses, there is extensive evidence that in the absence of formal insurance poor households and communities attempt to 'self-insure' through a combination of building assets and diversifying sources of income. The result most likely is investment in a set of lower risk but also lower return activities – and even this degree of self-insurance is highly incomplete. There are also a variety of mechanisms that have emerged at the community level, such as

community pooling of informal insurance contributions to cover burial costs. Community-based insurance mechanisms surmount the problems of transactions costs and lack of legally enforceable contracts through personal relationships and piggybacking on traditional small-scale financial collection mechanisms, similar to the early stages of micro-credit. However, they offer only feeble protection in the face of community-wide, covariate shocks, since they do not typically pool risk across broader populations and are limited in the types of products they can provide. For micro entrepreneurs and farmers, the net result can be a significant drag on overall economic performance as they choose to invest in activities that might offer the best risk-return profile from an individual point of view but are suboptimal from an economy-wide point of view where a higher returning but riskier set of investments might lead to better aggregate outcomes.

High transactions costs are the main impediment standing in the way of a systematic shift from informal to formal mechanisms for managing and pooling risk for poorer households and small entrepreneurs. As such, the emerging field of micro-insurance faces many of the same challenges faced by micro-credit two decades ago in developing creative mechanisms for reducing or subsidizing transactions costs. Indeed, micro-credit institutions are among the first to venture into micro-insurance products, and their most popular initial insurance product offering was 'credit-life' insurance to pay off any debts associated with outstanding micro-credit loans in the event of death. As this field expands, it might follow a trajectory similar to that of micro-finance, perhaps starting with NGO providers funded on a philanthropic basis, but rapidly expanding to include commercial partners as financial intermediaries as scale able business models emerge. In parallel, in some countries the public sector is taking a greater interest in the provision of social insurance to poorer populations – through subsidized public insurance schemes for health, natural disasters, or weather-related crop insurance. Government mandates for compulsory insurance also expand the covered population although the difficulty of achieving risk-based pricing can lead to market distortions.

Household Insurance:
Micro-finance providers and other community-based financial intermediaries have begun to diversify into insurance products. In Uganda, 2 million people have purchased life insurance bundled with savings and micro-credit. Burial insurance is growing rapidly in other areas, and there are some experiments with property insurance such as for livestock and dwellings.

Natural Disasters, Weather, and Crop Insurance
There should be enormous potential for natural disaster and weather insurance to improve the performance of lower income economies, which tend to be more vulnerable to high volatility in incomes due to commodity price fluctuations and natural disasters due to poor building codes and infrastructure. Current investments in new products and innovations in weather and natural disaster insurance should be followed closely, as it is anticipated that climate change will exacerbate the incidence of weather patterns and natural disasters in many poor areas.

In recent years, the World Bank and other donors have been involved in experiments in countries such as Turkey and Mexico that provide earthquake risk insurance financed through a combination of reinsurance and the capital markets. In areas of Asia and Africa, there is growing interest in weather derivatives to insure against weather-associated agricultural losses.

These are designed to sidestep the traditional incentive (moral hazard) problems associated with crop insurance by using independent measurements of weather outcomes such as rainfall rather than crop yields.

Health Insurance
As with the wealthier economies, the development of health insurance markets in developing economies depends on the composition of health delivery providers – whether private or public – and the government's involvement in health insurance provision. However, there is a

strong tendency in poorer economies for households to bear responsibility for paying a much higher proportion of overall health costs out of pocket than in richer economies, which leads to underinvestment in health services (particularly on the preventive side) and vulnerability to health related consumption shocks. Thus, a strong case can be made for improving health outcomes in poor countries through a varied combination of public and private insurance provision depending on the institutional setting. Indeed, countries such as Mexico and Colombia have undertaken interesting reforms in this area in recent years, and this is likely to be an area of strong growth.

Small-Scale Entrepreneurs
The economic contribution of small enterprises to middle- and high-income Economies are well-known. However, in many poor economies, start-ups and small-scale enterprise fall short of their potential due to a variety of barriers, including access to capital. As attention to these barriers grows, it is critical to put insurance high on the list. While the risk appetite of large corporations can be debated, small scale entrepreneurs whose household wealth is tied up in their business enterprises are undoubtedly preoccupied with managing risk. In the absence of risk management tools provided by formal insurance, there will be a tendency to under invest in higher risk, higher return activities, thus diminishing the potential contribution of the critical small and medium sized enterprise sector to employment, investment, and growth overall. In sum, extending accessible insurance products to poor households and small scale entrepreneurs should be a core part of the agenda of democratizing access to financial assets. When successful programs are taken to scale, it will not only add measurably to social welfare but also hold the promise of generating a more productive and higher growth mix of activities and investments – with a payoff perhaps greater than micro-credit.

Nature of Insurance in Nigeria
The insurance industry exists in many natures but is typically categorized by ownership. There are mainly two common natures known Aliyu (2000) they are:
a)   The mutual insurance and
b)   The stock insurance industry

1.2.1   Mutual Insurance Company-
This is actually a type of co-operative, it is owned by its policy holders. This mutual company earns no profit for its owners. It is chartered by the state and governed by a Board of Directors elected by the policy holders. It is solely operated for the benefits of its members (Okonkwo 1999).

As a non-profit organization, any surplus funds remaining after operating expenses, payment of claims and establishments of necessary reserves are returned to the policy holders in the form to dividends or premium reductions. These mutual insurance companies are founded chiefly in the life insurance field. Although they accounted for slightly less than 10 percent of the approximately 8 life insurance companies. They sell more than half of all the life insurance in force. Therefore, many of the major life insurance companies are mutual.

The Role and Contributions of Insurance to Economic Growth
Insurance serves a number of valuable economic functions that are largely distinct from other types of financial intermediaries. In order to highlight specifically the unique attributes of insurance, it is worth focusing on those services that are not provided by other financial services providers, excluding for instance the contractual savings features of whole or universal life products.

The indemnification and risk pooling properties of insurance facilitate commercial transactions and the provision of credit by mitigating losses as well as the measurement and management of non diversifiable risk more generally. Typically insurance contracts involve small periodic payments in return for protection against uncertain, but potentially severe losses.

Among other things, this income smoothing effect helps to avoid excessive and costly bankruptcies and facilitates lending to businesses. Most fundamentally, the availability of insurance enables risk averse individuals and entrepreneurs to undertake higher risk, higher return activities than they would do in the absence of insurance, promoting higher productivity and growth. The management of risk is a fundamental aspect of entrepreneurial activity.

Entrepreneurs manage the risk of accidental loss by weighing the costs and benefits of each alternative. In a structured risk

Management process, this involves:
1)   Identifying the exposures to accidental loss;
2)   Evaluating alternative techniques for treating each loss exposure;
3)   Choosing the best alternative; and
4)   Monitoring the results to refine the choices. Those who do not apply a structured process still make decisions about risk, although sometimes by

Default rather than design. The scope of an economy's insurance market affects both the range of available alternatives and the quality of information to support decisions.

For example, a manufacturer might produce only for the local market, forgoing more lucrative opportunities in distant markets in order to avoid the risk of losing goods in shipment. Transport insurance can mitigate this loss exposure and enable the manufacturer to expand. Similarly, to avoid

The risk of total loss from drought, a commercial farmer may keep half of his seed in reserve. Crop insurance can protect against drought and permit all of the seed to be planted for a smaller premium than the cost of holding half in reserve. Thus public policies that encourage insurance operations improve the economy's productivity by broadening the range of investments. Insurers also contribute specialized expertise in the identification and measurement of risk. This expertise enables them to accept carefully specified risks at lower prices than non-specialists. They also have an incentive to collect and analyze information about loss exposures, since the more precisely they measure the cost of risk, the more they can expand. As a result, the insurance market generates price signals to the entire economy, helping to allocate resources to more productive uses. Insurers also have an incentive to control losses, which is a significant social benefit.

By offering discounts for seat belts, smoke detectors, or other measures that reduce the frequency or severity of losses, they lower their eventual claims costs, in the process saving lives and reducing injuries.
On the investment side, due to the long term nature of their liabilities, sizeable reserves, and predictable premiums, life insurance providers can serve an important function as institutional investors providing capital to infrastructure and other long term investments as well as professional oversight to these investments.
Of course, these benefits are fully realized only in markets where insurance providers invest a substantial portion of their portfolios domestically.

Problems of Insurance in Nigeria
In the face of bearing risk for the insured the insurance companies are faced with numerous problems and according to NDIC Quarterly (2006) these are as follow;

Liquidity Problem:
The economic effect of restructuring the ailing economy posed a serious liquidity problem to the insurance industry and institutions. From the economic problem, there are contractions of business due to reduction in investment as a result of poor saving. This manifest on the rate of demand for possible claim settlement as against the usual registering of new insurance business proposal the effect of this lead to reduction of income as there should be shortage of funds. This problem arises when the state of fund cannot meet up with the pressing financial needs. When things were up right, fund accrued from life and non-life business make the insurance industry to experience economic pinch as virtually all the insurable interest get above the reach of the insured with the existence of this problem, the insurance industry cannot meet their social and economic obligations and it implied that the direct participation to reduce the effect on depressed economy would not be realistically achieved.

Under Insurance Property:
As a result of high rate of commodities according to Erhabor (2007). The sum insured in respect of properties under insurance policies do not reflect the correct or true market value of such properties. To avoid under insurance, the country re-insurance corporation has advised to revalue their insured properties to streamline the current market price. In effect, enough the change in the economy and the need to structure it for better results. The customers need be informed of possible advantage if he/she revalue his/her policy to reflect the line value of property in the market.

Reduction in Marine Insurance Premium Income:
In days of economic boom, marine business recorded good premium generation when compared to what exist today s opined by Okonkwo (2000) marine insurance as a part of transport insurance policy is among the earliest insurance business that attracted huge amount and mutual development. Since the introduction of second tier foreign exchange market as a major structural Adjustment programme (SAP) by value of premium earned by marine insurers, this posed a problem in the sense that the revenue generated in this aim of insurance business failed considerably unless there is a concentrated attempt to restructure the economy, the marine insurance business will continuously attract low business undertaking.

Government Instability:

Accord to NDIC (2001), No meaningful investment can be made in an area where there is constant crisis or continual changes of government regulations. It is understandably true that in the process of picking leaders to succeed their predecessor, wrong leader may emerge and this means that the already mapped out programme may be reserved to suit the government in power in pursuance of the stated objectives, a counter government regulations and laws may originated thereby fostering the aim and aspiration of the insurance industry example, the structural Adjustment programme (SAP) paralyzed most of the business activities including that of insurance industry.

Lack Of Corporation Within the Industry:

the lack of corporation or disunity among the groups of insurers may breed a problem and disharmony example, the multiple associations under this umbrella of insurance industry via-the Nigeria Insurance Associations. The insurance institute of Nigeria and the Accident Assurance committee to mention but a few portray the industry as a dividend house as they duplicate the functions of the industry.

Government Control And Regulation:

The NDIC Quarterly (2004) Vol3 is of the view that the several ways through which government exercises control of insurance business constitutes a problem. The government enactment such as the insurance decree of 1976 and the current government amendment of insurance requires insurance companies to keep large reserve in meeting their obligation. The insurance companies Act 1961, the National Insurance Corporation of Nigeria Decree of 1st July 1968 were promulgated between 1960 to 1970 to regulate and control the excess of insurance business. Beside, the insurance law now requires the insurer to be financially viable and professionally qualified before entering or registering to carryout genuine insurance business. Nevertheless, the government worsened the liquidity position of the most insurance companies thereby reducing their capacity for effective operations.

Inflation:

In 1986, an urgent call for restructuring the economic was made as the Nigeria economy was witnessing persistent inflationary trend and general recession in the Cross Domestic product according to Nwankwo (1999) the inflation made the bank based scheme to be administered by the central bank as its possess the power to manage the country's foreign exchange resource in keeping with the needs of the country's economy. In fact in the insurance business, there was a great deal of buying and selling and this was affected by the inflationary trends that hamper the exchange of money both locally and internationally to pay insurance and re-insurance premium and investment.

III. RESEARCH METHODOLOGY

Research methodology is the plan, strategy and structure of investigation, concerned with how to obtain answers to question in consolidation of the nature and the purpose which it intended to achieve as well as the anticipated result, Kerlinger (1997). This chapter aimed at discussing the general research strategies used in this study. This research is a quantitative study aimed at investigating the impact of insurance on economic growth, in Nigeria. The study is purely quantitative and relies on secondary data. The choice of the data depends largely on the suitability and reliability in the course of this research work.

This chapter deals with the research design, nature and data sources, population and sample size, data analysis and techniques and validity of data instrument.

Research design is a framework for controlling the collection of data. It ensures that the required data are accurately collected. This study is fundamentally designed to find out if investment in insurance and insurance premium impacts on the growth of the Nigerian economy with references to the 71 insurance companies in Nigeria. The structural framework of this study is based on ex-post facto research design.

The research work therefore, is designed in a descriptive form. This is to explain to readers how the research was accomplished, that is, what the data consists of and how data were collected, organized and analysed. (Asika, 2006)

The ex-post factor design type will be used in this research work to analyse secondary data because there is no experiment involved, but rather is designed to test an event that has already taken place. Therefore, it deals with historical facts about insurance company effect on economic growth.

Secondary data in time series will be used in this work. The data machinery adopted for secondary data will be the published annual report of National Insurance commission (NAICOM) and the Central Bank of Nigeria (CBN) statistical bulletin for the relevant years sampled for analysis.

A population is the totality of items which the researcher is interested in. it is the universe of items under study (cookey, 1998). The population of this research will be the whole insurance company in Nigeria. The sample size will be the 71 insurance companies in Nigeria.

Mean deviation or arithmetical average this is obtained by adding the scores for all the subjects together and dividing this total by the number of subjects. It is represented by the symbol $\overline{X}$, derived using the formula

$$\overline{X} = \frac{\sum x}{N} = \quad \overline{X} = \frac{\text{sum of all the score values (x)}}{\text{Number of score values (x)}}$$

Multiple Regression analysis

It is a statistical techniques used to explain the nature of relationship between two variables X and Y, so that given an information about one variable, the other variable can be mathematically estimated. Regression with two explanatory variables is usually run in the computer because of its complexity. Alternatively, a formula in which the variables are expressed as deviations from their respective means can be usedl.

If $x = x - \overline{X} : \quad y = y - \bar{y}$

$$\hat{b_1} = \frac{(\sum x_1 y)(\sum x_2)_2 - (\sum x_2 y)(\sum x_{1x_2})}{(\sum x_1)_2 (\sum x_2)_2 - (\sum x_1 x_2)_2}$$

$$\hat{b_2} = \frac{\sum x_2 y (\sum x_1)_2 - (\sum x_1 y)(\sum x_{1x_2})}{(\sum x_1)_2 (\sum x_2)_2 - (\sum x_1 x_2)_2}$$

$$\hat{b_0} = \bar{y} - \hat{b_1} x_1 - \hat{b_2} x_2$$

Y=bO+b1X1+b2X2

$\hat{b_0}, \hat{b_1}, \hat{b_2}$ = regression parameters or coefficient

x_1 = independent variable

X_2 = independent variable

y = dependent variable

Formula for the coefficient of determination is

$$R^2 = \frac{\hat{b_1} \sum x_1 \ y + \hat{b_2} \sum x_2 \ y}{\sum y^2}$$

It is interpreted as the proportion of the variance in the dependent variable that is predictable from the independent variable. Its decision rule is +1 or -1.

- The coefficient of determination ranges from 0 to 1.
- An R^2 of 0 means that the dependent variable cannot be predicted from the independent variable.
- An R^2 of 1 means the dependent variable can be predicted without error from the independent variable.
- An R^2 between 0 and 1 indicates the extent to which the dependent variable is predictable. An R^2 of 0.10 means that 10 percent of the variance in *Y* is predictable from *X*; an R^2 of 0.20 means that 20 percent is predictable; and so on. Clearly, if *r* is near 1 or -1, the deviations from the trend line must be "small". Thus

if *r* is near 1 or -1, there must be relatively small deviations from the line.

The data obtained will be subjected to statistical analysis using both descriptive and inferential statistics. The descriptive tools for this analysis will be the simple percentage, arithmetic mean while the inferential statistics will be Regression analysis.

In regression of models (an already existing relationship or concept which the researcher wants to base her study on) with two explanatory variables, the variables used to predict the variables of interest is called the independent or explanatory variable and the variable we are trying to predict is called the dependent or explained variable. Factors used as explanatory variables for the determination of investment in insurance, insurance premium and economic growth are outlined and explained as follows.
Dependent variable;

1) Gross domestic products-The total market value of all final goods and services produced in a country in a given year, equal to total consumer investment and government spending, plus the value of exports, minus the value of imports.
2) Independent variables;
3) Investment in insurance – this consist of all investment carried out by the insurance companies in government securities, stock and bonds, real estate and mortgage, policy and other loans, cash in hand and deposits and bills of exchange.
4) Insurance premium – these are all the premium paid by the 71 insurance companies in Nigeria.
5) Decision rule

For analyzing secondary data, it is interpreted as the proportion of the variance in the dependent variable that is predictable from the independent variable. Its decision rule is +1 or -1.

The instrument was subjected to both face and content validity through three experts; two are chartered bankers from Anambra State niversity (ANSU) Uli (who is currently supervising this work) and Nnamdi Azikiwe University Awka respectively, and the other a computer analyst from BlueBen consult Uli.

The experts were presented with the objectives of the study, research hypotheses, and data from the CBN statistical bullentin and NAICOM annual report. They were asked to offer their opinion on the face and content validity of the instrument. They made suggestions and gave opinions which would be of great help in the analysis.

IV. ANALYSIS AND PRESENTATION OF DATA

Data presentation
Data on GDP and Investments.

| year	Y=Real GDP	X1=Inv	X2=Aipp
1998	310890.1	15656.88	11688251
1999	312183.5	21583.46	14597280
2000	329178.7	25192.64	22531400
2001	356994.3	32257.27	28981290
2002	433203.5	36940.87	37765890
2003	477533	25192.63	43441810
2004	527576	22678.8	50100830
2005	561931.4	121844.2	67465560
2006	595821.6	216359.9	81583750
2007	634251.1	329247.3	89104890

Source: CBN Statistical Bulletin and NAICOM annual report
Edition, December, 2007-2008.

Qualitative analysis
A time series analysis usually starts with a simple plot of the observations against time. The time plot is as in Figures 1, 2 and 3. The time plot was achieved through the use of Microsoft excel software. The time plot in Figures 1 revealed that investment in insurance experienced a linear rise from 1998 to2002, when it started declining between 2003 and 2004 total investment in Nigeria came to 0% before it started to rise again till 2007.
 data and plot showing investments by insurance companies in years

Year	investment
1998	15656.88
1999	21583.46
2000	25192.64
2001	32257.27
2002	36940.87
2003	25192.63
2004	22678.8
2005	121844.2
2006	216359.9
2007	329247.3
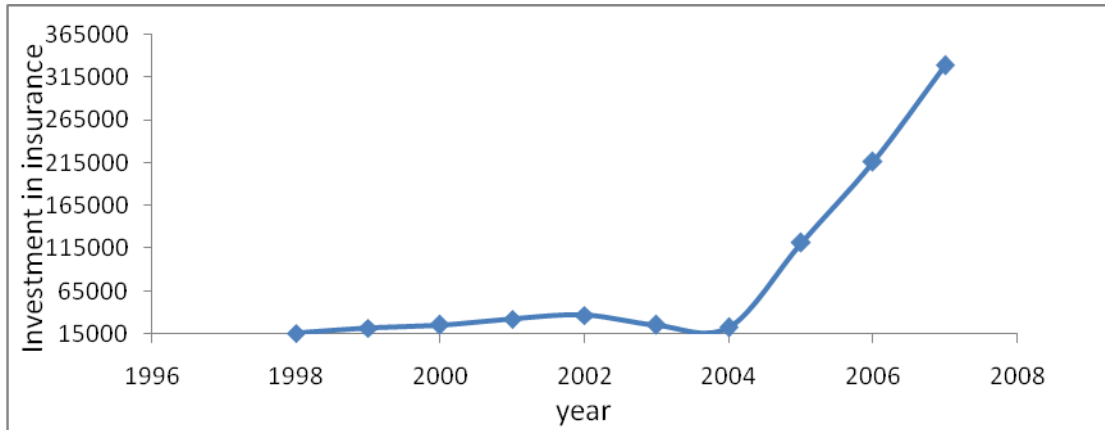
Insurance premiums versus year

      The time series plot for insurance premium reveals a linear rise between 1998 and 2003, there was a slight fall in 2003 to 2004, and then premium rose more linearly up till 2007.

Data and plot showing all insurance premium paid by insurance companies in years

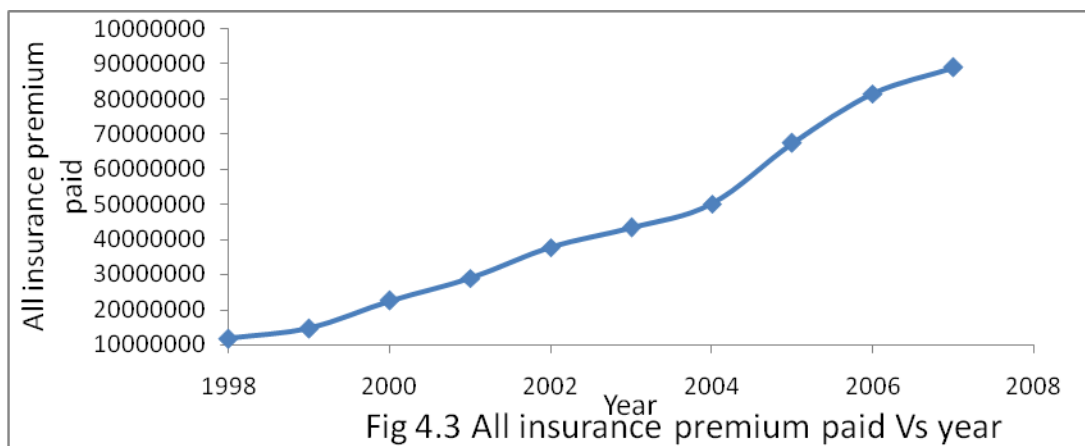| Year	AIPP
1998	11688251
1999	14597280
2000	22531400
2001	28981290
2002	37765890
2003	43441810
2004	50100830
2005	67465560
2006	81583750
2007	89104890

Fig 4.3 All insurance premium paid Vs year

Real gross domestic products versus year

The time series for real gross domestic products (economic growth) reveals an exponential rise from 1998 to 2002 when it started to rise linearly until 2007.

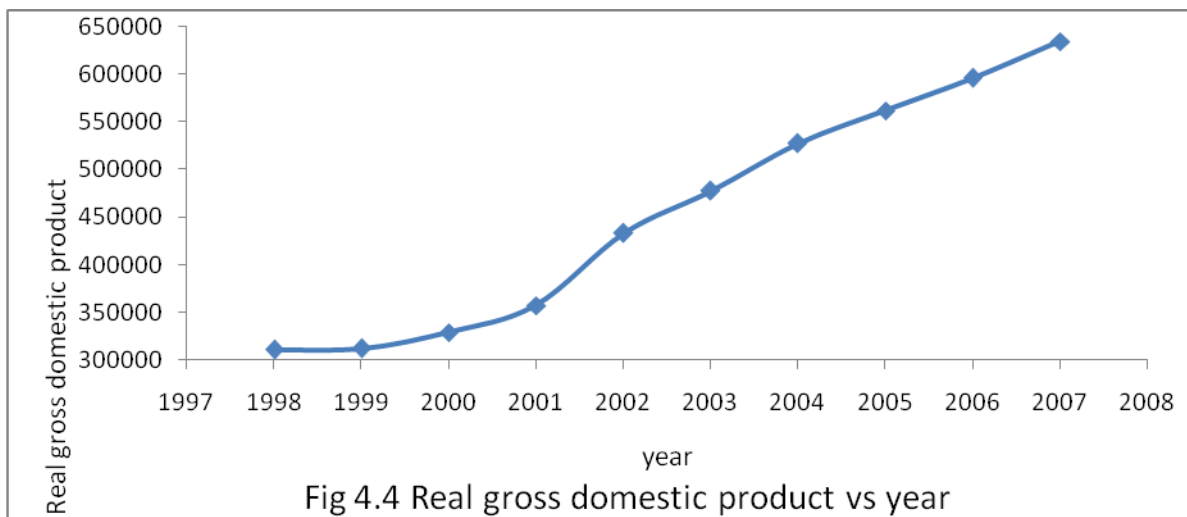4.4.1 data and plot showing real gross domestic product (economic growth) in years

Year	real GDP
1998	310890.1
1999	312183.5
2000	329178.7
2001	356994.3
2002	433203.5
2003	477533
2004	527576
2005	561931.4
2006	595821.6
2007	634251.1

Coefficient of determination R^2

This is interpreted as the proportion of the variance in the dependent variable that is predictable from the independent variable. Its decision rule is +1 or -1.

* The coefficient of determination ranges from 0 to 1.
* An R^2 of 0 means that the dependent variable cannot be predicted from the independent variable.
* An R^2 of 1 means the dependent variable can be predicted without error from the independent variable.
* An R^2 between 0 and 1 indicates the extent to which the dependent variable is predictable. An R^2 of 0.10 means that 10 percent of the variance in Y is predictable from X; an R^2 of 0.20 means that 20 percent is predictable; and so on. Clearly, if r is near 1 or -1, the deviations from the trend line must be "small". Thus if r is near 1 or -1, there must be relatively small deviations from the line.

Our result shows an **R^2** of 0.999341. This means that there is almost a perfect line of 1 and a that investment by insurance companies (INV) and insurance premium (AIPP) affects economic growth(Real GDP) greatly.
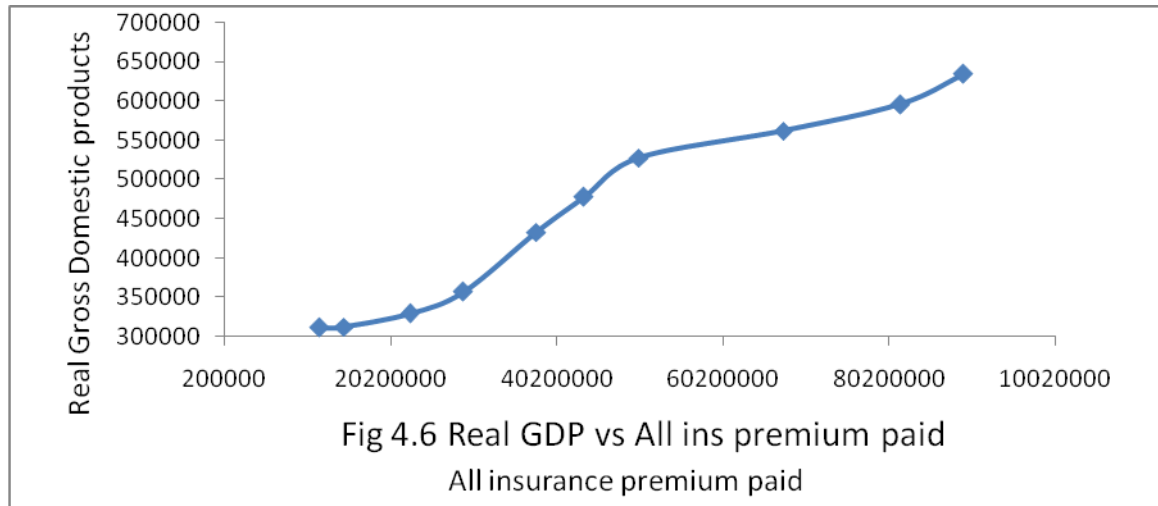

Fig 4.4 Real gross domestic product vs year

Test of hypotheses 1

HO: There is no significant relationship between insurance premium and economic growth.
H1: There is a significant relationship between insurance premium and economic growth.

Plot showing real gross domestic products (economic growth) versus insurance premium

The time series analysis between these two variables shows an exponential rise in growth rate at a rise in premium. There was a smooth curve linear rise at series =y= real GDP point "50100830" and another rise in economic growth as premium rose at point "10020000", At such, premium at point "50100830" would still yield economic growth and probably more growth at reduced premium, and more insurers. Therefore we reject the null hypotheses; there is no significance relationship between insurance premium and economic growth. And accept the alternate hypotheses which state that; there is a significant relationship between insurance premium and economic growth.

Fig 4.6 Real GDP vs All ins premium paid

Plot showing real gross domestic products versus investment in insurance

This plot shows the increase in economic growth as a result of the increase in investment by the insurance companies. There was a linear rise in economic growth from point 21583.46 till point 25192.63 when the economy experienced an exponential fall even at more investment income, `with a huge rise in economic growth at higher investment. Therefore we reject H0; there is no significant relationship between investments by insurance company and economic growth. And accept H1 which state that there is a significant relationship between investments by insurance company and economic growth.

Fig 4.5 Real GDP vs investment
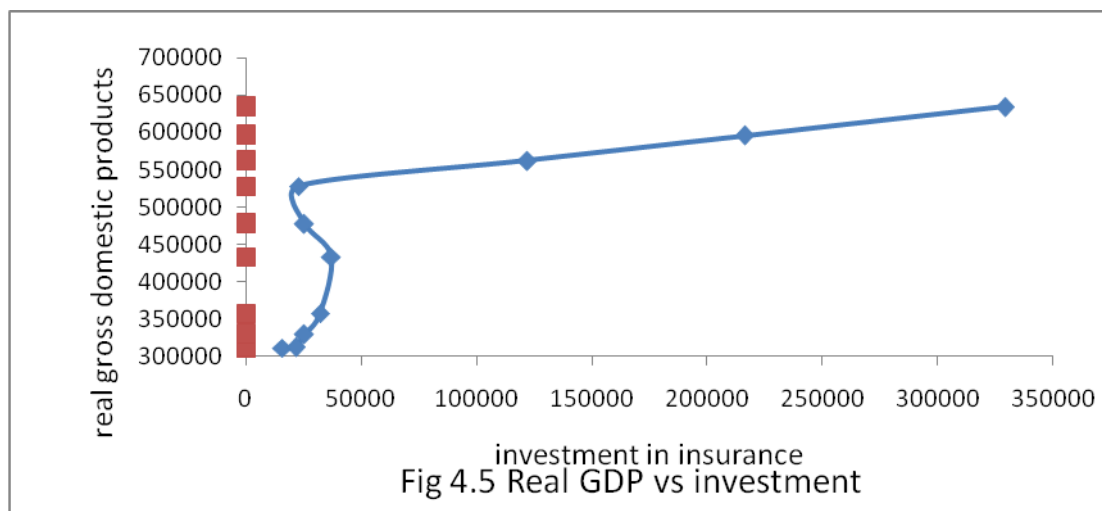
V. SUMMARY OF FINDINGS

The multiple regression model applied to the real gross domestic product (RGDP) and investment in insurance and insurance premium to GDP in Nigeria time series indicated that there is an underlying common trend between RGDP and investment in insurance and insurance premium to the GDP. The results of the study's model analysis summarily show that

1) real gross domestic product (economic growth) is positively related to investment in insurance at a very high correlation of 0.99. This implies that if investment in insurance increase, economic growth will also increase. This finding supports that of Boon (2005) who also found in his study that total insurance investment affect both capital formation and GDP growth in the short and long runs. The plausibility of the aforementioned finding may be ascribed to the fact that insurance and its activities, bothers a lot on investment, which has direct relationship with increased productivity (economic growth).

2) Insurance is a field of risk transfer through the premium invested in long-term financial assets which increase the rate of aggregate investment in the economy and thereby promoting development.

3) The findings further revealed that insurance helps to reduce risks, in addition to other functions provide means of accumulating savings. Such accumulated savings provide insurance companies with a pool of funds for investments that aid development.

4) In fact insurance companies contribute more to Nigeria economy by capital accumulation, than by reparation of loses through compensatory measure. The importance of insurance to economic development of a nation cannot be overemphasized, the contribution in respect of the progress of the economy.

VI. CONCLUSION

This study has succeeded in establishing that a direct or positive relationship exists between investment in insurance and economic growth in Nigeria. This means that building a formidable insurance industry in the country would immensely boost the country's economic growth. Consequently, the federal government should use policy actions to protect both the insurers and the insured in the country; encourage people to patronize insurance companies as well as encourage insurance companies to always pay genuine claims promptly at the occurrence of the event insured against. This will encourage more people to buy insurance, thereby increase premium income and provide investible funds which can be directed into lucrative investments for increased capital formation and productivity.

VII. RECOMMENDATIONS

1) The premium should be reduced, so that it can be of benefit to majority of individuals by insuring their property.

2) There should be a cheap means of handling risks to the insured in view of the fact that the principle of large number is brought to bear in the practice and operations of insurance.

3) There is need for a review of the relevant insurance statutes and regulations. These laws came into force at a time when the sector was heavily regulated. These laws should be reviewed to make them suitable for a deregulated insurance sector.

4) The federal government should use policy actions to structure better, the insurance industry in the country. This would solidify the status and operations of the insurance companies in the country;

5) The federal government should also use regulations to obligate insurance companies to always keep their own part of every agreement reached with their clients during periods of loss, accident, etc; and as such encourage more Nigerians to start trusting and patronizing insurance companies;

6) The federal government should as well use regulations to put under check the excesses of managers of insurance companies in the country to ensure that the

7) pooled funds are not pocketed or personally used but objectively directed into investments that would better the lot of the entire stakeholders of the insurance companies;

8) Insurance companies in the country should use seminars, conferences and constructive advertisements to create public awareness about their products. This is because many Nigerians are still naïve to the functions and importance of insurance companies and their policies.

9) The implication of the finding therefore remains for policy efforts to be directed by government at growing the insurance industry in the country; and through such means enhance investment as well as production and employment creation.

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