CONTRIBUTION OF INSURANCE INVESTMENT TO THE OVERALL GROWTH OF INSURANCE INDUSTRY IN NIGERIA

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ABSTRACT

This paper is an attempt at investigating the empirical relationship between components of insurance investment activities and economic growth indicator (asset and income) of the Nigerian insurance economy as well as the direction of causality between them. The impulse response functions of the insurance total investment variables to boast in the economic system of insurance companies. Ordinary Least Square Regression technique was used to analyse 18years data period (1996-2014). The study found a positive and no significant effect between insurance investment activities and output of total asset of insurance companies. In the short run, insurance investment positively and significantly correlate with its total asset. The poor model fit reflects the low capacity the independent variable brings into its equation with Total Assets of the industry. It was recommended that insurance awareness, proper fund management, efficient and effective insurance fund allocation (investment) should be encouraged while. The violation of investment guidelines (whether minor or severe) should be penalized.

Keyword: *Insurance, Investment, Total Asset.*

1.0 INTRODUCTION

1.1 Background of the Study

For insurance companies, the business of underwriting is usually only half the equation. The rest is managing the assets that support and pay for the liabilities they carry for others but more insurances are choosing to look to outside firms to help them navigate the increasing is one of the most successful service industries that many strong economies of the world are using to achieve their spectacular development and greatness. By affording protection to life and property it brings security of person and property with accompanying peace of mind which promotes and encourages adventure and entrepreneurship.

One of the major economic functions of Insurance industry is to promote the mobilization of funds thus, offering a basis for financial intermediation to commence, trade and industry. The industry provides employment to many. Its loss prevention function also contributes

substantial taxes to government, creating more goods, more jobs, improving earning, providing educational and health facilities.

Chui and Kioot (2008) submitted that the investment function is an extremely important function in the overall operations of insurance companies. According to him, since premiums are paid in advance, they can be invested until needed to pay claims and expenses. Among the various uses of premium, investment is the only utilization which provides positive income in future for the company. Investment in insurance business is concerned with the application of insurance funds which are not immediately required for expenditure, or for payment of insurance claims and benefits. When the funds are not meant for immediate consumption, they are employed to be productive and increase the value or even multiply, depending on how long they are engaged in the productive activities.

Investment has therefore being the indices of growth that are being heavily relied up but observation has show that with all the benefits attached to investment, most of the insurance companies are not embracing it adequately thereby denying themselves the benefits of growth of assets and profitability.

The insurance business will feel the positive effect of the investment activities when a portion of the premium income along with savings mobilized are adequately invested into various forms of insurance investment as provided for in Section 25, subsection 2 of the Insurance Act of Nigeria 2003, such that these investments can specifically and collectively translate into growth in the output level of goods and services in the economy. To grow optimally, the economy must learn to respond appropriately to the dictates of insurance investment activities. Four insurance investment activities: Investment in Government Securities (IVGS), Investment in Stocks and Bonds (IVSB), Investment in Real Estate and Mortgage (IVRM) and Investment in Cash Deposit and Hand (IVCD) are cardinal for our purposes. The way and manner of the economic reaction or response is a function of the magnitude and direction of the effects of the forces at play in the insurance industry, and this is what we refer to in this article as the relationship between economic growth and insurance investment. Insurance investment, for the purpose of this research work, concerns itself with the forces, actions, opportunities and stimulations, originating from insurance investment activities that bring about corresponding reaction or responses by the economic growth indicator.

The measure for insurance Economic growth is the output level of total asset and total investment. In order to chart current or future policy paths for the insurance growth response to insurance investment stimuli, it is important to first determine its behaviour in the past. It is necessary to investigate the behaviour of important Insurance growth indicator such as the asset in the light of the effects on insurance investment activities.

1.2 Statement of problem

The problems centred by the insurance companies in investing their generated funds are summarized below problem of finding source of investment that will contribute positive impact on the policy holder and shareholder, problem of high payment of tax investment would affect the profitability of mourner industry to Nigeria economic problem of maladministration will be vulnerable to investment growth to Nigeria economy.

These investment options or patterns are highly regulated by the government. There are opinions that this regulation subjects the\insures to low yield outlets and this is claimed to be detrimental to the industry practitioners. Problem of mal-administration will be venerable to

investment contribution of the Nigeria economy. Profligacy in management expenses will restrict the investment contribution that may be available.

The general purpose of the study is to examine the impact of insurance companies' investment activities on the output level of total asset of insurance industry in Nigeria.

The findings of this study will be of immense importance to investors, policy makers, financial analysts, and researchers who have strong interest in evaluating the investment performance of insurance companies and its implications on economic growth in Nigeria. This study is organized into five sections. Section 1 introduces the work, section 2 deals with the theoretical underpinning and a review of empirical studies, while section 3 contains the methodology. Section 4 presents the empirical finding and interprets the result and section 5 gives the concluding remarks.

2.0 REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Meaning of Insurance

Insurance is often defined as the act of pooling funds from many insured entities (known as exposures) in order to pay for relatively uncommon but severely devastating losses which can occur to these entities. The insured entities are therefore protected from risk for a fee, with the fee being dependent upon the frequency and severity of the event occurring (Encarta dictionary, 2009). Thus, it is a commercial enterprise and a major part of the financial services industry. Insurance is a form of risk management in which the insured transfers the cost of potential loss to another entity in exchange for monetary compensation known as the premium. Insurance In economic terms is refers to the pooling mechanism for reducing the down-side of risk through resource reallocation from good to stormy states of the world.

Churchill et.al (2003) opines that insurance facilitates financial protection against by reimbursing losses during crisis. It is designed to protect the financial well-being of an individual, company or other entity in the case of unexpected loss. This protection is accomplished through a pooling mechanism whereby many individuals who are vulnerable to the particular risk are joined together into a risk pool. Each person pays a small amount of money, known as a premium, into the pool, which is then used to compensate the unfortunate individuals who do actually suffer a loss.

Agbaje (2005) defined insurance as the business of pooling resources together to pay compensation to the insured or assured (i.e. the policy holder) on the happening of a specified event in return for a periodic consideration known as premium. Insurance involved the transfer of risk from one individual to another, sharing losses on an equitable basis by all members of the group. The group, known as insurance company, must increase its hold on the premium and widen its profit margin to cope with the demand of there.

Insurance companies are similar to banks and capital markets as they serve the needs of business units and private households in intermediation. The availability of insurance services is essential for the stability of the economy and can make the business participants accept aggravated risks. By accepting claims, insurance companies also have to pool premiums and

form reserve funds. So, insurance companies are playing an important role by enhancing internal cash flow at the assured and by creating large amount of assets placed on the capital market. Theoretical studies and empirical evidence have shown that countries with better developed financial system enjoy faster and more stable long-run growth of which insurance companies contribute to. Well-developed financial markets have a significant positive impact on total factor productivity, which translates into higher long-run development.

2.1.2 Meaning of Total Asset

The asset mix of an insurance company's investment portfolio varies over time based on different influences, including both macroeconomic and industry-specific factors. The general state of the global economy, industry trends, market and political events also impact investment management decisions. Similar to other industries, an adjustment to risk appetite tends to also result in an adjustment to investment strategies and philosophies. In a strong economy, risk appetite tends to increase and the converse is true during poor economic conditions.

The NAIC Capital Markets Bureau studied the insurance industry's portfolio mix across the five general insurance company types (life, property/casualty, fraternal, health and title) as of year-end 2010, year-end 2008 and year-end 2005. Depending on the insurer type, portfolio compositions could vary, due mostly to appropriately matching assets to liabilities and taking into consideration relative duration and liquidity risk. For example, life companies have longer-term liabilities than property/casualty companies; therefore, the former invests more heavily in longer-term assets, such as bonds with 30-year maturities, than the other industries.

Consistently in each of the three analyzed years, bonds represented the majority of insurance industry investments, ranging between 68% and 71% of total cash and invested assets. And, within the bond sector, the largest type across all three years was corporate bonds, ranging between approximately 43% and 48% of total bond investments. Investment across other asset types tended to vary.

The greater a company's earnings in proportion to its assets (and the greater the coefficient from this calculation), the more effectively that company is said to be using its assets.

2.1.3 Meaning of Investment

The term investment from the point of view of an insurance manager, is the conversion of money, the insurance funds and reserves into some species of property from which an income or profit is expected to derived either immediately or at some future date in the normal course of business. According to George and John Clendenin (1974:103) are investment is nay asset or property right acquired or held for the purpose of conserving capital or earning an income. Considering the Nigerian environment, the investment of insurance fund is heavily regulated by growth and problems.

Investment in insurance business is concerned with the application of insurance funds which are meant or immediately required for expenditure, or for payment of insurance claims and other benefits. The insurance business generate funds which must be invested either on a short term or a long term basis depending on the circumstances of the company concerned and the classes of the business transacted. The funds are exposed to risk of diminution on

value, illegality or even loss, hence the need for vigilant and protection against those hazards arises.

Nwaru (2002:68) implicated that investment is the conversion of money the insurance funds and reserves into some, species of propriety from which an income or profit is expected date to be served either immediately or at some future date in the normal course of business, perimeter (1968:40) defined investment as the process by which people will available resources put them at the disposal of company, building sureties, public arteries and other bodies in return for certain right embodied in share, stock or other forms of securities.

Victor (2004) says that investment involves the allocation of monetary resources to assets that are expected to yield some positive returns over a given period which comprises of the sacrifice of the present consumption for the prospect of uncertain reward, basically resulting to increase in future output.

Linter, (1965) concluded that investment can be defined as the act which involves the choice by an individual or organization after some analysis to place money in instrument or asset that has certain level of risk and provides possibility of generating returns over a period of time. It can further be explained that investment as an instrument of generating funds involves deployment of money in securities or assets issued by any financial institution with a view to obtaining the targets returns over a specified period of time.

According to *www.mapsofwould.com*, investment is the commitment of money or capital to purchase financial instruments or other assets in order to gain profitable returns in the form of interest, income, or appreciation of value of the instrument. Investments are related to savings or deferring consumption.

The needs for Investment in insurance business is to accumulate more fund for the purpose of Claim Payment which is the first and most important obligation of the insurer is to pay the amount of claims whenever they arise, to avoid financial deficit if funds are not invested, the total income of the insurer will fall short of its requirements for meeting its commitments because a particular rate of interest on its investments has been assumed while calculating the rate of premium and for economic development of the nation.

Aneke (2006:215) gave an explanation on insurance company's sources of funds, these insurance companies sources of funds, life insurance companies have substantial funds at their disposal such funds are Premiums, Interest, Capital Gain, Savings in Expenses, Non-Payment of Claims:

2.3 Theoretical Framework

2.3.1 Efficient Markets Theory

This theory states that the market prices for shares/financial securities incorporates or captures all the known information about that stock/security. This means that the stock is accurately priced or valued until a future event changes that valuation. Because the future is uncertain, an adherent to the efficient market hypothesis is far better off for owning a wide range of stocks and profiting from the general price rise of the market. Opponents of efficient market theory point to a few works such as Warren Buffett and other investors who have consistently beaten the market by finding irrational prices within the overall market.

This Markowitz efficient behaviour exhibited by insurance companies while investing is usually associated with five cardinal patterns:

a) Preference for more returns on investment to fewer returns.

b) Envisaging expected returns on investment to depend on possible current returns.

c) Envisaging risk on investment as directly depending on the size of expected returns.

d) Preference of less risk to more risk.

e) Saving/premium-investment (intermediation) decisions are based on the parameters of risk and returns (Ezirim and Muogholu, 2002).

(Ezirim, 2007), observed that Markowitz efficient market hypothesis is basically a theory of return and risk, which phenomena are the building blocks of modern portfolio theory. In their investment and intermediation activities, insurance companies construct portfolios in the process of creating and holding different types of both real and financial assets. The portfolio behaviour of insurance companies is targeted at creating optimum amounts and varieties of assets, and hence optimum returns on investment, at a given level of risk. The effect would be to minimize the level of risk possible at any given level of expected return. Such portfolio behaviour is in line with what has been described as efficient portfolio behaviour

2.4 Empirical Framework

The work of Ching, Kogid and Furuoka (2010), examined the causal effect of life insurance assets on economic growth. This was experimented using the co-integration analysis with quarterly data drawn from Malaysia for the period 1997 to 2008. On the whole, the evidence, particularly from the regression result seems to suggest that there is a one way relationship flowing from real GDP to life insurance sector. No causal relationship flowed from life insurance to GDP. This shows that the response by the economy growth indicators to life insurance sector variables like savings mobilization, risk management and investment do not completely grow the economy. Chen, Lee and Lee (2011), in their work that sampled sixty (60) countries for the years 1976 to 2005, examine the effects of life insurance market on GDP per capital growth. The study focused on the relationship between life insurance market development as well as stock market operations and the implication for economic growth. A derivative of the endogenous growth model was employed to analyze the relationship. The generalized method of moments (GMM) technique was used in estimating the equations that link life insurance and stock market with growth. The result from the study shows a supply-leading impact of the development of the life insurance market on economic growth. The results further showed some evidence that stock market and the life insurance market are substitutes rather than complements. The results imply that causality runs from life insurance market to economic growth.

Agwuegbo, Adewole and Maduegbuna (2010) predicted insurance investment using a factor analytic approach and the implication for economic growth in Nigeria. The study focused on the role played by insurance companies in enhancing the efficient functioning of the financial system in Nigeria. It was observed that insurance companies issue and sell indirect financial securities to the surplus economic units and consequently, purchase other financial securities, which are primary in nature, from the ultimate borrowers of those funds. The study reported

that the insurance industry in Nigeria holds a reasonable percentage of the country's total investable fund generated by the capital market. These investments in the stock market serve as a shield for insurance against predictable underwriting losses (covered losses) which are more prominent than their return on investment. These findings suggest that insurance investment activities not only boost the output level of goods and services in the economy but also, enhance the performance of the risk management function of insurance, hence, stabilizing and growing the economy.

3.0 RESEARCH METHODOLOGY

The research adopted an Ex-post facto design. This is considered appropriate since it dealt with data that had already taken place (Onwumere, 2009). It relied on historical data from 1996 to 2014.

Secondary data was sourced from Central Bank of Nigeria Statistical Bulletin across various years.

Research Questions

The research question for this study is thus;

Is there any significant relationship between insurance companies' investment activities on the output level of total asset of insurance industry in Nigeria?

Research hypothesis

Ho_1: There is no significant relationship between insurance companies' investment activities on the output level of total asset of insurance industry in Nigeria.

Model Specification

In specifying the model for the study, the following acronyms will be used to represent respective variables:

TA = TOTAL ASSETS
TI = TOTAL SECURITIES INVESTMENTS
Stochastically:
$TA = \partial + ß1\ TI + \varepsilon$

Interpretation of Variables

TOTAL ASSETS: This is the sum of all assets owned (created or bought) by the insurance industry.
TOTAL SECURITIES INVESTMENT: This is the total of all forms of investments made by the insurance industry.

Method of Data Analysis

Linear Regression was used as a statistical test technique for the data analysis. According to Egbulonu (2007:162) the term regression is used to describe the relationship between one variable and another. Regression analysis involves trying to understand how one variable –

such as cash flow – is affected by changes in a number of other factors (or variables) that are believed to influence it. For example, the cash flow for an engineering business may be affected by changes in interest rates (INT), the Euro/Naira exchange rate (EXCH), and the price of gas (GAS). The relationship between the variables can be expressed as follows: Change in cash flow = ∂ + ß1 INT + ß2 EXCH + ß3 GAS + ε Where INT represents the change in interest rates, EXCH represents changes in the Euro/Naira exchange rate, GAS represents changes in the commodity price, and ε represents the random error in the equation. The random error reflects the extent to which cash flows may change as a result of factors not included in the equation.

The coefficients ß1, ß2, and ß3 reflect the sensitivity of the firm's cash flows to each of the three factors. The equation is easily estimated using standard packages (including Excel), and the estimated coefficients can be used to determine the firm's hedging strategy.

Suppose ß2 is negative, implying that the firm's cash flow would fall if the exchange rate went up. If the firm wished to hedge its cash flow against such an event, then it might do so by taking out a forward contract. If the exchange rate rose, the resulting drop in cash flow would be countered by an equivalent rise in the value of the forward contract. Thus, assuming the hedge position was properly designed and implemented, the result is to insulate the firm against a change in the exchange rate.

The choice of this approach is premised on the Gaus-Markov theorem which portends that Linear Regression is the best linear unbiased estimator, with which straight line trend equations could be estimated.

4.0 PRESENTATION AND ANALYSIS OF DATA

4.1 Presentation of Data

Table 4.1

YEAR	TOTAL ASSETS	TOTAL INVESTMENTS
1996	28934.93	12379.51
1997	37928.18	13613.51
1998	41451.22	15656.88
1999	50131.65	21583.46
2000	61600	25192.64
2001	78060.48	32257.27
2002	85255.73	36940.87
2003	124267.4	54642.84
2004	141222	74590.75
2005	203113.1	121844.2
2006	307542.6	82291.08
2007	427497.2	1006195
2008	573154.5	1502596
2009	586459.5	1799408
2010	585015.8	1857291
2011	621095.1	2884979
2012	28934.93	3993732
2013	37928.18	5062415
2014	6210951	359192

Source: Central Bank Statistical Bulletin (various years)

4.2 Testing of hypothesis

Ho_1: There is no significant relationship between insurance companies' investment activities on the output level of total asset of insurance industry in Nigeria.

H1: There is significant relationship between insurance companies' investment activities on the output level of total asset of insurance industry in Nigeria.

The regression analysis for the Hypothesis has as its model:

Y = 595887.547 -.058 X1

The model is explained by the Coefficient of Determination (R^2) derived as .004 and Adjusted R^2 of -.055. Given that R^2 and Adjusted R^2 are nearer to zero than to one it shows the model has a poor fit to the analysis. That is to say, 5.5% of the total variation in Total Assets of the insurance industry could be explained by the model. Thus, Total investments can be held responsible for 5.5% variation in Total Assets. The independent variable had a positive correlation coefficient of .063 with the dependent variable. It points to an average linear relationship.

The Durbin Watson value of 1.014 shows there is no auto-correlation between the variables. That is to say each cannot be linearly predicted from the others with a substantial degree of accuracy.

4.3 Discussions of findings

On individual influence of the independent variable it was observed that t-calculated = -.258. The Decision rule holds that when t-calculated is greater than t-tabulated then X1 (Total Investments) is seen as significantly affecting Y (Total Assets of the Insurance industry). With t-tabulated, derived as $t\infty/2(n-k)$, t (0.05/2)(19-2) = 2.110, it is seen that Total Investment had no significant effect on output of Total Assets of the Insurance industry.

In testing the hypothesis the ANOVA Table had its f-calculated as .067 with 0.000 statistical significance and f-tabulated: $f\ (k-1)(n-k)\infty = f\ (1)(17)(0.05) = 4.45$.

The ANOVA Decision rule holds that if f-calculated is greater than f-tabulated the Null hypothesis is rejected but if not its accepted. Based on the outcome of the ANOVA statistics which found f-calculated lower than f-tabulated it is concluded that Total Investments have no significant effect on output of Total Assets of the Insurance industry.

5.0 SUMMARY AND RECOMMENDATIONS

5.1 Summary

This study was on the effect of Investment of the insurance industry on the growth of the industry. It examined the predictive effect of all the investments of the industry put together on their Total Assets. It was found that it had no significance on output of Total Assets of Insurance industry. The model shows that a percentage change in output of Total Assets will be due to 5.8% change in Total investments.

5.2 Conclusion

The ultimate objective of the Investment is to secure minimum amount of earnings to pay policyholders' future liabilities without any burden of financial scarcity. The model fit reflects the capacity the independent variable brings into its equation with Total Assets of the industry. It points out that insurers believe investment as a reasonable means of earnings. True investors are interested in a good rate of returns earned on a rather consistent basis for a relatively long period of time. The speculator seeks opportunities that promise very large returns, earned rather quickly. But investment is distinguished from speculation by the time horizon of the investor and often by the risk – return characteristics of the investments.

Equities and international assets are shown to be higher risk than domestic government bonds, but also offer a disproportionately higher return (Davis, 2000).

5.3 Recommendations

Considering the huge amount of public fund held by insurers, prudential supervision should be intensified on their investment of the fund. The violation of investment guidelines (whether minor or severe) should be penalized. Although a better option would be for National Insurance Commission to institute an early warning system that makes it easy to take precautionary measure and more so any necessary step to avert systemic failure immediately after getting the notice of wrong doing.

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Appendixes 1 & 2

Regression

Descriptive Statistics

	Mean	Std. Deviation	N
TOTALASSETS	538449.6579	1.39139E6	19
TOTALINVESTMENTS	997726.3689	1.51122E6	19

Correlations

		TOTALASSETS	TOTALINVESTMENTS
Pearson Correlation	TOTALASSETS	1.000	-.063
	TOTALINVESTMENTS	-.063	1.000
Sig. (1-tailed)	TOTALASSETS	.	.400
	TOTALINVESTMENTS	.400	.
N	TOTALASSETS	19	19
	TOTALINVESTMENTS	19	19

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	TOTALINVESTMENTS[a]	.	Enter

a. All requested variables entered.

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	TOTALINVESTMENTS[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: TOTALASSETS

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.063[a]	.004	-.055	1.42893E6

a. Predictors: (Constant), TOTALINVESTMENTS

b. Dependent Variable: TOTALASSETS

Model Summary[b]

Model	Change Statistics					Durbin-Watson
	R Square Change	F Change	df1	df2	Sig. F Change	
1	.004	.067	1	17	.799	1.014

b. Dependent Variable: TOTALASSETS

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.362E11	1	1.362E11	.067	.799[a]
	Residual	3.471E13	17	2.042E12		
	Total	3.485E13	18			

a. Predictors: (Constant), TOTALINVESTMENTS

b. Dependent Variable: TOTALASSETS