



Impact of Environmental Risks on Insurance Business Performance; Econometric Evidence from Nigeria from 1996-2019

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ABSTRACT

The broad objective of this study is to examine the impact of environmental risks on insurance business performance using ordinary least square technique. Result reveals Real and Effective Exchange Rate positively and significantly affect the Financial Performance of Insurance Companies in Nigeria. Broad money supply negatively and non-significantly affects the Financial Performance of insurance Companies in Nigeria. Inflation rate negatively and non-significantly affects the Financial Performance of Insurance Companies in Nigeria. Interest rate negatively and significantly affects the Financial Performance of Insurance companies in Nigeria. Credit to the Private Sector positively and non-significantly affects the Financial Performance of Insurance Companies in Nigeria. It was concluded that environmental risks in Nigeria strongly affect the countries financial development and play a significant role in the development of the financial system and economic growth. Business environment help to provide growth in the financial outlet, development in money and capital market and create increase in the level of insurance indemnification of policy holders at the event of loss. Based on the above conclusion, it was recommended that Government should endeavor to regulate the activities of exchange rate fluctuations so as to enhance suitable environment where insurance intermediation will thrive. Financial development such as increase in brood money supply and sectional allocation of commercial bank credit to the private sectors will be encouraged so as to increase the financial performance of insurance in Nigeria. Monetary authorities should endeavor to combat constructively the effect of inflation, regulate inflation rate so that private sectors will patronizes insurance sector policies effectively. Insurance industries should create more awareness about insurance business and pay genuine claims without undue delay. Also regulate interest rate so that private sectors will patronize insurance sector policies effectively. Conducive environment of business will enhance financial liberalization and GDP expansion Through private sector credit. Therefore, the government should ensure that the financial systems are safe for attraction of foreign investors. This will attract foreign direct investment and promote local content initiatives

Keywords: Insurance Performance; Financial System Broadening; Environmental Risks; Nigeria

1. Introduction

Insurance industry we are seeing today passed through many eras before now. This era accounted for the growth and development of insurance industry in Nigeria. As a backup to this assertion, Nwite (2004) noted that the pre-colonial insurance has been in existence in the country before the modern insurance we have today. Before the advent of British merchants in Nigeria, Nigerian has been practicing crude form of insurance which still existed in the rural village even today. Aneke (2006) supported the existence of pre-colonial era of insurance by saying that before the arrival of British merchants, there existed an informal way of risk sharing based on extended family system, age grade association, town union benevolence and other who were unfortunate to be involved in one form of loss or the another. Mordi (1990) concluded the issue of pre-colonial era by explaining how the traditional society system has shown sympathy to their members who suffered some misfortune like death, ill-health flood disaster, fire ravages of court cases. Okonkwo (2002) expressed that, tracing the pre-colonial era, both the extended family system, and the town union still exist in Nigeria today but most of their insurance functions have been taken over by an organized insurance system similarly, the Age grade Association, Umuada or Umuokpu still pay some important roles income relating to sanity, conformity to social norms and values, all geared towards rural development.

Banjo (1995) recorded the advent of the modern insurance in Nigeria using colonial penetration of insurance through British Merchants who established trading post on the West coast of Africa. This is how insurance started in Nigeria from 1880. Ujadu (1985) expressed that during the 19th century, British Merchants arranged insurance for their trading concerns on the London insurance market as early as 1900. The Royal Exchange Assurance and Tobacco insurance company limited as at 1910 appointed two insurance agents who underwrites business in Nigeria and process it in London. In 1921 Royal Exchange decided to appoint a resident insurance officer in Lagos. These companies according to Jegde (2005) become the first recognized insurance company from 1921 to 1949 when three other insurance companies were established. This new companies were legal and general assurance society limited and the Norwich union and fire insurance society limited and the Norwich Union and Fire Insurance Society which merged with an unregistered indigenous insurance company called Guinea insurance company limited. Falegun (1991) recorded that it was in 1958 that the first insurance company in Nigeria otherwise known to be the first indigenous insurance company was established called the African insurance company limited and that is why our insurance system was patterned opined that during the 1960 political independence of Nigeria the outcome of British domination in insurance sector created the proliferation many insurance companies. Companies like the Great Nigeria insurance company, the Nigeria General Insurance Company Limited UNIC emerged.

Irukwu (1991) posits that immediately after 1960 political independence, by 1961, the member of insurance companies increased from 4 to 23 and to further 66. This led to the vision of controlling insurance activities in Nigeria. This resulted to the creation of marine insurance Act of 1961. This Act led the foundation of insurance regulation where the insurance companies existing in Nigeria were asked to recapitalize to the sum of £50,000 for the first time in the Nigeria insurance industry. Adeyemi (2005) records that amendment of insurance Act of 1961 led to the increase of insurance capital base to £50,000 in 1964 which is referred to as 1964 marine insurance Act. This act helps to regulate the already flogged insurance market with much room insurance activities besides, the 1964 insurance Act laid foundation for legal statutory deposit to be kept with the Central bank of Nigeria.

Based on the level of global development and international financial market growth, in 2003, a new insurance act was passed into law by the government of chief Olusegun Obasanjo that increased geometrically the capital has of insurance companies that still failed to meet global trends. Hence life assurance capital base was N150m, non-life, N20m, composite; N350m and Re-insurance N350m, (Nwamba, 2010). This resulted in 107 out of 117 insurance companies in Nigeria surviving the new wave of new capital base. This equality made insurance companies to be active participant in Africa and other continents.

Over the years, due to the implicit cost of enforcement of exchange rate laws made by the government, they indirectly involved in the parallel market activities (Onyewu, 2010). When government failed to deal with excess demand of foreign currency created by official exchange market rate, it results to scarcity and its consequences results to parallel market otherwise called unofficial/back market for foreign exchange (Sanusi, 2012). One of the most notable problems in insurance is the macro-economic operates. Business environment influence poses the highest threat in the macro economic performance of insurance industry which expectedly will engenders economic

growth and development. There is a general consensus among economist that financial development spurs economic growth. Theoretically, financial developments create enabling conditions for growth either insurance intermediation or assets securitization. A large body of empirical research supports the view that development in the financial system contributes to the economic growth of Nigeria. Empirical Evidence consistently emphasizes the nexus between finance and growth through the issue of direct causality Act cross country level, Evidence indicated that various measure of financial development including financial intermediations liquid liability securitization, domestic investment in stock exchange securities bonds and suretyships are grossly being affected by the insurance business environment.

The reform in the financial system in Nigeria which high lightened the 1986 deregulation exercise affects the level of business environment contribution of insurance to the economic growth. Besides, rapid globalization to insurance financial products since deregulation increase integration of insurance business to the global system but has been hindered by the local business environment. Growths in insurance sector translate to growth in the economy. Growth in the economy is the growth of the life and standard of living of people in the country. The question arise, how has the business environment such as exchange rate, inflection, interest rate broad money supply and credit to the private sector affected the performance of insurance industry in Nigeria. The reason for this question is that over the years, it has been on record that insurance industry has not be contributing significantly to the growth and development of Nigeria.

The broad objective of this study is to examine the impact of Environmental risks to insurance performance in Nigeria. The following are the specific objectives. Measure the impact of real and effective exchange rate on insurance performance in Nigeria. determine the effect of broad money supply on insurance performance in Nigeria ascertain the impact of inflation on insurance performance in Nigeria investigate the effect of interest rate in the insurance performance in Nigeria. Measure the contribution of credit to the private sector on insurance performance in Nigeria.

2. Review of Related Literature

2.1 Conceptual Framework

The Concept of Insurance

Insurance is a safeguard against risk. It is a device aimed at reducing the chance of a risk occurring or when it happens reduces the extent of its damage and providing the affected person with compensation is a form of insurance (Ogwo, Eche, Ibeabuchi, Nwite and Enwereuzor, 2000). Irukwu (1991) further defined insurance as a device for the transfer of some risk of economic loss from the insured who otherwise would have borne the risks to an insurer in return for a premium.

Okonkwo (2002) defined insurance as a social device whereby the participants provide financial compensation to those among them who encounter the many misfortunes or contingencies that could happen in a world full of assorted risks and hazards.

An Overview of Economic Growth

In a very privacy understanding, Economic growth refers to an increase in GDP over time as reflected by increase in the volume of goods and services of a country.

Word Bank (2011) sees economic growth as a sustained annual increase in an economy, real national income over a period of time hence it entails a rising trend of not national product at constant prices. This definition has been characterized by some economists as unsatisfactory because the natural income may be increasing and yet the standard of lying of people may be falling. In an economy were the population is investing at a geometric rate than the national income which increases the arithmetic rate.

According to Kiprop, Kalio, Symon and Kibat (2015), if the national income is increasing and population is increasing, the standard of living will tend to fall. This is so because when the population in increasing more rapidly than national

income, per capital income will go on falling therefore, per capital income will rise when the income increases faster than the population.

Besides, Ndebbio (2004) expressed that the best way of viewing economic growth is to do so in relation to per capital income. Here, Economic growth is viewed as the annual increase in real per capital income of a country over a long period. Arthur (2016) stated that economic growth is the growth of output per head of population. Since the main objective of economic growth is to raise the standard of living of people, this approach is more comprehensive because it runs using per capital income or output per head.

It is also important to note that increase in national income or increase in income per capital must be a sustained increase. A sustained increase is an increase where there is an upward or rising trend in per capita income over a period of time. Therefore, a short periodic rise in per capital income such as an increase, caused by the boom of the business cycle over a short period cannot be candidly viewed as economic growth.

Real Effective Exchange Rate (REER)

Ayodele (2009) opined that REER is the rate of a traded weighted average of real exchange rates between two countries and these trading partners. The weight reflects the proportion of imports over exports. This type of exchange rate is used by C.B.N as the official exchange rate. Nominal Effective Exchange Rate (NEER); This is the weighted average of nominal exchange rates between one country and its partners. For policy makers, exchange rate policy in practice requires the adjustment of the nominal rate to achieve Real Effective Exchange Rate Equilibrium. While this is possible in the short run, it is debatable if the long-run equilibrium value of the real exchange rate can be properly targeted given the fact that the long-run equilibrium value may not be stable.

Concept of Inflation

According to Economic Times (2017) inflation is the percentage change in the value of the wholesale price index on a year basis. It effectively measures the change in the prices of a basket of goods and services in a year. Inflation occurs due to an imbalance between demand and supply of money, changes in production and distribution costs or an increase in taxes on products when the economy will experience inflation. Hence, when the price level of goods and services rises, the value of currency reduces, meaning that each unit of currency buys fewer goods and services.

Orji (2016) advocated that the impact of inflation was felt mainly by the consumers. High prices of day-to-day goods make it difficult for consumers to afford even the basic commodities in life. This leaves them with no choice but to ask for high incomes. Hence, the government tries to keep inflation under control by using the foreign reserve. Constancy to the negative effect of inflation is good for the economy. If the rate of inflation is 2%, it encourages people to buy more and borrow more and the level of interest rate also remains low. Therefore, the government strives to achieve a limited level of inflation.

Interest Rate

The term interest rates is commonly cited as an indicator of monetary policy stance, as well as a leading indicator of economic activity affecting insurance business in Nigeria. One of the factors that influence the interest rate on a bond is its term to maturity different from each other. The yield on bonds differs at terms to maturity but it has the same risk, liquidity and tax considerations. A yield curve describes the term structure of interest rates or the way the interest rate varies with terms.

The real interest rate is an important determinant of the savings and investment behavior of households and enterprises and therefore of key importance in terms of cyclical development and long-term economic growth it is therefore vitally important to ask whether the real interest rate level is appropriate and how, if necessary, it can be influenced. Measuring real interest rates is, however, associated with a number of problems as the inflation expected during the insurance investment period cannot be observed directly. Nonetheless, real interest rates contain important information about insurance investment conditions in the capital market and the economy's financing terms. This can be seen from an analysis of real interest rate movements over the past 40 years. An attempt by the central bank to control real interest rates gives rise to a number of problems and must ultimately be rejected, monetary policy has a direct effect only on the short end of the interest rate spectrum. The attempt to use an

expansionary monetary policy to drive long-term real interest rate below their equilibrium value would merely lead, in the medium term, to price increases which would, in turn, be reflected in a higher inflation risk premium and therefore in higher capital costs.

2.1 Theoretical Framework

Financial Liberalization Theory

The theory that guides this study is the theory of financial liberalization. Financial liberalization theory has its origins in the work of Mckinnon (1973) and Shaw (1973). It was Patrick (1966), however, who published the seminal work on the relationship between financial development and economic growth. He hypothesized two possible relationships, a “demand following” approach, in which financial development arises as the economy develops and a “supply-leading” phenomenon, in which the widespread expansion of financial institutions leads to economic growth (Arestis, Nissanke and Setin, 2005). Led by seminal papers of Mckinnon (1973) and Shaw (1973), a significant number of studies have pointed out that financial liberalization can exert a positive effect on growth rate as interest rate levels rise towards their complete market equilibrium, while resources are efficiently allocated.

Arestis (2005) states that the relationship between financial development and economic growth has received a great deal of attention throughout the modern history of economics

Nkurunzizi (2002) further argue that even in the absence of monetary factor explained above, a country seen as inferior in quality to the same good manufactured abroad. Thus, demand arises for foreign exchange to purchase the perceived high quality of these foreign goods.

Ismaile (2016) equally argued that another reasons for the development of parallel market is the existence of hidden treasure driven in the country where people engage in the black market/illegal dealing such as sales of sold, contraband goods and investments in drug trafficking with the intention of

2.3 Empirical Reviews

Empirical Reviews in Nigeria

Odosola and Akinlo (2001) examined the linkage between exchange rate, inflation and output in Nigeria using a structural VAR model. The result shows parallel premium and output has a negative impact and hence dictate the rate of inflation. The concluded that since parallel premium causes inflation government should endeavor to tame the behavior of exchange rate by formulating monetary policies that enhances income and growth.

Udoh and Egwalkhaide (2008) studied the effect of exchange rate volatility and inflation uncertainty on foreign direct investment in Nigeria using GARCH model. The result reveal that exchange volatility and inflation uncertainly execratory a significant negative influence on FDI. They concluded that before foreign direct investment could yield any type of impact the rate of inflation and its associated exchange rate behavior must be significantly controlled by the monetary authorities.

Usman (2008) investigated the impact of exchange rate fluctuation on a developing country GDP using Nigeria the developed a regression model where GDP was endogenized while exchange rate stability and trade openness was exogenesis. Result reveals that exchange rate and, trade openness are essential for economic growth and development. The concluded that instability in exchange rate and trade restriction can be capable of causing negative impact on a country's GDP.

Agbamuche (2012) employed chi-square model in his study on investment of insurance funds in the Nigeria capital market, and find out that:

- i. the insurance industry invests substantial parts of its funds in the capital market. This implies that the surplus funds of the insurance companies after claims to policyholder have been paid out is then invested the capital market in the form of government securities, corporate funds, real estate, mortgages etc.

- ii. that the investments of insurance fund contribute to the socio-economic growth of the country. This implies that as insurance contributions increase, economic growth would also increase hand in hand.
- iii. that the insurance industry contributes positively to the growth of the capital market. This implies that the insurance industry is also a center of capital formation, mobilization and allocation of resources with the economy because it deals with long term securities and it enables the funding of other deficit sectors source of funds available to the insurance industry is through premium incomes; however other income come in the form of insurance of shares and other investment returns.
- iv. that the insurance industry is a relevant sector of the economy. This would suggest that a direct or positive relationship exist between the insurance industry, insurance contribution and economic growth in the country.

Ultimately a relevant and formidable insurance sector would help greatly in boosting overall economic growth in Nigeria.

Boon (2005) also observed in his study that total insurance funds affect both capital formation and gross domestic product growth in the short and long term. The importance of Boon's finding has to do with the fact that insurance and its core activities has a lot do with investment in Japan which in turn has a direct correlation with increased economic growth and productivity.

Mojekwu, Agwuegbu and Olowokudjo (2011) established and found that total insurance funds affect both capital formation and GDP growth in the short and long term. Their study employed dynamic factor model in their study and find out that there is a functional positive relationship between insurance contributions and economic growth in Nigeria.

Ngong (1997) developed an aggregate index of capital market development and use it to determine its relationship with long run economic growth in Nigeria. The study employed a time series data from 1970 to 1994. For measures of capital market development the ratio of market capitalization to GDP (in percentage), the ratio of total value of transaction relative to GDP and listings used. The four measures were combined into one overall composite index of capital market using principal component analysis. A measure of financial market depth (which is the ratio of broad money to stock of money to GDP was also include as control. The result of the study was that capital market development is negatively and significantly correlation with long run growth in Nigeria. The result also showed that exists bi-directional causality between capital market and economic growth.

Ewan, Esang and Bassey (2009) appraise the impact of the capital market efficiency in the insurance growth of Nigeria using time series data from 1961 to 2004. They found that the capital market in Nigeria has the potential of growth inducing but it has not contributed.

Meaningfully to the economic growth of Nigeria because of low market capitalization low absorptive capitalization, illiquidity, misappropriation of funds among others.

Haiss and Sumegi (2008) applied a cross country panel data analysis from 29 European countries in the period from 1992 to 2005. The insurance variable is measure by premium income and total net investment of insurance companies. Premium income is split into life and non-life premium income. As estimation method, the authors use ordinary least squares (OLS) or unbalanced panel with country and time fixed effects. According to the findings, there is a positive impact of life insurance on GDP growth in the EU-15 countries, Switzerland, Norway and Keland, while non-life insurance has a larger impact in central and Eastern Europe.

Wadlamannati (2008) examined the effects of insurance growth and reforms along with other relevant control variable on economic development in India in the period from 1980 to 2006. Growth of insurance penetration (life, non-life and total) is used as proxies of insurance sector growth. The author applied ordinary least square (OLS), cointegration analysis and error correction models (ECM). The study confirms positive contribution on insurance sector to economic development and a long-run equilibrium relationship between the variables. While the reforms in the insurance sector do not affect economic activity, their grow has positive impact on economic development.

Marijuana, Sandra and lime (2009) empirically examined the relationship between insurance sector development and economic growth in 10 transition European union member countries in the period from 1992 to 2007. Insurance variables were used, life non-life and total insurance and other control variables like education, openness, inflation, investments, bank credit, stock capitalization. According to their findings insurance sector development positively and significantly affects economic growth.

Eze and Okoye (2013) examined the impact of insurance practices on the growth of Nigeria economy. Insurance premium income, total insurance investment and income of insurance development was used as determinants of insurance practice. They employed unit root tests, Johansen co-integration test and error correction model in data analysis to determine the short and long run effect of the model. The study observed that the insurance premium capital has significantly impacted on economic growth in Nigeria, that the level of total insurance investment has significantly affected on economic growth in Nigeria, and that there is causal relationship between insurance sector development and economic growth in Nigeria. Their finding implied that insurance industry would contribute measuring to the growth of Nigeria economy in the long run. The study concluded that there is a significant positive effect of insurance practice on the growth of Nigeria economy. They recommended that, having seen that there is long-run relationship between insurance industry practice and economic growth in Nigeria. They further advised that more efforts should be made to increase transparency and efficiency in insurance industry through adequate legislation and policy formulation targeted at providing institutional improvement, especially in risk management and product innovations in Nigeria insurance industry.

Obi Obada and Abu (2010) estimated the link varieties in Nigeria using regression model. They observed that the interest rate is statistically and economically significant in explaining exchange rate. They argue that interest rate has a link with exchange rate and suggested the policy should be created to ensure that exchange rate stability should also try to capture interest rate.

Adelowokan (2012) studied the determinant of interest rate in Nigeria for the period of 1970 – 2010. He used a panel survey in the study. The study reveals that variability in exchange rate causes a disagreement in macro-economic contribution to the growth and development of Nigeria. He concluded that monetary authorities in Nigeria should try to reserve the economy by ensuring stability of the exchange rate in the economy.

Dada and Oyeranti (2012) studied the link between broad money supply and insurance sector development in Nigeria using cointegration model. Result shows that shows that Mz variability causes a positive reaction to insurance variable and also cointegrates at both in the short run and long run equilibrium. They conclude that transparent policies that will pave way for stability of exchange rate is better option for economic acculturation in Nigeria.

Eme, Akpan Jostua atan (2014) Effect of CPS movements on economic growth of Nigeria using generalized method of moment technique. The estimation results suggested that there is no evidence of strong direct relationship between changes on CPS and output growth. Rather, Nigerian economy has been affected by exchange rate behavior. They concluded that improvement in the management of exchange rate with broad reform in exchange rate management will enhance improvement of exchange rate so as to contribute to the economic growth.

Imoisi Uzomba and Olatinji (2010) carried out an analysis of interest and exchange rate effect on the Nigeria economy 1975 – 2008 using ordinary least square and integration analysis which established the existence of a long run relationship between the variables of interest. Result increase in interest rate returned investment and subsequently economic growth. Hence interest and exchange rate variability create negative impact on the Nigeria economy. They conclude that interest rate and exchange rate should be properly managed so as to stem interest growth through investment.

Jimoh (2006) examines the effect of trade liberalization on real insurance business in Nigeria. Evidence from Nigeria from 1960 – 2010 using Johanson cointegration model. The result reveal that trade liberalization co-integrates with insurance business in Nigeria since 1986 because 13% depreciation in Nigeria real exchange rate made real exchange rate to be more responsive to change in terms of trade. He concluded that less decisive change in trade regime produces no significant change in the real exchange rate.

Shobande and Odeleye (2015) examine the long run effect of insurance policy on economy using Nigeria as a case study from 1970 – 2012. He uses ordinary least square regression techniques to draw inference insurance business is dynamic to economic growth. The findings reported that real output is negative by influenced by exchange rate and gross capital formation and positive duplicated by broad money supply and focal diesoline. He concluded that appropriate policy that will exchange stabilization of exchange rate will boast national output and as well encourage investment.

Ayodele and Obafemi (2015) examined the fiscal and quite fiscal effect of the parallel premium in Nigeria using error correction model. Result reveals that the politics of exchange rate behavior causes a stock due to overvalued exchange rate resulting the departure of exchange rate parallel premium to the equilibrium. They concluded that unification of real and effective exchange rate with block market exchange rate will prevent necessitation depression and instability in the economic system.

Patimi (2014) examines the impact of exchange rate variation and insurance business in Nigeria from 1988 – 2010 using ordinary lest square technique result insurance business in Nigeria impacted significantly on GDP balance of payment position and inflation in Nigeria based in the finding, the researcher concluded that diversification of productive base and employing realistic exchange rate will promote expert and discourage import. Hence, monetary authorities should keep their hands on the deck to stabilize exchange rate and improve GDP.

Ismaila (2016) examine insurance business in Nigeria depreciate and its impact on Nigeria economic growth during the sap and post SAP peiod (1986 – 2012) using Johansson cointegration test and error correction model. Result shows that insurance on business in Nigeria have a significant impact on output performance in the long run while exchange rates has direct and non-significant on Nigeria economy in both short and long run. This implies that exchange rate depreciation during SAP his no robust effect on GDP and advised that policy makers shows not only rely on exchange rate depreciation but use policy instrument to induce economic growth but should use it to compliment other macro-economic variables such as monetary and fiscal policies.

Akinlo and Zawal (2012) examine the impact of insurance business in Nigeria on industrial production in Nigeria from 1988 – 2010 using vector error correction model (VECM) finding confirm a long run relationship between industrial production index and insurance business in Nigeria meaning that insurance business in Nigeria depreciation had no perceptible impact on industrial production in the short run but had a positive impact in the long run.

Azeez Kolapo and Ajayi (2012) examined the effect of insurance business on macro-economic performance of Nigeria from 1986 – 2010 using ordinary least square. The model used real GDP as dependent variable while insurance business, exchange rate BOP and oil revenue was used as independent variable. Result reveals that oil revenue and BOP exert a negative effect while change rate variability and insurance business in Nigeria contributes positives to GDP in long run. They recommended that monetary authorities should pursue policies that would curb inflation and ensure stability of exchange rate.

3. Methodology

Research Design

The researcher used exposit facto design. This is the type of design involving events that have already taken place. Onwumere (2009) states that data already existing are used since there will be no attempt to control or manipulate the variables. The variables are noted with exposit facto. Hence, a set of regression will be applied on the three hypotheses with the aim of measuring the impact business environment on the performance of insurance business in Nigeria.

Model Specification

In this study, a stock flow model of Kiguel and O'connel (1994) was adopted. Also, the model used by Degafe (2001) was integrated model used by pinto (1991) was high lightened and finally, model used by Ismaila (2016) was re-modified. The model used by (Ismali (2016) was

$$LRGDP_1 = B_0 + B_1 LMz_1 + B_2 LEXR_1 + B_3 LNINS_1 + B_4 LINF_1 + B_5 L79 + e$$

where LRGDP = Real Gross Domestic Products

LM2 = Broad Money Supply

LEXR = Exchange rate

LTGE = Total government expenditure

INS = Insurance business

INF = inflation rate

Then, the model for the study is derived by modifying the above model so that insurance business will be endogenized in the independent variable. However, the researcher adopted and modified the above model.

Thus:

$$FPIC_t = B_0 + B_1 LM2 + B_2 REER_1 + B_3 CDS_1 + B_4 INTR_1 + B_5 Inf_1 + e_t$$

Where FPIC = Financial performance of insurance industry

M2 = Broad money supply

REER = Real effective exchange rate

CPS = Credit to the private sector

This was specified more as

$$FPIC_{x,t} = B_0 + B_1 M2_t + \dots e_t$$

$$FPIC_t = B_0 + B_1 REER + \dots e_t$$

$$FPIC_t = B_0 + I NFR_t + \dots e_t$$

$$FPIC_t = B_0 + INFR_t + \dots e_t$$

INF = inflation rate

INF = interest rate

e = Error terms/Disturbance term

B₁, B₂ B₃ B₄ B₅ = Coefficient of the parameter estimates

B₀ = intercepts of the coefficient.

4. Data Presentation and Analyses**4.1 Data Presentation**

YEAR	FPIC	REER	M2	INFR	INTR	CPS	FPICGR	M2GR	CPSGR
1981	66	0.61	14.47	21.4	6	8.57	6.060606	9.836066	9.122322
1982	70	0.67	15.79	7.2	8	10.67	-78.1429	7.462687	12.03293
1983	15.3	0.72	17.69	23.2	8	11.67	223.5294	5.555556	13.68005
1984	49.5	0.76	20.11	40.7	10	12.46	-83.0303	17.10526	10.8901
1985	8.4	0.89	22.3	6.3	10	13.07	394.0476	126.9663	6.726457
1986	41.5	2.02	23.8	11.8	10	15.25	259.759	99.0099	15.84034
1987	149.3	4.02	27.57	34.2	12.75	21.08	-0.06698	12.93532	39.13674
1988	149.2	4.54	38.36	49.1	12.75	27.33	-16.622	62.99559	19.65589
1989	124.4	7.4	45.9	7.8	18.5	30.4	181.1897	8.648649	15.1634
1990	349.8	8.04	52.86	12.2	18.5	33.35	7.604345	23.25871	42.64094
1991	376.4	9.91	75.4	44.6	15.5	41.35	-90.5951	74.57114	47.36074
1992	35.4	17.3	111.11	57.1	17.5	58.12	-120.847	27.45665	48.80749
1993	-7.38	22.05	165.34	29.3	26	127.12	-147428	-0.72562	39.28269
1994	10872.8	21.89	230.29	10.7	13.5	143.42	-15.1782	0	25.53302
1995	9222.5	21.89	289.09	7.9	13.5	180	-21.556	0	19.63402
1996	7234.5	21.89	345.85	18.9	13.5	238.6	38.49748	0	19.49689
1997	10019.6	21.89	413.28	12.9	13.5	316.21	6.513234	0	18.11605
1998	10672.2	21.89	488.15	14	13.5	351.96	-53.5578	323.4354	28.84359
1999	4956.4	92.69	628.95	15	18	431.17	69.84101	10.16291	39.67088
2000	8418	102.11	878.46	17.9	14	530.37	46.47422	9.626873	44.49377
2001	12330.2	111.94	1269.32	8.2	20.5	764.96	14.25524	8.066822	18.64305
2002	14087.9	120.97	1505.96	5.4	16.5	930.49	94.43991	6.935604	29.67941
2002	27392.5	129.36	1952.92	11.6	15	1096.54	7.135895	3.200371	9.160642
2004	29347.2	133.5	2131.82	12.5	15	1421.66	29.30024	-1.01124	23.73981
2005	37946	132.15	2637.91	13.7	13	1838.39	2.999526	-2.64851	43.97421
2006	39084.2	128.65	3797.91	10.8	16.5	2290.62	105.316	-2.19199	35.00583
2007	80246.1	125.83	5127.4	12.2	15	3680.09	49.28252	-5.77764	56.18442
2008	119793.4	118.56	8008.2	13.1	15	6941.38	6.843365	25.57355	17.51842
2009	127991.3	148.88	9411.11	10.67	13	9147.42	14.50825	0.953788	17.25439
2010	146560.6	150.3	11034.94	10.67	12.45	10157.2	18.41388	2.328676	10.30862
2011	173548.1	153.8	12172.49	8	13.65	10660.07	0	-27.5748	0
2012	173548.1	111.39	12172.49	9	12	14649.28	0	6.670258	0
2013	173548.1	118.82	12172.49	12.3	12	15751.84	0	6.968524	0
2014	173548.1	127.1	12172.49	12.8	12	17128.98	0	-0.81039	0
2015	173548.1	126.07	12172.49	13.1	13	17149.6	0	3.13318	0
2016	173548.1€	130.02	12172.49	16	12	18210.12	-100	-100	-100
2017	173548.1€	130.02	12172.49	16	12	18210.12	-100	-100	-100
2018	173548.1€	130.02	12172.49	16	12	18210.12	-100	-100	-100
2019	173548.1€	130.02	12172.49	16	12	18210.12	-100	-100	-100

Source: CBN Statistical Bulletin (2016)

From the data above, FPIC represent the financial performance of insurance industry in Nigeria. A look at the data of FPIC suggests that insurance companies' performance had a financial disturbance in 1993 where negative figure was recorded. The researchers want to know the influence of business environment on the performance of insurance industry in Nigeria.

4.2 Data Analysis

Table 4.2.1 Table showing stationary properties of the data set using augmented dickey fuller test of unit root.

Variables	ADFSTAT	CRD5%	P.V	Speci	Remark
LNFPIC	-3.6525	-3.5485	0.0400	1(1)	Stationary
LNREER	-5.5487	-3.5485	0.0004	1(1)	Stationary
LN M ₂	-3.8538	-3.5688	0.0270	1(1)	Stationary
LN CPS	-9.6608	-3.5485	0.0000	1(1)	Stationary
INTR	-9.0661	-3.5485	0.0000	1(1)	Stationary
INFR	-6.4882	-3.5578	0.0000	1(1)	Stationary

Source: Own computation (2020)

From Table 4.2, the data tested the stationary properties of the variables and confirmed that it is stationary at order one. The augmented dickey fuller test is used to test whether the variable has a unit root. Therefore, analyses from the review confirm that there is unit root on the variable at (1). Hence, when there is unit root at order, one, it means that the variables are all stationary and ADF statistics is more negative and significant than critical value (a) 5%.

Table 4.2.2 Table Showing Descriptive Statistics

	CPSGR	FPIC	FPICGR	INFR	INTR	M2	M2GR
Mean	18.82214	48302.55	-4067.542	17.28444	13.87778	3439.367	20.61438
Median	18.37955	10345.90	6.286920	12.65000	13.50000	558.5500	6.802931
Maximum	56.18442	173548.1	394.0476	57.10000	26.00000	12172.49	323.4354
Minimum	-100.0000	-7.380000	-147427.9	5.400000	6.000000	14.47000	-100.0000
Std. Dev.	25.77066	67795.42	24576.27	12.64452	3.715267	4779.218	62.94398
Skewness	-2.598043	1.082934	-5.746894	1.794127	0.750534	1.069974	3.214805
Kurtosis	13.67383	2.403793	34.02742	5.279718	4.931853	2.381081	16.48755
Jarque-Bera	211.3951	7.569676	1642.212	27.10902	8.977888	7.443655	334.8808
Probability	0.000000	0.022713	0.000000	0.000001	0.011232	0.024190	0.000000
Sum	677.5971	1738892.	-146431.5	622.2400	499.6000	123817.2	742.1176
Sum Sq. Dev.	23244.44	1.61E+11	2.11E+10	5595.935	483.1122	7.99E+08	138668.1
Observations	36	36	36	36	36	36	36

Source: Own computation (2020) E-view 9.0

From the above table, it shows the descriptive statistics of the data; the mean and median of the above data show the aggregative tendency of the data as well as the spread. The maximum and minimum shows the dispersion surrounding the mean in the data set. The standard deviation and variance of the data shows how the data departs from the normal series. Normality test is captured by the skewness and Kurtosis. LNFPIC and LNREER Skewed to the left while all the variables are leptokurtic meaning that they are not complexity peaked. The data are normally distributed because it was normally to 3.0. Hence, the observation is 36 which are good in giving economic result.

Table 4.2.3 Table Showing Regression

Dependent Variable: FPICGR

Method: Least Squares

Date: 21/08/20 Time: 12:09

Sample: 1981 2020

Included observations: 36

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	46148.93	15684.70	2.942289	0.0062
M2GR	27.05285	63.28718	0.427462	0.6721
REER	110.8372	72.58678	1.526961	0.1372
CPSGR	145.7809	161.2098	0.904293	0.3730
INTR	-4290.403	1064.130	-4.031842	0.0003
INFR	-88.02608	317.4337	-0.277305	0.7834
R-squared	0.989234	Mean dependent var		-4067.542
Adjusted R-squared	0.987440	S.D. dependent var		24576.27
S.E. of regression	20745.64	Akaike info criterion		22.86907
Sum squared resid	1.29E+10	Schwarz criterion		23.13299
Log likelihood	-405.6433	Hannan-Quinn criter.		22.96119
F-statistic	3.823734	Durbin-Watson stat		1.971059
Prob(F-statistic)	0.008473			

Source: E-view 9.0

From the data above, this analysis was done using financial performance of insurance companies as the dependent variable and using ordinary least square as the methodology. The analysis was carried out on 08/16/2017 using a sample of 1981-2016. That companies of 36 observations. The result predicted that reel effective exchange rate, CPSGR, M2GR has a positive and significant impact to the financial performance of insurance in the performance of insurance company is caused by 111,142 and 37% increase respectively. Therefore REER, CPSGR, M2GR impact positively to the performance of insurance companies in Nigeria. INFR, INTR has a negative 88%, and 4290% reduction to financial performance of the insurance companies but the increase is statistically non-significant, significant and non-significant as reflected in the probability value of 0.3% and, 0.80 respectively.

From the regression analysis, the R_2 is 0.39% showing that the explained variation in the variable is low while the unexplained variable is very high. Also, the adjusted R_2 shows that the model private all owners if other variables are to be added. The probability of the F statistics is statistically significant because it is less than 5% critically value by the only problem is that the regression test is auto correlated because the Dublin Watson statistics is less than 2, when there is auto correlation, there is specification base and the result will be unreliable.

Summary of Findings

The findings from the specific objective of this study are as follows:

- i. Real and Effective Exchange Rate positively and significantly affect the Financial Performance of Insurance Companies in Nigeria.
- ii. Broad money supply negatively and non-significantly affects the Financial Performance of insurance Companies in Nigeria.

- iii. Inflation rate negatively and non-significantly affect the Financial Performance of Insurance Companies in Nigeria.
- iv. Interest rate negatively and significantly affects the Financial Performance of Insurance companies in Nigeria.
- v. Credit to the Private Sector positively and non-significantly affects the Financial Performance of Insurance Companies in Nigeria.

Conclusion

This work studied environment risk impact on insurance performance in Nigeria. Insurance as a financial system is getting practically popular with economic development experts. The theoretical and empirical issues concerning insurance and business macro-economic factor helps to increase financial industry and also the financial system. Undoubtedly, Business environment in Nigeria strongly affect the countries financial development and play a significant role in the development of the financial system and economic growth. Business environment help to provide growth in the financial outlet, development in money and capital market and increase in the level of insurance indemnification of policy holders at the event of loss. The knowledge of the review summary in the study attempt to fill the gap of the study by studying the influence of the business environment on the financial performance of insurance. The real effective exchange rate and credit to the private sector has a positive response to the financial performance of insurance while brood money supply, inflation rate, interest rate has a negative response on the financial performance of insurance industry in Nigeria. Hence, these variables are the environmental factors which insurance managers should strategically be conscious of whenever they are planning and forecasting future insurance business in Nigeria.

Recommendation

In line with the specific objective of the study, the following are the recommendations

- i) Government should endeavor to regulate the activities of exchange rate fluctuations so as to enhance suitable environment where insurance intermediation will thrive
- ii) Financial development such as increase in brood money supply and sectional allocation of commercial bank credit to the private sectors will be encouraged so as to increase the financial performance of insurance in Nigeria.
- iii) Monetary authorities should endeavor to combat constructively the effect of inflation, regulate inflation rate so that private sectors will patronizes insurance sector policies effectively.
- iv) Insurance industries should create more awareness about insurance business and pay genuine claims without undue delay. Also regulate interest rate so that private sectors will patronizes insurance sector policies effectively
- v) Conducive environment of business will enhance financial liberalization and GDP expansion through private sector credit. Therefore, the government should ensure that the financial systems are safe for attraction of foreign investors. This will attract foreign direct investment and promote local content initiatives.

References

- Adeyemi, M. (2005). An overview of insurance act of 2003, issues in merger and acquisition for the Insurance Industry. NIA 2005 Merger and Acquisition Proceedings.
- Aneke, J.I. (2006) Principle and Practice of Insurance, Enugu: Hipuks Additional Press,
- Adowole, A. (2010) Predicting Insurance Investment- A factor Analytic. Approach. *Journal of Mathematical Science Publication* 6(3).
- Adelowokan, M. (2012). An Overview of Insurance Act of 2003, Issues. in Merger and acquisition for the Insurance Industry. NIA 2005 Merger and Acquisition Proceedings.
- Adua, G. Marbuah, G. and Mensah, J. (2013) Financial Development and Economic Growth Ghana. Does the Measure of Financial Development Matter? *Review of Development Finance* 3, 192-203.
- Aghion, P. and Howitt P. (2009) The Economic of Growth. MIT Press Cambridge Massachusetts, USA.
- Agbamuche, L.Y. (2012) Insurance Industry and Capital Development. *CBN Publication*, 18 (22), 224-240
- Al-fakai, B. (2006). The Insurance Industry and Nigerian Economy, Light does not Shine in Light. *Journal of Economic Survey* 22(3), 77-85
- Akpan, H. and B.C. Atan (2011). The Effect of Exchange Rate Movements on Real Output Growth in Nigeria. *CICA Journal*, 3 (5),120-132
- Amadeo, K. (2017) The Effect of Export and Import on the Economy. Economic brief USA.
- Ayodele O. S. (2006) Quasi Fiscal effect of the Parallel Market Exchange rate Premium in Nigeria. AERC, Naria Obi, Kenya.
- Ayodele O. S. and Obafemi F.N. (2015) Fiscal Effects of Parallel premium of Exchange in Nigeria. The financial and Technical support of AERC Nairobi, Kenya.
- Aurther, J. (2016) Real Exchange Rate Misalignment and Economic Growth in Developing countries. Forth Hays State University pp 57 – 72.
- Azeez, B. A. Kolopa, F.J and Ajayi, I.B. (2012) Effect of Exchange Rate volatility on Macro Economic Performance in Nigeria. *Interdisciplinary Journal of Cotemporal Research in Business* 4(1) 149 – 155.
- Bakong, M.L. (2015) Effects of Financial Deepening on Economic Growth on Kenya. *International journal of Business and Commerce* 3(8) 795-801
- Boon, B.D (2015) An Empirical Analysis of the Parallel Foreign Exchange Market The case of Vietnam. *Journal of Griffith Business School, Queen and Australia* 23(3) 302-310.
- Banjo, K.A. ((1995) Principle and Practice of Insurance, Lagos: Dekimban Ventures Ltd,
- Chilekeze L. (2010) Repositioning Insurance Industry for a Prosperous Future. Future Summit 2008, Transcorp Hilton Hotel Abuja.
- Elbadawi (1999) Exchange Rate Variation and Macroeconomic Performance of Nigeria. AERC Research papers.
- Eze, M and Okoye, C. (2013). The Contribution of Insurance Industry to Gross Domestic Product in Nigeria from 1985-2008. Research project Dept. of Economics, Caritas University, Enugu
- Falegan, J.I. (1991) Insurance; An Introductory text, University of Lagos Press. Lagos State.
- Hasis, P. and K,sumeji (2006) The Relationship of Insurance and Economic Growth in Europe. A theoretical and Empirical Analysis, JEF vol. 35(4).
- Irukwu, J.O. (1991) Insurance law and Practice in Nigeria. PTF Edition Ibadan, Canton Press West African Limited.
- Ismaila, A. M. (2016) Exchange Rate Depreciation and Nigerian Economic Performance after Structural Adjustment Era. *NG Journal of Social Development* 5(2).
- Irukwu, J.O. (1991) Insurance law and Practice in Nigeria. PTF Edition Ibadan, Canton Press West African Limited.
- Imosi, B. Uzoma A. and O.Olatiniji (2010) Analysis of Global Advance Research. *Journal of management and business studies* 2(1), 88-100
- Jegede M. (2005) A comprehensive Analysis of Insurance Act of 2003 and Its Implication on Business Environments. Issues of Merger and Acquisition. NIA Proceeding and Workshop on Merger and Acquisition.
- Jimoh A. (2006) The Effect of Trade Liberalization on Real Exchange rate. Evidence from Nigeria *Journal of Economics Cooperation* 27(4). *Journal of Apple Economic Resources* 2(1) Economic Times Brief (2017) foreign Exchange Reserve. Friday May 17 2017.
- Kiprop, A. et al (1999) Real Exchange Rate and Agricultural supply Response in Perennial Crops. *AERC Research paper* 18.

- Mekneon, R.I. and T.G. Shaw, (1973) Money and Capital in Economic Development. Washington DC, Brookings Institution.
- Madukwe D.O. and N.S. Obi-Nweke (2015) Empirical Evidence of Nigeria Insurance Business Capital Market and Economic Growth. *International Journal of Innovation and Scientific Research* 64(2).
- Mordi, O. (1990) Marketing Insurance Industry towards better Public Image. A paper presented at the 17th conference of the African Insurance Organization, Abuja, Nigeria.
- Mojekwu, J.N. Agwuegbo S.A. and Olawokudjo (2011). The Impact of Insurance Contribution on Economic Growth in Nigeria. *Journal of Economics and International finance* 3(7), 210-234.
- Nwite S.C. (2004) Element of Insurance. Enugu: Immaculate publication Ltd.
- Ndebbia, J E. (2004). Financial Deeping Economic Growth and Development Evidence from Selected sub-Sahara African countries. *African Economic Research Consortium (AERC) Research Paper* 042.Namabi
- Nkuranzizi, J. D. (2002) Exchange Rate Policy and Burundi. AERC Research Paper 123.
- Nwamba, C.B, (2010). Contending with the Challenges and Imperatives of Marketing Insurance Services in a Sub-Sahara African Country: The case of Nigeria. *Journal of Economics and Business Sciences*, 2(1), 22-34.
- Nwankwo I.C. (2011) Exchange Rates Devaluation in an Oil Economy. The Case study of Nigeria. *CBN Economic and Financial Review*, 2(4).
- Nwite S.C. (2004) Element of Insurance. Enugu: Immaculate publication Ltd National Insurance Association (2014)
- Okonkwo, V.I. (2002). Basic Principles and Practice of Insurance, Enugu: Hosanna Publication.
- Oduola Y and Akinlo T. (2013). Insurance Development and Economic Growth in Nigeria, 1986-2010. *Journal of Economic and International Finance* 5(5),99-120.
- Okonkwo, V.I. (2002). Basic Principles and Practice of Insurance, Enugu: Hosanna Publication.
- Okeke, A. K. (2010). The Impact of Insurance Activities on Economic Growth in Nigeria, *Proceedings of International Conference on Research and Development*. 2(21), 24-27, University Nationale Du Benin Cotonou, Republic of Benin.
- Onyeiwu (2010). Do Insurance sector growth and reform affect Economic Development? Empirical Evidence from Nigeria. *Journal of Apple Economic Resources* 2(1).
- Osakwe, C.J. (2015) Effect of low Insurance image on the rural dwellers. *JEC publication* 3(6), 68-79.
- Orji,M.O (2012) Insurance Sector Development and Economic Growth in Nigeria. *African journal of Business Management* 6(23), 160-170.
- Patrick L. (2014) Foreign Exchange Market and Economic Growth in an Emerging Petroleum Based economy. Evidence from Nigeria Electronic copy Available at <http://assrn.com/abstract=14415362>.
- Orji, J. (2001) Seminar in Finance. Splash Media Publication Enugu.
- Obi, M.N. Obada, A and Abu, A. (2010) Overview of exchange rate movement in Nigeria from 1986 – 2005. *CBN Statistical Review* 30 (3)
- Patimi, E. (2014) Exchange Rate Variation and Macro Economic Performance of Nigeria. *International Journal of Arts and Humanities* (2), 24 – 36.
- Patrick, H.T. (2016) Financial Development and Economic Growth in Underdeveloped Countries. *Journal of Economic Development and Cultural Changes* 14, 174 – 189.
- Shohande, O.A and Odeleye, A.T. (2015) Long Run Effect of Exchange Rate Policy on Economy. A case of Nigeria. *Development Country Studies*, 5(13).
- Sanusi, (2012) Exchange rate Depreciation, Budget deficit and Inflation, Nigerian Experience, *AERC Research Paper* 26.
- Udoh, G.O. and Egwaoklinele I.N (2008) Exchange rate Depreciation, Budget deficit and Inflation, Nigerian Experience, *AERC Research Paper* 26.
- Ugadu, S.E (1985) Roles of Insurance in National Development. *International Journal of Economic Development* 10 (73), 200-210.
- Usman, O. A. (2004) The Effect of Foreign Exchange Regimes on Industrial Produce in Nigeria. *Global Advanced Journal of Economics, Accounting and finance* 1, 1-8
- World Bank (2011) World Development Report
- Wadllamanti K.C. (2008). Do Insurance sector growth and reform Affect Economic Development? Empirical Evidence from India.