



INSURANCE SECTOR DEVELOPMENT AND ECONOMIC GROWTH: EVIDENCE FROM EMERGING MARKETS

Omoruyi-Aigbovo, Osariemen

Department of Insurance, University of Benin, Benin City, Edo State, Nigeria

Orobator Benecdita

Department of Insurance, University of Benin, Benin City, Edo State, Nigeria

Abstract

This study empirically investigates the effect of insurance sector development on economic growth in ten selected emerging markets. The countries selected include Nigeria, South Africa, Indonesia, Colombia, Turkey, Latvia, Mexico, Argentina, Costa Rica and China. The study utilizes descriptive statistics, correlation analysis and pooled OLS regression for the period 2016-2020. The empirical findings of the univariate analysis revealed that insurance sector development has a positive and not statistically significant impact on growth in the selected emerging markets. Hence, insurance sector development does not stimulate economic growth in the selected emerging markets. The study recommends that will improve the coverage and penetration of insurance market through developing the supply chain to capture the critical mass population should be implemented. Also, the insurance companies in the selected emerging countries should continue to create public awareness for their products through the use of seminars, conferences and advertisements to stimulate the interest of the citizens on the importance of buying insurance products which will ultimately enhance the growth of the economy.

Keywords: insurance sector development, economic growth, gross premium, correlation analysis, emerging countries

1. Introduction

Insurance is one of the cornerstones of modern-day financial services sector. In addition to its traditional role of managing risk, insurance market activity, both in terms of intermediation and provision of risk transfer and indemnification, may promote growth by allowing different risks to be managed more efficiently, promoting long term savings and encouraging the accumulation of capital, serving as a conduit pipe to channel funds from policy holders for investment opportunities, thereby mobilizing domestic savings into productive investment (Skipper, 1997 & Arena, 1998). Development of the insurance industry which is an important part of the financial system contributes to the process of financial sector development and economic growth because the insurance sector provides risk transfer and compensation thus managing different risks effectively. Hence,

insurance sector accelerates capital accumulation and directs domestic savings to investment (İlhan&Taha, 2011).

With potential growth prospects in the insurance markets of emerging countries, insurers see emerging economies as presenting significant opportunity for growth and profitability. Premium growth in developing countries has been outpacing growth in industrialized countries. Swiss sigmareport (2018) on world insurance markets reported that premiums in emerging countries rose 10.3 percent in 2017, after adjusting for inflation, following a 13.7 percent rise in 2016, reflecting strong growth in life premiums in China. Growth in developing markets outpaced growth in advanced markets, where premiums decreased by 0.6 percent in 2017 after falling 0.3 percent in 2016. Emerging markets accounted for 21.9 percent of

total global premium volume in 2017, up from 19.7 percent in 2016.

Swiss Re identifies emerging markets as countries in South and East Asia, Latin America and the Caribbean, Central and Eastern Europe, Africa, the Middle East (excluding Israel), Central Asia, and Turkey. Emerging market premiums rose to \$1.1 trillion in 2017 from \$939.5 billion in 2016, driven by a strong increase in the life sector. Life sector premiums grew 13.8 percent in 2017, after inflation, compared with 17.1 percent in 2016. Nonlife sector premiums saw 6.1 percent growth in 2017, adjusted for inflation, down from 9.8 percent in 2016.

There are several empirical studies which focus on relationship between financial development and economic growth in emerging markets, however, majority of these studies focus on the relationship between stock market and economic growth or banking sector and economic growth. On the contrary, there are not many studies about the relationship between insurance sector development and economic growth in emerging countries when compared to that of stock market and economic growth or banking sector and economic growth. The number of empirical studies on the relationship between insurance sector development and economic growth is relatively few for emerging insurance markets. Indeed, most existing studies on insurance-growth nexus have focused on the developed countries. Hence, this study will add to the few empirical studies that investigate the relationship between insurance sector development and economic growth using recent data of ten emerging markets. Also, prior empirical studies on the insurance-growth nexus have produced conflicting results. For instance, researchers such as Haiss and Sumegi (2008); Arena (2008); Marijuana et al., (2009); Njegomir and Stojic (2010); UI-Din, Abubakar and Regupathi (2017) found that insurance had positive and significant impact on economic growth. However, study by Omoke (2011) showed that insurance had no significant effect on economic growth. Hence, this study intends to fill these gaps in literature by carrying out a cross country study on the insurance-growth nexus in emerging markets.

The objective of this paper is to assess the relationship between insurance sector development and economic growth in emerging markets. Following this introduction, the remaining part of the study is structured as follows: Section two presents the literature review. The methodology of the study is discussed in section three. Data analysis and interpretation of results is the main thrust of section four while section five draws up policy recommendation and conclusion.

2. Literature Review

2.1 Review of Empirical Literature

Brown, Chung and Frees (2000) applied a pooled cross-sectional panel model to motor vehicle and general liability insurance in the OECD over the 1986 to 1993 periods. They analyzed liability insurance consumption on a variety of factors, including income, wealth and legal system. Income and the legal system are positively correlated with insurance consumption while loss probability and wealth are negatively correlated with insurance consumption.

Zurbrugg (2000) examines the short and long-run dynamic relationships between economic growth and growth in the insurance industry for nine OECD countries. This was achieved by conducting a co-integration analysis on a unique set of annual data for real GDP and total real premiums issued in each country from 1961 to 1996. Causality tests were also conducted, which account for long-run trends within the data. The results from the tests suggest that in some countries, the insurance industry Granger cause economic growth and in other countries, the reverse is the case. Moreover, the result indicates that the relationships are country specific and any discussion of whether the insurance industry does not promote economic growth will be dependent on a number of national circumstances.

Webb, Grace and Skipper (2002) examine whether banks, life and non-life insurers individually and collectively contribute to economic growth by facilitating the efficient allocation of capital using revised Solow-Swan model of economic growth. They use cross-country data for 55 developed and developing countries, excluding ex-communist European economies, for the period 1980-

1996. In addition to average penetration of life and non-life insurance, as explanatory variables for GDP per capita growth, they use average growth rate of capital stock per capita, average penetration of banking activity, average level of exports as a share of GDP, average government expenditure share of GDP, natural log of initial real GDP per capita and data on proportion of the population over 25 who have completed primary school. They found that the exogenous components of banking and life insurance penetration are robustly predictive of increased productivity. Synergy between banks and insurers exists, which indicates that banks and insurers collectively provide greater benefits than it would be by summing their individual contributions. Additionally, they found that there is no link between economic growth and non-life insurance. Economic growth affects life insurance penetration while it does not predict banking development.

Kugler and Ofoghi (2005) use the components of net written insurance premium to evaluate a long run relationship between development in insurance market size and economic growth by using Johansen's Trace and max cointegration tests. In addition, they use Granger causality tests with disaggregated measures of specific classes of long-term and general business insurance for the United Kingdom. Disaggregated data for long-term insurance includes yearly and single premium (including life insurance, annuities, individual pensions and other pensions) for the period 1966-2003 and for general business insurance, includes motor, accident and health, liability, property, pecuniary loss, reinsurance and MAT (Marine, Aviation and Transport) for the period 1971-2003. For most of variables and for at least at 5% level of significance, co integration tests confirmed long run relationship between development in insurance market size and economic growth. Causality tests' results show for eight out of nine markets (the exception is pecuniary loss insurance) that the long run relationship between insurance market size development and economic growth is present rather than that there is cyclical effect. In the short run, growth in life (both yearly and single premium), liability and pecuniary loss insurance causes economic growth.

Haiss and Sumegi (2008) examine the impact of insurance on economic growth, measured by GDP, on the sample of 29 countries belonging to the European economic region. The countries used in the analysis are EU-15, Norway, Switzerland, Iceland, New EU Member States and EU membership candidates (Turkey and Croatia). From the EU Member states Lithuania was omitted due to lack of data and only few data was available for Croatia and Latvia. They used a panel data for the period 1992-2005. Real GDP was used as the dependent while the explanatory variables includes gross premium income (three separate variables for total, non-life and life premium) calculated in constant year 2000 prices and US Dollars, physical capital stock at constant year 2000 prices in constant 2000 US Dollars per employee and human capital stock constructed as index using weighted employee education figures and R&D expenditure, interest (10-year government bond yields, secondary market, annual average) and inflation rate. They conducted the same tests for two country groups, one consisting of the EU-15, Norway, Switzerland and Iceland and the other pooling the New EU Member States from Central and Eastern Europe Countries and EU membership candidates (Turkey and Croatia). They found positive impact of life insurance on GDP growth for the first group of countries. For the second group, they found a larger impact of liability insurance. Additionally, their findings emphasize the impact of the real interest rate and the level of economic development of the insurance-growth nexus.

Arena (2008) investigates causal relationship between insurance market activity and economic growth using the generalized method of moments for dynamic models of panel data for 55 countries, including high, middle and low income countries, for the period 1976-2004. The researcher uses data for non-life and life insurance premiums in order to assess potentially different effects on economic growth, measured by growth in real GDP per capita. As additional explanatory variable the researcher uses private credit, stock market turnover, initial GDP per capita, openness, government consumption, inflation, human capital, and terms of trade. The result reveals that insurance market activities granger

cause economic growth. However, the results evidence different impact of life and non-life insurance on economic growth. While life insurance premiums positive effect on economic growth is driven by high-income countries only, non-life insurance premiums effect on economic growth is driven by all countries, although a large effect is found in high-income countries. Additionally, the result shows that life insurance would have a bigger impact on economic growth at low levels of economic development and non-life insurance at middle levels. Finally, he found that life insurance would have a bigger impact on economic growth if stock market development is deeper while the results for non-life insurance suggest a complementarity effect for initial and intermediate stages of stock market development.

Njegomir and Stojić (2010) examine the impact of insurance on economic growth and interaction of insurance and banking in promoting economic growth in ex-Yugoslavia region. The researchers use the country-specific fixed effects models for panel data for the period 2004-2008 allowing each cross-sectional unit to have a different intercept term serving as an unobserved random variable that is potentially correlated with the observed regressors. The research results show that insurers provide positive effect on economic growth both as providers of insurance risk management and indemnification and as institutional investors.

Omoke (2011) examine the impact insurance market activities on economic growth in Nigeria for the period 1970- 2008, the study made use of insurance density measures (premium per capita) as a measure for insurance market activity and real GDP for economic growth. It also employed control variables such as inflation and savings rate as other determinants of growth. The Johansen cointegration and vector error correction approach was used to estimate the relationship between the variables. The result reveals that the insurance sector has no positive and significant effect on economic growth in Nigeria within the period of study. Akinlo and Apanisile (2013) examine the relationship between insurance and economic growth in sub-Saharan Africa over the period 1986-2011. Pooled OLS, Fixed

Effect Model and Generalized Method of Moment Panel Model were employed in the estimation. The estimations of the dynamic panel-data results show that insurance has positive and significant impact on economic growth in sub-Saharan Africa.

Eze and Okoye (2013) examine the impact of insurance practice on the growth of Nigerian economy using the cointegration test and error correction model. Insurance premium capital, total insurance investment, and insurance sector development are used as measures of insurance development. The paper concludes that there is a significant positive effect of insurance practice on the growth of Nigerian economy

Sibindi and Godi (2014) investigate the causal relationship between the insurance sector (long-term, short-term and total insurance) and economic growth in South Africa for the period 1990 to 2012. They utilized insurance density as the proxy for insurance market development and real per capita GDP as the proxy for economic growth. The researchers then test for cointegration amongst the variables by applying the Johansen procedure and then test for Granger causality based on the vector error correction model (VECM). The results confirm the existence of at least one cointegrating relationship and also indicate that the direction of causality runs from the economy to the long-term insurance, as well as from the economy to the total insurance sector.

Ul-Din, Abu-Bakar and Regupathi (2017) examine the relationship between insurance and economic growth in 20 countries for the period 2006 - 2015. Insurance activity is measured through three distinctive proxies such as net written premiums, penetration and density. The researchers found a positive and significant relationship between life insurance, measured through net written premiums and density, and economic growth for developed countries while the same is true for developing countries when insurance is measured through penetration. The results also reveal that non-life insurance was statistically significant, for all three proxies, relationship with economic growth for

developing countries whereas, in case of developed countries, the results are only significant when insurance density is used as a proxy for insurance. Moreover, the role of non-life insurance is more significant for developing countries as compared to developed countries.

Iyodo, Samuel, Adewole and Ola (2020) studied the impact of non-life insurance industry performance on economic growth in Nigeria covering the period 1988 and 2012. The outcomes of the ordinary least square regression estimates showed that non-life insurance penetration had a substantially positive effect on the economic growth in Nigeria during the period. Profit and investments are found to have a positive effect on the economy but statistically insignificant while Savings and government expenditure has an adverse effect on the economy.

Olarewaju and Msomi (2021) examine the determinants of insurance penetration for the period 1999Q1 - 2019Q4 in 15 West African countries. The panel auto regressivedistributed lag model was used on the quarterly data gathered. A cointegrating and short-runmomentous connection was discovered between insurance penetration along with the independent variables, which were education, productivity, dependency, inflation and income. The error correction term's significance and negative sign demonstrate that all variables are heading towards long-run equilibrium at a moderate speed of 56.4%. This further affirms that education, productivity, dependency, inflation and income determine insurance penetration in West Africa in the long run. In addition, the short-run causality revealed that all the pairs of regressors could jointly cause insurance penetration.

3. Methodology

The sources of the data for this study are from the Organization of Economic Co-operation and Development Indicators (OECD) for the period 2016-2020. The study focuses on ten (10) emerging markets which are Nigeria, South Africa, Indonesia, Colombia, Turkey, Latvia, Mexico, Argentina, Costa Rica and China. The selection criteria of the time-period and country are based on data availability. The study adopts the bivariate panel data regression for its estimation

technique. The following variables were used. The dependent variable in this study is the percentage growth of GDP. For consistency, we use real GDP measured in current US dollars across the sample. The independent variable in our univariate model is the Gross premium income.

3.1 Theoretical Framework

Insurance companies perform certain functions in the context of their contribution to economic growth; these functions could be expressed as insurance, resources accumulation and their allocation with managing various financial risks and facilitation of exchange. By realization of these functions insurance companies could contribute to economic growth. Linking of financial intermediaries' functions, and thereby functions of insurance companies too, and economic growth, was enabled by the development of endogenous growth theory.

In order to show the channels through (which) financial development affects economic growth we follow Pagano (1993). According to the endogenous growth "AK" model economy produces a single good and aggregate output Y in period t is function of the aggregate capital stock K :

$$Y_t = AK_t \dots\dots\dots(1)$$

with A being marginal productivity of capital. The capital stock in the period t is

$$K_t = I_{t-1} + (1-\delta)K_{t-1} \dots\dots\dots(2)$$

with I investment that is equal to non-consumed good that depreciate at the rate δ per period. The capital market equilibrium condition requires that gross saving equals gross investment. Since one part of saving $(1-\phi)$ is lost in the process of channeling of savings to investment, the funds available for investment are:

$$\phi S_{t-1} = I_{t-1} \dots\dots\dots(3)$$

The growth rate g at time t is $g_t = (Y_t/Y_{t-1}) - 1 = (K_t/K_{t-1}) - 1$. Using equations (2) and (3) the steady-state growth rate is

$$g = A s \phi - \delta \dots\dots\dots(4)$$

with s symbolizing saving rate (S/Y).

The model shows three channels from financial development to economic growth: the marginal productivity of capital, the proportion of saving funneled to investment, and the savings rate.

The other view of the theory of endogenous growth, namely the Schumpeterian growth models, is focused on technological innovations as channel through which the growth could be affected. Therefore, we could add, to the above mentioned channels that connect financial intermediation to economic growth, another one, the rate of technological innovation. Since the insurance companies act as financial intermediaries, the same channels connect their functions with economic growth.

3.2 Model Specification

The model for the study is adapted from prior study by Haiss and Sumegi (2008), they examined the impact of insurance sector development on economic growth. Haiss and Sumegi (2008) model was specified as $GDP_{it} = \beta_0 + \beta_1 EMP_{it} + \beta_2 INSP_{it} + \beta_3 OPEN_{it} + \beta_4 INV_{it} + \mu_{it}$.

Where; GDP= Economic growth rate of real per capita; EMP= employment growth rate; INSP= the rate of increase in insurance premium payments; OPEN= openness ratio (export – import/GDP) and INV= the share of real capital investment expenditure in GDP.

3.3 Definition of Variables and Sources of Data

Table 1: Definition of Variables and Data Sources

Variable	Description	Source	Expected Relationship/sign
Growth rate of real GDP	Annual real GDP growth rate	Economic Corporation and Development (OECD)	
Gross Premium Income	Total sum of premium income from life and non-life insurance business	Economic Corporation and Development (OECD)	+

Source: Authors' compilation (2021).

4. Analysis and Discussion of results

The result of the study which includes the descriptive statistics, correlation analysis and regression analysis is presented in the section below.

We modified Haiss and Sumegi (2008) model in these study in terms of the insurance sector development indicators utilized in this study and we did not include control variables. Hence, the empirical specification of the univariate model to be estimated is as follow:

$$LGDPGR_{it} = \beta_0 + \beta_1 LGPRIM_{i,t} \dots \dots \dots (3)$$

Where i represent country (The ten countries are Nigeria, South Africa, Indonesia, Colombia, Turkey, Latvia, Mexico, Argentina, Costa Rica and China) and t represents the period (2012-2016),

The *a priori* expectations (β_1) > 0.

That is, insurance sector development is expected to be positively related to economic growth.

$\beta_0 - \beta_1$ are the parameters to be estimated and e_t is the unobserved error term. The data in this study is in log form.

4.1 Descriptive Statistics

The analysis of the results begins with the descriptive statistics. Table 2 below presents the descriptive statistics of the dependent as well as independent variable of the study. It explains the mean, median, standard deviations,

maximum, and minimum values of the 50 observations related to the 10 emerging markets selected in the study. The descriptive statistics shows that the average (mean value) of GDP growth rate is 3.72%. This shows that the selected emerging markets have been able to sustain a growth of 3 percent for the period 2012 -2016. The median value is 3.55, an indication that GDP growth rate is above the minimum average in some of the selected emerging countries, while it was below average in other countries. Clearly, real GDP growth rate exhibit heterogeneous patterns in the respective countries. The maximum value is 8.50 while the minimum value is 0.60.

This wide disparity further confirms the heterogeneous growth rates in the sampled countries over the period. The standard deviation values of 1.77 however show the heterogeneous in growth patterns across the countries during the period of study although the disparity is not too much. The skewness value is low, suggesting that growth series were centered on the mean value, while the kurtosis value is below 3 which indicate the absence of extreme values which may generate heteroskedastic patterns in the data. The J-B value is low and fails the significance test at the 5 percent level, indicating that the GDP growth rate is not normally distributed.

Table 2: Descriptive Statistics

	GDPGR	GPRIM
Mean	3.720000	14917.41
Median	3.550000	13184.50
Maximum	8.500000	54268.00
Minimum	0.600000	574.0000
Std. Dev.	1.778901	14009.51
Skewness	0.326033	1.071246
Kurtosis	2.496904	3.655561
Jarque-Bera	1.413118	10.45840
Probability	0.493339	0.005358
Sum	186.0000	745870.4
Sum Sq. Dev.	155.0600	9.62E+09
Observations	50	50

Source: Results extracted from E-views 8.0 Output, (2021).

In terms of the independent variables, the average value for insurance sector development (gross premium) is 14917.41 for the selected emerging markets. The media value is 13184.50. The median value shows some level of closeness to the mean value. The maximum value for gross premium is 54268 while the minimum value is 574. This shows there is wide disparity in gross insurance premium among the selected emerging markets. In terms of the standard deviation gross premium is 14009.51, suggesting pronounced variation across the countries over the years. The descriptive

statistics however show that the explanatory variable (gross premium) exhibit high variability, leptokurtic and significant J-B values. Hence, the exogenous variable (gross premium) is normally distributed.

4.2 Correlation Analysis

In order to examine the initial characterization in terms of the nature and degree of relationships between the variables used in the analysis, the correlation analysis is conducted. The result of the pairwise correlation matrix tests are reported in Table 4.2 below:

Table 3: Pearson Correlation Matrix

	GDPGR	GPRIM
GDPGR	1.000000	0.164199
GPRIM	0.164199	1.000000

Source: Results extracted from E-views 8.0 Output, (2021).

In the correlation results, a positive relationship is observed between growth rate of real GDP and the explanatory variable (gross premium). This implies that increases in gross premium tend to stimulate economic growth in the selected emerging markets.

4.3 Regression Analysis

Table 4: Regression result between Economic Growth and the independent variable
Dependent Variable: LGDPGR

<i>Variable</i>	<i>Coefficient</i>	<i>t-Statistic</i>	<i>Prob.</i>
Constant	-0.294496	-0.185454	0.8539
LGPRIM	0.103678	0.688832	0.4952
$R^2 = 0.46$; Adjusted $R^2 = 0.43$; $F = 15.79(0.0000)$; $D.W = 1.59$			

Source: Results extracted from E-views 8.0 Output, (2021).

A cursory examination of the results in Table 4.3 above shows a goodness of fit statistics that is not too satisfactory, for the insurance sector development (GPRIM) – economic growth (GDPGR) model. The R-Squared value of 0.46 indicates that about 46 percent of the systematic variation in GDPGR during the period is explained by the explanatory variable (GPRIM). This is further complimented by the adjusted R-Square which stood at 43 percent after accounting for the degree of freedom. Thus, the combined performance of the model including the predictive ability is low. Hence, the hypothesized independent variables can explain the variations in the dependent variable by 43 percent. On the basis of the overall statistical significance of the model as shown by the F-statistics, it was observed that the overall model was statistically significant since the calculated F-value of 15.79 was greater than the critical F-value at 1% level of significance. Thus, the hypothesis of a significant linear relationship between economic growth (proxy by GDPGR) and the explanatory variable (GPRIM) is

This study uses pooled regression analysis to empirically investigate the relationship between insurance sector development and economic growth in the 10 selected emerging markets. The Pooled Regression results of the model specified in section three is analyzed in this section. The results are shown in Table 4

validated. The Durbin Watson statistic of 1.59 indicates the absence of autocorrelation in the model. The implication of this is that the estimated equation can be relied upon in making valid inference about the influence of the explanatory variable (GPRIM) on the economic growth (GDPGR) of the selected emerging countries. On the basis of the individual statistical significance of the model, as shown by the t-ratio, the result showed that GPRIM has an no statistically significant impact on GDPGR since its t-value of 0.68 is greater than the critical t-values at 1% level of significance. Furthermore, the result also revealed that the sign of the coefficient in the regression result shows that gross premium (GPRIM) positively influences economic growth (GDPGR). This conforms to our a-priori expectation.

4.4 Discussion of Findings

The study employed the pooled regression analysis to empirically examine the relationship between insurance sector development and economic growth in 10 selected emerging markets. The findings of this study revealed

that the relationship between insurance sector development and economic growth in emerging markets was positive but not statistically significant. The import of this finding is that premiums income does not contribute significantly to economic growth in the selected emerging markets even though it has positive influence on economic growth. This might be attributed to the low level of insurance penetration in some of these markets. The result is consistent with the findings of Omoke (2011) who found a positive and insignificant relationship between insurance sector development and economic growth. However, it is not consistent with the results of Haiss and Sumegi (2008); Arena (2008); Marijuana et al., (2009); Njegomir and Stojic (2010); UI-Din, Abubakar and Regupathi (2017) who found a significantly positive relationship between insurance sector development and economic growth.

5.0 Conclusion and Recommendations

This paper examines the impact of insurance sector development on economic growth in ten (10) emerging
References

Akinlo, T., & Apanisile, O. T. (2013). Relationship between Insurance and Economic Growth in Sub-Saharan African: A Panel Data Analysis. *Modern Economy*, 5, 120 – 127.

Arena, M. (2008). Does insurance market activity promote economic growth? A cross-country study for industrialized and developing countries. *Journal of Risk and Insurance*, 75(4), 921-946.

Beenstock, M., Dickinson, G., & Khajuria, S. (1998). The relationship between Property-Liability Insurance Penetration and income: An International Analysis. *The Journal of Risk and Insurance*, 5(2), 259-272. Retrived from <http://dx.doi.org/10.2307/253327>

Browne, M. J., Chung, J. W., & Frees, E. W. (2000). International property-liability insurance consumption. *The Journal of Risk and Insurance*, 67(1), 73-90. <http://dx.doi.org/10.2307/253677>

countries using descriptive statistics, correlation analysis and pooled OLS regression for the period 2016 - 2020. On the basis of the estimated results and discussion, it is concluded that insurance sector development has a positive and insignificant impact on the growth of the selected emerging markets.

Based on the empirical findings of this study, the following recommendations are advanced for policy action:

Policies that will improve the coverage and penetration of insurance market through developing the supply chain to capture the critical mass population should be implemented in the selected emerging markets.

The insurance companies in the selected countries should continue to create public awareness for their products through the use of seminars, conferences and advertisement to stimulate the interest of the citizens on the benefits of buying insurance products which could ultimately stimulate growth in the economy.

Eze, O.R, & Okoye.V. (2013). Analysis of insurance practices and economic growth in Nigeria: Using co-integration test and error correction model. *Global Advanced Research Journal of Management and Business Studies*, 2, 63–70.

Haiss, P. & Sumegi, K. (2008). The relationship between insurance and economic growth in Europe: A theoretical and empirical analysis, *Empirica*, 35(4), 405-431.

Hussels, S., Ward, D., & Zurbruegg, R. (2005). Stimulating the demand for Insurance, *Risk Management and Insurance Review*, 8(2), 257-278.

Iyodo, B. Y., Samuel, S. E., Adewole, C., & Ola P. O. (2020). mpact of Non-life Insurance Penetration on the Economic Growth of Nigeria. *Research Journal of Finance and Accounting*, 11(2), 40 – 50.

Kugler, M., & Ofoghi, R. (2005). Does insurance promote economic growth? Evidence from the UK” In: Money Macro and Finance Research Group/ Money Macro and Finance (MMF) Research Group

- Conference 2005, 1-3September, University of Crete, Rethymno, Greece. Available from:<http://repec.org/mmfc05/paper8.pdf> (retrieved on 20/12/2018)
- Njegomir, C., &Stojić, K.(2010). Does insurance promote economic growth: The evidence from ex-Yugoslavia region.*Ekon.Misao I PraksaDbk. God XIX.* 1, 31-48.
- Olarewaju, O., &Msomi, T. (2021). Determinants of insurance penetration in West African Countries: A panel auto regressive distributed lag approach. *Journal of Risk and Financial Management*,14, 350. <https://doi.org/10.3390/jrfm14080350>
- Omoke, P. C. (2011). Insurance market activity and economic growth: Evidence from Nigeria. *Asian Economic and Financial Review*, 1(4), 245 – 253.
- Outreville, J. Francois; (1990), “The Economic Significance of Insurance Markets in Developing Countries”, *The Journal of Risk and Insurance*, 7 (3), 487-498.
- Pagano, M. (1993). Financial markets and growth: An Overview, *European Economic Review*, 37 (2-3): 613 – 622.
- Sibindi, A., &Godi, N. J. (2014). Insurance sector development and economic growth: Evidence from South Africa. *Corporate Ownership and Control*, 11(4), 530-538DOI: 10.22495/cocv11i4c6p3
- Skipper, H. D. (1997). Foreign insurers in emerging Markets: Issues and Concerns. *Center for Risk Management and Insurance*, 2, 1-72.
- Swiss Re (2017).Financial reports, and sigma, 3/2017, available at www.swissre.com/sigma.
- Ul Din, S. M.,Arpah Abu-Bakar, A., &Regupathi, A. (2017).Does insurance promote economic growth: A comparative study of developed and emerging/developing economies, *Cogent Economics & Finance*, 5, 2 – 12.
- Ward, D., &Zurbrugg, R. (2000). Does insurance promote economic growth? Evidence from OECD Countries, *Journal of Risk and Insurance*, 67(4), 489-506.
- Webb, I., Grace, M. F., & Skipper, H. D. (2002). The effect of banking and insurance on the growth of capital and output, Center for RiskManagement and Insurance, Working Paper 02-1