



FINANCIAL REGULATION AND LIFE INSURANCE FIRMS' PERFORMANCE IN NIGERIA

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Abstract

This study examines the impact of financial regulation on the Performance of Life insurance Firms in Nigeria. The study employed panel least square technique for analysing data covering the period 2008 to 2017. Data were sourced from CBN Statistical bulletin for the period. The results are in three-folds. First, Monetary Policy Rate (MPR) is found to exact negative but insignificant effect on Return on Asset (ROA). Second, leverage is found to exact positive significant influence on Return on Asset (ROA). Other variables such as Age, Size and Growth, are found to exact a positive insignificant impact on the dependent variable within the period of study. While, these findings have some policy implications for the government, it also has on stakeholders and researchers alike. Government should benchmark for best practices in monetary policy development from those economies that are more advanced in order to develop better monetary policies that can improve the performance of the insurance industry and indeed Life insurance firms' performance in Nigeria.

Keywords: *Leverage, Life Insurance, Return on Asset; Panel Regression and Performance.*

I. Introduction

The performance of insurance business is key to the growth of the entire economy and profitability which remains the measure of any business's financial performance, and is among the foremost objective an insurance firm has overtime (Burca & Batrinca, 2014). Therefore, insurance companies as intermediaries, performance is very essential in corporate finance decisions. It is vital to state that insurance firms provide distinct financial service such as, underwriting risk in businesses and mobilization of huge funds for long term investment through premiums. The insurance firm's roles of risk absorption tend to promote financial healthiness and create a sense of harmony in the economy. This therefore means those unsustainable businesses without the insurance companies, since business firms with high risk may lack the capacity to retain the high risk, in the face of uncertain and ever changing global business environment (Ahmed *et al.*, 2010).

Most assuredly, a well-developed and evolving insurance industry is a boom for economic development as it provides long- term funds for infrastructural development of every economy (Charumathi, 2012). The National Insurance Commission, the regulatory body for the Nigerian insurance sector, has therefore intensified its supervision, field visits, and has adopted a risk-based assessment of insurers' activities. All of these regulatory measures are to ensure that the financial performance of insurance companies is well enhanced for improved financial performance.

Life insurance firm's performance can be influenced by a lot of factors: both internal and external, ranging from firms size, capital, efficiency to age and ownership structure, as well as the business



environment (risks involved in life insurance business), which aid growth and competitiveness ((Buyinza et al., 2010). Insurance businesses in general, tend to be a big market. All over the world, thousands of insurance firms with huge funds employing large number of paid-workers, as well as businesses and persons under the claims benefit of the insurance companies, speaks volume (Majmudar and Diwan, 2005).

Going further by the above stated platform upon which insurance operates, the discussion on regulatory mechanisms in insurance indicates that there are many avenues through which rate regulations may distort individual insurance premiums. Many of these mechanisms—include rate suppression, rate compression and residual markets—change drivers' incentives in ways that lead to higher accident rates and higher average costs for the insurance system. However, additional regulatory mechanisms such as required safe-driving discounts may be used to mitigate these effects. Competitive responses of insurers that vary premiums with driving behaviours or claims history may also reduce or eliminate the distorting effects of rate regulations, if not prohibited by law. Thus, whether rate regulation results in any significant effects on insurance and loss costs is ultimately an empirical question. The extent to which regulation is observed to affect accident or death rates or loss costs depends both on the specific forms of rate regulation and on the sensitivity of driving and insuring behaviour to insurance prices. Also, the character and stringency of rate regulation varies among the states that regulate insurance rates. States in which rate regulation is more heavily focused on reducing premiums for high-risk insured's will introduce greater incentive distortions and should be expected to create larger impacts on accident or death rates and costs.

Several mechanisms might be used to make insurance rates affordable to the insured. Regulators may intervene in insurance markets to reduce premium levels for high-risk drivers, to limit average rate increases for all insured, and/or to reduce premium variation across individual. One widespread mechanism involve is suppressing insurance premiums for the highest risk insured and financing these lower rates through surcharges to low-risk insured. This leads to high-risk insured paying less, and low-risk insured paying more, than they would under a purely cost-based pricing system. If only a small proportion of insured in a state are high risk, or if only a small proportion of high-risk insured receive a premium subsidy, then the distorting impact of regulated pricing is likely to be insignificant. Similarly, if subsidies paid to high-risk insured are just a small portion of low-risk insured premiums, incentive distortions for low-risk insured may be minimal.

On the other hand, it is possible that regulatory intervention will lead to premium pricing that is far removed from each insured's expected loss costs. In this case, the combined effects of regulatory incentive distortions may be substantial. To the extent that they are present in a market, some distortions to insured incentives that are created by regulated insurance pricing will have the effect of increasing the expected costs of insurance relative to a cost-based system of pricing. For example, if high-risk insured premiums do not reflect their higher expected accident costs, they may be expected to purchase more insurance coverage (Blackmon and Zeckhauser, 1991; Harrington and Doerpinghaus, 1993). Similarly, because low risk insured pay relatively more for coverage, they may be more careful and perhaps choose lower insurance limits. In combination, these changes to insuring decisions would lead to an insurance pool in which high-risk insured are more heavily represented and thus to higher average insurance costs. Economic theory also predicts that the safety of investments of all insured may be diminished when premiums are not fully based on accident experience (Shavell, 1982). Similarly, regulatory pricing that weakens the links



between claim experience and insurance premiums may reduce the disincentives to filing fraudulent claims. These effects of regulation on safety and claiming decisions would lead to higher rates of accidents and claims and thus to higher average, insurance costs. Research on other insurance markets such as workers' compensation has documented a significant adverse impact of regulatory premium distortions on insurance costs.

Consequently, since there is the non existence of exhaustive empirical studies on regulation and Life insurance performance in Nigeria, the researcher deemed it fit to delve into the country specific study to establish a relationship and impact between Financial Regulation and performance of Life Insurance Firms in Nigeria.

For Nigeria, this study will add to extant literature on the subject matter and also fill the gap that exist in previous studies which has been done to establish whether there is significant impact of financial regulation on life insurance firm's performance in Nigeria. The gap anticipated is therefore, whether rate regulations that distort individual insurance premiums through rate suppression, compression, and how low risk pricing, high risk pricing of insurance can have a significant impact or not, on performance of life insurance firms in Nigeria. Also, one widespread mechanism involve is suppressing insurance premiums for the highest risk insured and financing these lower rates through surcharges to low-risk insured. This leads to high-risk insured paying less, and low-risk insured paying more, than they would under a purely cost-based pricing system. More so, previous studies only concentrated on investigating the empirical relationship between selected regulatory instrument and insurance industry performance in Nigeria. The findings of this study when added to the existing body of literature will be a valuable guide especially for policy makers, and a good source of reference for future scholarly research. One advantage of academic research is that it investigates matters which practitioners and policy makers find useful but have little or no time to study. The study is very vital especially to policy makers and development partners because it enables them to initiate, develop and manage long term economic strategic plan based on empirical evidence. This study tends to contributes to extant literature by examining the impact of financial regulation on Life Insurance Firms Performance in Nigeria, hence addressing the country's specific dimension to the insurance penetration debate.

The study is different from previous studies in scope; that is in terms of number of years covered. This study will contribute significantly to knowledge by providing new study evidence on the impact of financial regulation and performance of life insurance firms in Nigeria. To the body of academics, this study will serve as a platform for further researches in area of Regulation and Life Insurance firm's performance which this study did not cover. It is upon this platform the following research questions are raised:

- a. Does monetary policy rate impact significantly on performance of life insurance firms in Nigeria?
- b. Does firms size impact significantly on life insurance firms in Nigeria?
- c. Does firms age affect performance of life insurance firms in Nigeria?
Does growth rate affect performance of life insurance firms in Nigeria?
- d. Does leverage affect performance of life insurance firms in Nigeria?

The broad objective of study is to determine if there's significant impact of financial regulation on performance of life insurance firms in Nigeria. While, the specific objectives are put forward.



- i. Examine whether monetary policy rate significantly impact on life firms performance in Nigeria;
- ii. Determine if firm size has a positive impact on life insurance firms performance in Nigeria;
- iii. Assess if the growth rate of life insurance firms has significant effect on their performance;
- iv Establish whether leverage has significant effect on life insurance firms performance; and
- v. Ascertain if life firms age has positive effect on performance.

2. Literature Review and Theory

2.1. Concept Life Insurance

Life insurance firms refers to firms that underwrite risks involved in life policy contract. While a life insurance policy is a contract between the insurer and another party known as the policy holder, in return for a payment of premiums. The insurer will pay a predetermined amount of money known as the death benefit, upon the death of the policy holder. The amount of benefit can vary with the time death. In practice, the money will be paid immediately upon death (or more realistically, a short time after, to allow for claim processing). However, a typical life insurance provides a single benefit payment, usually paid on the occasion of death. There are types of life insurance policy.

Term insurance is a type of Life policy that provides death benefit for fixed number of years. This is more like the temporary annuity, and after the term expiration, coverage ceases and there are no more benefits. The whole life insurance that provides death benefits for life, such that some payout on the policy is certain to occur. There is also the endowment insurance which is seen as a hybrid of both insurance and annuity components. It involves a combination of both life insurance and annuity benefits in the same contract (Butt, 1985).

The term insurance could be defined in distinct dimension, one can define it in legal context and the other might define in general context. Generally, Insurance is a social device for spreading the chance of financial loss among a large number of people. The act of purchasing insurance, imply a —personll shares risk with a group of others, thereby reducing the individual potential for disastrous financial consequences. Transacting insurance includes soliciting insurance, collecting premiums and handling claims. Insurance is based on the law of large numbers in the sense that a combination of large number of homogeneous units; the insurer is able to make predictions of possible loss, calculate their probable losses and establish the rates for premiums that will cover their losses and their operating expenses. Butt (1985) describe that insurance involve covering against events that may or may not happen.

2.2. Financial Performance of Insurance Companies

According to Kasturi (2006), performance of insurance company in financial terms is normally expressed in net premium earned, profitability from underwriting activities, annual turnover, return on investment, return on equity etc. Budget variances measure the financial performance of insurance company. This performance will include both financial and non-financial performance. Financial performance for a company with branches can be divided as profit performance and investment performance. These measures can be classified as profit performance measures and investment performance measures.



2.3 Empirical Literature Review

At the front of regulation and the insurance market are (Derrig & Tennyson, 2008); (Weiss, and Regan, 2002); (Grace, Klein, and Phillips, 2002) and (Tennyson, Weiss, & Regan, 2002); which are studies on insurance market regulation. These articles use a panel annual state data on automobile insurance markets to ascertain whether or not, there is a significant relationship between distorting prices, through rate regulation and automobile insurance claims frequency and loss cost. The study period covers from 1980 to 1998 which is 18 years period in the data sample that witnessed different successions in the state regulatory periods.

Lee (1999) used penetration and density measures to carry out a study on the impact that life insurance development has on the market, and factors such as the price, product as well as regional conditions were also considered in the study. The study used the Generalized Method of Moment, considered 60 countries for the period, 1976 – 2005. The findings are that life insurance market development has a positive significant relationship with, and can be greatly influenced by prices, product demand and regional conditions such as urban areas, where wealthy people lives, and has positive relationship on insurance premium income and revenue, which promotes growth. (Hansmann, 1985) carried out a study on motivation of regulatory authorities on insurance. The study found that insured customers are like fixed-debt investors investing money into insurance firms who reinvest and return funds to the customers in the advent of certain events coming to pass. Given the incentive of insurers with limited liability to invest in high risk ventures, however the likelihood of repayment is hardly assured. This generates interest of the Regulators or the government to heavily regulate the business of insurance to safeguard the interest of the customers and holders of policy.

Omondi and Muturi (2013) focused on 29 listed firms (excluding listed banks and insurance companies) which have been operating at the Nairobi securities exchange during the period 2006-2012. The study suggests that leverage (ratio of debt-equity) has a significant negative effect on financial performance (ROA). Burca & Batrinca, (2014) study alleges that, in order to determine the factors that influence the financial performance (return on total assets ratio) in the Romanian insurance market during the interval 2008-2012, tested 13 explanatory variables: insurance financial leverage, company size, number of years since the company operates in the Romanian market, growth of gross written premiums, equity, total market share, diversification, underwriting risk, investment ratio, reinsurance dependence, retained risk ratio, solvency margin and growth of GDP per capita. The study discovered a positive relationship between size and financial performance, since larger firms have more resources, a better risk diversification, complex information systems and a better expenses management.

2.3 Theoretical Framework

2.3.1 Market Correction and Distortion Theory

Market correction is meant to correct some inequalities in the market. The regulatory authority uses tools such barriers to entry, restricts insurers' risk and investment portfolios, and limits the products and terms they can offer, Legal restrictions on investments and other transactions, and price controls. Barrier to entry through regulation ensures the correct number to support the market development is ensured and there is no overcrowding which could result to unhealthy competition in the sector: criticism against this move could also restrict competition which denies the consumers additional alternative, which lead to lower prices and quality product from alternative



sources. Furthermore, this move could deny companies to invest in more lucrative and profitable ventures that could guarantee them more returns to meet their claims and obligation. Price regulation is advocated for it ensure fair price for the insurer and customer in promoting equity and avoid over exploitation. Policy terms and product restriction and approvals by the authority ensure right products are offered in the market and protect the interest of the policy holders. However, criticism on restrictions on policy forms centres on limiting consumers' options and ability to purchase contracts that might better fit their needs and preferences. Hence the theory also falls short and inadequate as the reason for regulation of insurance industry and promoting their development. Despite having the shortcomings regulation was best suited to remedy certain market failures like high prices caused by other external forces, such as escalating claims costs. The purpose of regulation should be to correct market failures, and minimize their negative effects, and improve allocate efficiency (Spulber, 1988).

2.3.2 Market Efficiency Theory

This theory centres on factors that promote and enhance the efficiency of the market such as the flow of information into the market and the adjustments of prices and or products as the information are received in the market. When there are few companies in the market operating as cartels or monopolists, consumers don't enjoy the benefits of fair price brought in by competition. The Regulator may relax new entry, licensing rules to allow more companies to enter the market thus promoting efficiency. Regulation has the potential to both increase and decrease consumer and producer surplus. When regulation corrects significant market failures, it potentially increases social welfare. For example, if regulation reduces insolvency costs and increases consumer confidence, and these —benefits| exceed other costs imposed by such regulation, then there should be a net addition to social welfare. On the other hand, when regulation restricts consumer choice and distorts market decisions and there is no commensurate benefit to consumers, then social welfare is reduced. A common goal of most of the regulatory efforts has been the strengthening of competition within the industry and as well as the lowering of prices and the improvement of product offerings: (Mahlberg and Url, 2003 for the EU single market program).

2.3.3 Insolvency Danger Theory

Insolvency refers to the inability of the company to meet it contractual obligation on the insurance policies and contracts they have issued and entered into posing a great danger and threat to the insuring public and the industry as a whole. The insolvency danger theory, is therefore aimed on supervision on insurance companies in order to avoiding specific insolvency dangers which threaten the public and the individual as a result of insurance company collapsing and destabilizing the industry. The solvency monitoring seriously decreases the likelihood of insolvency and preserves the ability of monitoring agencies to provide early warning of problems (Mayerson, 1969).

2.3.4 Protection Theory

The protection theory attempts to deal with the arguments that assumes supervision law is a part of industrial and industrial policing law that is meant to protect the companies from assuming risks that can destroy them leading to their collapse and at the same time protecting the interest of customers and the public at large as a function of supervision and directing the industry.



3. Research Methodology

3.1. Research design

The research design adopted in this paper is the causal research design; one that determines cause and effect relationship between observed variables of interest in a research.

3.2 Sources and Nature of Data

The study used secondary Data to carry out empirical analysis and necessary data were duly sourced from Statistical Bulletin of the CBN annual Data report, it covers the 2008 to 2017 period. The study was based on panel regression data for the period. The Data set was channelled in line with empirical evidences and it consists of economic variables such as real Interest rates (RINTR), which is a measure of Financial Regulation in Nigeria. The performance variable being Return on Asset (ROA), as well as other explanatory variables such as Leverage (LEV), Age of the Firm (AG), Size of the Firm (SIZ) and Growth of the Firm (GRT), which also can influence performance of Life Insurance firms in Nigeria, were employed in the study.

3.3 Model Formulation and Specification

Model specification is the formulation of a maintained Hypothesis (Koutsyannis 2001). It involves the expression of the model to empirically explore economic phenomenon. To determine the relationship between the explained and the explanatory variables of this study, the model for the study is specified and the function capturing them is initially stated as:

$$LIP = (FRI) \dots\dots\dots 1$$

Which is a modified version of the model as specified in Iheanacho, (2018), the model of which the present study has adopted.

Where: LIP = Life Insurance Firm;s Performance serving as the dependent variable and is proxied using Return on Asset (ROA), and FRI = Financial Regulation indicator (as well as other control variables) representing the explanatory variables proxied using monetary policy rate (MPR), Leverage (LEV) , Size of the Firm (SIZE), Growth Rate (GRT) and Age of the firm (AG) . Based on the variables specified, the final regression model for testing the hypotheses and ascertaining the empirical results of the study are stated as

$$LIP_{it} = \alpha_0 + \alpha_1 MPR_{it} + \alpha_2 LEV_{it} + \alpha_3 SIZ_{it} + \alpha_4 GRT_{it} + \alpha_5 AG_{it} + \epsilon_{it} \dots\dots\dots 2$$

Where: α_0 represents the constant or the intercept of the model; $\alpha_1 - \alpha_5$: represents the coefficients of the explanatory variables to be estimated in the model; i : denotes the individual sampled life insurance firm; t : is time-period; while ϵ_{it} is the stochastic error term or disturbance for insurance i at time t .

3.4 Data Analysis Technique

In order to ascertain the degree of relationship that exist among variables, we specify a linear equation model and apply the econometric Panel Regression technique to determine the level of economic relationship that exist between the explained and the respective explanatory variables. The panel regression techniques are used in regression analysis basically because it is intuitively more appealing than other estimators.



A Priori Expectation: This is the proposed relationship between the dependent and independent variables as obtain in theory. It provides expected signs and significance of the values of the coefficient of the parameters under study on the part of empirical evidence. Hence, the apriori expectation for this study is stated thus:

$$\alpha_2, 3, 4, 5 > 0, \text{ while } \alpha_1 < 0$$

3.5 Measurement of Variables

Data was collated on annual cross sectional data basis and available only as secondary data. Life Insurance firm’s performance variable was captured as the annual value of return on asset (ROA), which is Earnings after tax to total asset. While financial regulation variable was captured as the annual value of the monetary policy rate for the period under study, Firms size was measured as the natural log of total asset value, as well as other controlled variables in the model.

4. Data presentation and Analysis

4.1 Descriptive Statistics

Table 4.1 Summary Statistic

	ROA	MPR	LEV	SIZE	GRWT	AGE
Mean	0.008958	10.15655	0.715387	6.995569	-372239.9	47.35632
Median	0.024982	11.00000	0.600165	7.059569	-10.64457	40.00000
Maximum	0.493920	14.00000	6.729878	8.253241	93.44115	172.0000
Minimum	-0.618124	6.000000	0.000791	5.395258	-32378587	1.000000
Std. Dev	0.128101	3.038756	0.772713	0.507954	3471341.	44.08712
Skewness	-0.637774	-0.103747	5.897153	0.987548	-9.165786	1.977966
Kurtosis	11.12743	1.436681	44.35125	5.712631	85.01163	6.031746
Jarque-Bera	245.3480	9.015446	6702.739	40.81522	25599.58	90.04817
Probability	0.000000	0.011024	0.000000	0.000000	0.000000	0.000000

Source: Researcher’s Computation Using Eviews (2020)

The summary statistic in Table 4.1 shows that there is wide disparity between the mean of dependent variable and the respective independent variable. Variables like MPR, LEV and AGE are skewed to the right while others are lefty skewed; Evidences abound with their corresponding positive (long tail to the right) values and negative (long tail to the left) values from the table. It also reveals that variables in the model has a relative normal distribution values, as Shown in their kurtosis values with only MPR, having a value approximately < 3, indicating a non normal distribution.

Furthermore, the table also reveals meaningful difference between minimum and maximum values of financial regulation and financial performance (of life insurance firms) variables considered in the model. The table also reveals a rather high disparity from the mean of the growth variable, with a value of 347134. However, the other variables with their respective std. Deviation values, did not exhibit wide disparity from the mean. The jarque- bera probability values of variables has a 5% and 1% significance, except for MPR. This clearly shows that variables in the model are not normally distributed.



4.2 Correlation Analysis

Table 4.2 Correlation matrix

	ROA	AGE	SIZE	LEV	GROWTH	MPR
ROA	1.					
AGE	0.329573	1.				
SIZE	0.335853	0.814279	1.			
LEV	0.205456	0.979184	0.817435	1.		
GROWTH	0.073174	0.448434	0.802770	0.503565	1.	
MPR	0.306515	0.762644	0.841796	0.769744	0.658475	1.

Source: Researcher’s computation using E-views (2020)

The correlation matrix generally, shows the direction and strength of relationship between variables. As such, from the result, Variables such as MPR and GRWTH, have a rather positive, not too strong relationship with ROA (the performance variable) in the model. This indicates that an n increase in financial regulation and growth variables respectively, will yield a corresponding increase in life insurance performance (ROA) over the period. Other variables of LEV, SIZE and AGE tend to also exact a rather positive, but strong relationship with life insurance firms’ performance (ROA) over the period. This again reveals an increase in life insurance performance even as firm’s risky asset of leverage, firm’s age and size increases in Nigeria. The matix further reveals absence of multi colinearity problem that exist between the explanatory variables in a model.

Panel Regression Estimation

Table 4.3 Random effect model

<i>Variables</i>	<i>Coefficient</i>	<i>Std.error</i>	<i>t-stat</i>	<i>Prob.</i>
C	-6.518611	0.944368	-6.902620	0.0000
MPR	0.089178	0.016597	5.373180	0.0000
LEV	-0.000597	0.000430	-1.390449	0.1681
SIZE	-1.002688	0.155657	-6.441643	0.0000
GROWTH	0.005425	0.004976	1.090152	0.2788
AGE	0.315747	0.149063	2.118207	0.0371
R – square	0.508478	F- statistic	17.37957	
Adj R - square	0.479221	Prob(F-statistic)	0.000000	
		Durbin –Watson	2.305281	

Source: Researcher’s computations Using Eviews, 2020

Table 4.4 Fixed effect model

Variables	Coefficient	Std.error	t-stat	Prob.
C	-6.518611	0.944368	-6.902620	0.0000
MPR	0.089178	0.016597	5.373180	0.0000
LEV	-0.000597	0.000430	-1.390449	0.1685
SIZE	-1.002688	0.155657	-6.441643	0.0000



GROWTH	0.005425	0.004976	1.090152	0.2791
AGE	0.315747	0.149063	2.118207	0.0374
R – square	0.508478	F- statistic	6.047836	
Adj R - square	0.479221	Prob(F-statistic)	0.000000	
		Durbin –Watson	2.305281	

Source: Researcher’s Computation Using Eviews,2020

Table4.5 Hausman test statistics

Variable	Fixed	Random	Var(Diff)
AGE	0.089178	0.089178	0.000000
GROWTH	-0.000597	-0.000597	0.000000
LEV	-1.002688	-1.002688	0.000000
MPR	0.005425	0.005425	0.000000
SIZE	0.315747	0.315747	0.000000
F- statistic	6.047836	Durbin-Watsostat= 2.305281	
Probability	0.000000		

Source: Researcher’s computation, 2021.

From the Tables above, the hausman’s test statistics shows that the random test statistic is not significant at 1% and 5% levels, hence, acceptance of the null hypothesis. As a result, the decision rule states, we accept the random test statistics results. Again, the F statistic results, which shows the overall test of significance is also higher in Random test model than in fixed test model, another reason for the choice of the Random test model.

The results reveal that MPR and SIZE of the explanatory variables are significant at the 1% & 5% significance level. The coefficient of MPR is positively signed, while that of Size is negatively signed. This meant that an increase in monetary policy rate (MPR), significantly affect Life insurance firm’s performance, proxy by ROA during the period under study. Furthermore, firm’s specific variables such as AGE and GROWTH, are also correctly signed, positive but not significant both at the 5% or 1% significance level. Leverage, which a reflection of how best life firms utilise their borrowed funds is seen to be negatively signed and not significant in the model estimation: This indicates a negative relationship between leverage and return on asset in the model estimated. This is also at variance with aprori expectations according to theory.

Furthermore, the Durbin Watson (DW) statistic of approximately 2.0 indicates absence of auto correlation, which tends towards spurious regression. The F- statistic, which shows over all goodness of fit of the variables in the model, as indicated by the probability value, is highly significant at the 5% level. This explains existence of significant relationship between all the explanatory variables and performance of Life insurance Firms in Nigeria during the period under review. However, the R-Squared as well as Adjusted R- squared value of 50 & 47%, shows there are variables that impacts positively on the dependent variable (ROA) that are absent from present study. This may be recommendation for further studies in this area. While about 50% of systematic variation is been explained by the independent variables in the model, about 50% of the



unexplained variation in ROA by the explanatory variables is being attributed to the stochastic error term in the model.

4.3 Discussion of Findings

The Financial regulation variable of monetary policy rate (MPR) and Size of the firm both conforms to Apriori expectation and also passed the significance test at 5% and 1% level respectively. This means that financial regulation (MPR) determine to a large extent the performance of life insurance firms in Nigeria during the period under review. However, under normal situation, a reduction in the monetary policy rate means more credit to be channelled to borrowers and vice versa. This would be made possible as the insurance Firms would have more liquidity to be invested because potential insured would increase. The implication is that more policies would be extended to the populace if the discount rate is less and more if the rate is reduced (Iheanacho, 2018). Also, from the result, only leverage has a rather negative, insignificant relationship with performance of Life insurance firm's proxy by the Return on Asset (ROA) over the period. This means that the more life insurance firms employ more loans and borrowed funds in their financial structure, the less returns they would get on their Asset, which is indicative of poor performance.

Furthermore, other control variables of firm age and growth though positively signed, conforms to apriori expectation but not significant at all during the period under consideration. This meant that firm's specific variables of AGE and GRWTH, does not determine performance during the period under review. Consequently, these results tend to be consistent with the studies of Omondi & Muturi (2013) and Burca and Batrinca (2014) which found a significant positive correlation between SIZE and Return on Asset (ROA).

5. Conclusion

In conclusion therefore, life insurance companies are subset of the entire insurance industry, while the insurance industry forms a major constituent of the financial sector of the Nigeria economy. Hence, this paper examines financial regulation and life insurance firms' performance in Nigeria. The result showed that there is an empirical evidence that:

- i. Leverage has a negative, non significant impact on ROA. But this result is at variance with the findings of Omondi and Muturi (2013) and Burca & Batrinca (2014) studies.
- ii. Monetary policy rate (MPR) has a positive and significant relationship with ROA during the period under review.
- iii. Size of the firm has a positive relationship with performance variable in the results, which is in consonance with the study of Omondi & Muturi (2013), Burca and Batrinca (2014) and Kazeem (2015) which found a significant positive correlation between size and performance in their respective study.
- iv. Age and Growth both had positive but insignificant impact on performance variable of ROA over the period of study. The results are not consistent with those of Omondi and Muturi (2013) and Burca and Batrinca (2014) which found a significant positive correlation between size and performance.

6. Recommendations

- a. Insurance companies should embrace leverage since this may not lead to bankruptcy and financial leverage according to present study findings remains a non-key determinant of



- performance. Also, in spite of results, the need for regulation cannot be undermined for smooth operations and financial healthiness of the financial system.
- b. Government should benchmark for best practices in monetary policy development from those economies that are more advanced in order to develop better monetary policies that can improve the performance of life insurance and the entire insurance industry total income in Nigeria.
 - c. The art of suppressing insurance premiums for the highest risk insured and financing these lower rates through surcharges to low-risk insured, thereby leading to high-risk insured paying less, and low-risk insured paying more, may not be best options for improved performance in life firms. It should therefore be otherwise, where high risk insured should pay high premiums and low risk insured, low premium in order to strike a balance, since these rates affects performance.
 - d. Size of the firm, no doubt, according to our findings affects performance. Consequently, the smaller life firms should be acquired by the bigger firms to create more effectiveness and efficiency in the industry. This will in no doubt enhance performance.
 - e. Age and growth of the firm should not be considered when doing mergers and acquisition in the industry, since they are not key determinant of performance.

Suggestions for Further Research

The study was only limited to five factors that affect the financial performance of Life insurance market in Nigeria. Thus, more research should be done to determine other factors that may affect financial performance of life insurance firms. Macroeconomic factors such as inflation rate and gross domestic product; liquidity, capital adequacy and asset tangibility are recommended for future study to reduce the chance occurrences in the present study.

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