



LIFE ASSURANCE BUSINESS AND PROFITABILITY OF INSURANCE COMPANIES IN NIGERIA

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Abstract

The study looked at the influence of life insurance on the profitability of insurance businesses in Nigeria. Secondary data on insurance business return on equity, life insurance investment, life insurance premium, and total life insurance output were acquired from the Central Bank of Nigeria (CBN) Statistical Bulletin and NAICOM Bulletin 2021. In the study, the Ordinary Least Squares Estimator (OLS) was used to forecast the link between the adopted Life insurance variables and the insurance company's profitability based on the model. The study also employed descriptive statistics and the multiple regression approach. The table demonstrates that both the overall life insurance output and the life insurance premium have considerable relationship with Return on Equity of Insurance company, while Life insurance Investment has no significant relationship with Return on Equity of insurance company Based on the study's findings, it was found that life insurance significantly affects how profitable insurance companies are in Nigeria. In order to boost the profitability of insurance companies in Nigeria, the study advised that they should invest more in worthwhile projects that will generate better proportionate returns.

Keywords: Life Insurance, Profitability, Insurance investment, Life insurance premium

Introduction

One of the deepest aims of a prudent policyholder is to ensure that his dependants are provided for, especially in the events of his premature death or permanent disability. It's important to note that life insurance companies only have one job: to support the assured's family or beneficiary in the event of the assured's untimely death or permanent disability by paying out a sum of money known as the "sum Assured."Raji (2018).. In life assurance, funds are accumulated through payments made by the assured persons, called premium so that should death occur, prior to a specific date or upon survival at an agreed period, fund would be made available from the scheme to pay whatever benefits that are due.

Life assurance is a policy that provides financial cushion for the bereaved during the early period of a sudden death of the breadwinner, this financial assistance not only gives peace of mind but also will keep the family together before making the necessary arrangements for the deceased it encourages compulsory saving through premium payment.

Profitability is a gauge of a business, relative to its expenses accrued in a period of time. A company which is more effective and efficient will realized more profits as a percentage of its expenses than a less effective and efficient company, profitability facilitate smooth inducement of the investors to acquire shares from the highest profitable company at stock exchange market ,no investors would wish to acquire liabilities rather than asset . However, in the context of life insurance, "profitability" refers to a life insurance company's capacity to make money from its operations. There are several ways to gauge profitability, including the net income and equity return of the company, return on assets, and profit margin, just to name a few. Profitability is a vital fortune for a life insurance company to experience because, it helps the business to continue operating, invest in possibilities for expansion, and give shareholders a profit. Additionally, a profitable business is better able to maintain its promises to policyholders, including as settling claims and upholding policy benefits with any unforeseen expenses.

Many financial institutions were nonetheless able to document a well-defined profit during the previous political administration, despite the level of economic volatility and political destituteness in Nigeria. The downward economic trend recently in Nigeria, affected many financial institutions which includes banks ,mortgage companies, savings and loan associations, credit union and many financial firms which insurance companies was not exceptional. In contrast



to insurance companies that operated at a lower level and recorded low turnover with weak profit margin, the majority of the aforementioned firms nevertheless continue to maintain recognizable earnings and good turnover for their industries. However, Nigerian insurance companies were working helter-skelter, attempting to turn a profit that was adequate and reasonable for the standard of the country's economy while maintaining a good turnover. However, a number of factors indirectly hampered the progress of achieving this specific goal, such as the low demand for life assurance policies, Agabi (2010) avert that the main issue facing the insurance industry was that ,many Nigerians lacked a thorough understanding of the enormous benefits and compensation that would be offered by life assurance products, and the majority chose not to support life assurance companies primarily because premiums would have to be paid on a regular basis without adequate compensation. Additionally, inadequate insurance employees, a low capital basis, substandard marketing techniques, poor insurance awareness, religious beliefs, and a low level of income earner, to name a few, all contributed to the insurance industry's weak profit generation when compared to the banking sector. Despite the significance of the nation's financial system, it is unclear whether insurance businesses would considerably boost economic growth through profitability due to the aforementioned difficulties and observations.

The study's goal is to look into the impact of the life insurance business on the financial performance of the nation's insurance companies. The stated objectives are to determine the impact of life insurance investments on the financial performance of insurance companies in the country, to examine the effect of total life insurance output on the financial performance of insurance companies in the country, and finally to assess the impact of life insurance premiums on the financial performance of insurance companies in the country. The study's scope was limited to the impact of life assurance business on the profitability of Nigerian insurance companies. However, insurance is regarded as a cooperative tool to distribute the loss brought on by a certain risk among a number of parties exposed to that risk and agreeing to insure themselves against it (Akinpelu, 2008).

Literature Review

Conceptual Review

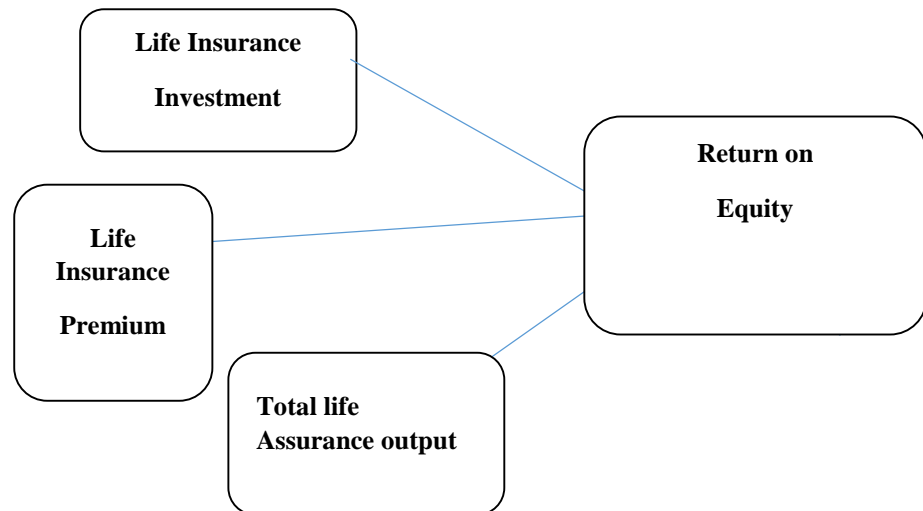
The concept of insurance in its modern form was introduced into country by the British. This and the fact that until quite recently The fact that the majority of the top insurance firms in Nigeria were either partially or entirely controlled by the British has made the theory and practice of insurance in Nigeria has to a large extent, followed the British pattern Raji, &Adegboye (2019) . According to Raji(2018), history of the insurance industry in County occurs as a result of the British colonial trading businesses that established agency offices in Nigeria on behalf of insurance corporations in the UK, this led to the beginning of insurance business in Nigeria. The first insurance company in Nigeria was the Royal Exchange Assurance Company, which was established in 1918. This company was a branch of the Royal Exchange Assurance Company in London and it provided fire and marine insurance.

A way for people and organizations to save for potential hardships is through life insurance. Madukwe and Anyanwaokoro (2014) believe that life insurance is a social program designed to protect against the negative effects of economic hardship that could emerge from the loss or disability of a family breadwinner. As a result, life insurance products are saving tools that give consumers with savings options while also reinforcing the economy's saving culture.

Profitability is the ability of a business to continue to generate a profit after all expenses related to the creation of goods and services have been paid. A profitability measuring model is one of the most significant time-phased instruments used by organizations to evaluate their development and overall financial health over a certain period of time. This technique can also be used to contrast similar companies operating in the same sector or to contrast whole markets. A company's management must be able to identify its advantages and disadvantages, take advantage of opportunities, and neutralize threats if it is committed to producing money. One of the key factors affecting the effectiveness and health of insurers is profitability. Return on Equity (ROE), this is also called return on Investment, is a measurement of a company's profitability and the effectiveness with which those profits are produced. The better a corporation is at turning its equity financing into profits, the higher its ROE. This provide an insight to business organization profitability for both the owner and the investor.



Conceptual framework



Theoretical Review

The Statistical Cost Accounting Theory

This empirical model is founded on the connections in accounting. It features changes in a organization's profitability to variances in its balance sheet the firm's financial structure by regressing accounting earnings on the assets and liabilities. (Harvey S. Hendrickson, 2018) were the first to use it in the transportation industry. He expanded on it by testing it on samples from American and Indian commercial banks. It was used in the banking industry to compare the rates of return on various loan categories, estimate the marginal rates of return and cost on bank portfolio items, and analyse profitability disparities between different bank classes. The model's main concept is that, whereas liabilities have negative rates of return that vary across liabilities, assets have positive rates of return that vary across assets.

Empirical review

Olayingbo (2015) conducted a research on Life and Non-Life effect on the growth of Nigeria economy, using Autoregressive Distributed Lag (ARDL) and concluded that both the Life and Non-Life Insurance act as complemented to economic growth rather than substitute, using a data generated from CBN bulletin. Chideh (2019) investigate the effective factors on life assurance profitability of Iranian insurance company, ranging from 1993 to 2013, using analytical methods, he concluded that premium of life insurance business has positive effect on Iran economy. In the work of Ayienga(2016) investigate on the comparative of profitability of life assurance and general insurance companies operating in Kenya, the study compare the relationship between Life assurance and General insurance profitability, using ROA and ROE as the dependent variables, it was revealed that General insurance is more profitable than Life assurance in Kenya. Nazish & Danish(2019) investigate on the factors affecting financial performance of Life assurance in Pakistan, using data range from 2008-2017, also observed that only two(2) insurers were using Takaful life assurance while others adopted conventional style. it was also revealed that market shares, net premium, insurance leverage were not significant to Life assurance performance of Pakistan, other predictors such as underwriting risk, debt to equity capital were positively significant. Joseph.etal(2021) examined Life insurance companies determinants of cost efficiency and profitability in Ghana, using data ranging from 2013-2017 of 12 Life assurance company, using efficiency measurement software, the findings show that the significant determination of both cost and function were price of labour, commission, gross premium and net investment income, and the two predictors are positively significant to the ROA. In order to ascertain the contribution of insurance investment funds to economic growth in Nigeria, Fadun and Shoyemi (2018) examined time series data for the years 2000 to 2015 from the CBN Statistical Bulletin and Nigerian Insurers Digest. Gross domestic product, used as a proxy for economic growth, and total insurance investment were used in the study as independent and dependent variables, respectively.



Methodology

This study investigated the impact of life assurance business on the profitability of insurance companies in Nigeria, between 2011 and 2021. The study used secondary data on return on equity (ROE), Life insurance premium (LINP), Life insurance Investment (LIINV) and Total Life insurance Output (TLIO) which were gathered from Central Bank of Nigeria (CBN) Statistical Bulletin and NAICOM Bulletin. The nature of data used for this study is time series from 2011 to 2021.

Method of Data Analysis: The methodical process of defining, illuminating, compressing, examining, and assessing data using mathematical and logical methods is known as data analysis. This homework deals with how to show the evidence by manipulating the data that has been acquired. Econometric Measure (E-views) version 9.0 was used in the study to examine the data. In assessing the link and influence of the chosen variables, the researcher uses the Ordinary Least Square Estimator (OLS).

Model Specification: The model below is an adaption of a model that has been frequently utilised in previous studies such as (Olayingbo 2015; chideh 2019; Ayienga 2016; Nazish&Danish 2016; Joseph 2021; Fadun&shoyemi 2018), demonstrates the functional link between the dependent and explanatory variables. $ROE = f (LINP, LINV, LITO)$

The econometric equation for the aforementioned functional connection is as follows:

$$ROE = \beta_0 + \beta_1LINP + \beta_2LINV + \beta_3LITO + \mu$$

Where:

ROE = Return on Equity

LINP = Life insurance premium

LINV = Life insurance Investment

TLIO = Total Life insurance output

Intercept or constant = β_0

coefficients of the explanatory variables or factor sensitivities = $\beta_1, \beta_2, \& \beta_3$

$\beta_0, \beta_1, \beta_2, \& \beta_3 \neq 0$: A priori expectations

the error term = μ

Methods of Data Analysis

The study used descriptive statistics and a multiple regression technique based on E-views version 9.0 computer software to forecast the link between the adopted insurance variables (LINP, LINV, and LITO) and profitability proxy by return on equity (ROE) based on the model mentioned above. When compared to other estimating approaches, the multiple regression technique has the distinct attribute of being the best linear unbiased estimator in terms of efficiency and consistency. The coefficient of determination (R²), the likelihood of F-statistics, and the Durbin-Watson statistics were among the statistics investigated in the regression equation. The coefficient of determination (R²) quantifies the predictive factors' ability to explain the response variable. By examining the overall statistical significance of the regression model, the F-statistics test probability was utilized to generalize the assumptions. The Durbin-Watson statistic is used to evaluate the autocorrelation regression equation.

Presentation, Interpretation and Discussion of Findings

Table 1: Result of Unit Root Test

Group unit root test: Summary
Series: ROE, LINV, LIP, LITO
Date: 08/10/23 Time: 11:58
Sample: 2011 2021

Method	Statistic	Prob.**	Cross-sections	Obs
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Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-6.76772	0.0000	4	36
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-4.47889	0.0000	4	36
ADF - Fisher Chi-square	33.6740	0.0000	4	36
PP - Fisher Chi-square	34.1241	0.0000	4	36

** “Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality”.

Unit Root test ;Table 1 above show the unit root test of the variables implored for the study which show the normality test of the variables used ,it was revealed from the study based on the probability value(P-Value) which show that all the variables were stationary at first deference, only life insurance Investment was not significant at first.

Table 2: Descriptive Result

	ROE	LINV	LINP	LINTO
Mean	141.8823	56.43273	20.98000	1089.032
Median	134.1141	54.54000	16.77000	1005.780
Maximum	258.1769	101.7000	46.34000	2141.860
Minimum	83.60878	12.60000	3.010000	217.2000
Std. Dev.	50.05255	28.28007	12.08727	626.2527
Skewness	1.296190	-0.002158	0.663987	0.430599
Kurtosis	3.818255	1.857607	2.909750	2.052197
Jarque-Bera	3.387072	0.598162	0.812010	0.751663
Probability	0.183868	0.741499	0.666307	0.686718
Sum	1560.705	620.7600	230.7800	11979.35
Sum Sq. Dev.	25052.58	7997.621	1461.022	3921924.
Observations	11	11	11	11

Source E-View 2023

The above table represent the descriptive statistic in table 2 of the study, it set out the variables adopted for the study under consideration, which explain the average value of each variable used in the study, with normality test of each variable, the mean and the standard deviation of each variable implored. The descriptive statistics in table above, reveal the value of the Mean on Return on Equity (ROE) to be 141.8823, and Standard Deviation 50.05255, Life insurance Investment (LINV) with Mean value 56.43274 and Standard Deviation 28.28007, Life insurance Premium (LINP) with Mean value 20.9800 and Standard Deviation 12.08727 and Life insurance Total output (LITO) with Mean value 1089.032 and Standard Deviation 626.2527 .To sum up the descriptive statistics, the probability value of the Jacque Bera from the table also show that all the variable used are of goodness of fit, greater than the P-value 0.05, with each value close to zero and also positive .and they are normally distributed.

Table 3 Regression Analysis Result

Sample: 2011 2021
Included observations: 11



Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	149.9237	19.06855	7.862354	0.0001
LINV	0.475174	0.339745	1.398619	0.2046
LINP	2.056884	0.663093	3.101955	0.0173
LINTO	-0.071633	0.014242	-5.029559	0.0015
R-squared	0.850037	Mean dependent var		141.8823
Adjusted R-squared	0.785767	S.D. dependent var		50.05255
S.E. of regression	23.16696	Akaike info criterion		9.398619
Sum squared resid	3756.956	Schwarz criterion		9.543308
Log likelihood	-47.69240	Hannan-Quinn criter.		9.307413
F-statistic	13.22608	Durbin-Watson stat		2.117939
Prob(F-statistic)	0.002857			

Source E-view 2023

Assumption 1 Goodness of Fit: Table 3 also show R- square i.e the coefficient of determination, with 85% value, it implies that about 85% variation in Return on Equity (ROE) of insurance company is explained by the explanatory variables, with the strength of the model, the closer to one the better the result (Tabacklinck and fidell 2007).The Adjusted R- square indicated that after adjusting for the Degree of Freedom (Df) the model could explain about 75% variation in Return on Equity of insurance company .However Durbin-Watson statistic value of 2.117939 , which lies between 1.5 and 2.5 ,implies that their exist serial autocorrelation among the error terms of the variables considered for the study. The model also show a good performance with the evidence from the P-value 0.002 which is less than 0.05. Means it is statistically significant.

T-test: The T-test demonstrates the significance level of the independent variables studied; if the P-value of the t-statistic is less than (0.05), we can reject the null hypothesis and accept the alternative. Otherwise, we do the opposite. The table shows that both life insurance premium and life insurance total output have a significant relationship with insurance company return on equity, with P-values of 0.0173 and 0.0015, respectively, whereas life insurance investment has no significant relationship with insurance company return on equity, with probability value 0.2046. It means more insurance resources should be invested on viable project to yield higher proportionate return for insurance industry in Nigeria.

Co-efficient of variables. The value of the constant which was 149.923, this implies that holding all other variables constant, Return on Equity of insurance company will increase by 149.923, also the co-efficient of each variables revealed that, Life insurance investment with value 0.475174 implies that for a unit increase in Life insurance Investment, Return on Equity will increase by 0.475174, a unit increase in Life insurance Premium, Return on Equity will increase by 2.056884,and a unit increase in Life insurance total output, Return on Equity will decrease by - 0.071633.

Discussion of Result

The study found that both life insurance premium and life insurance total output have a significant relationship with insurance company return on equity, whereas life insurance investment has no significant relationship with insurance company return on equity. Additionally, the data were of good fit with respect to the P-value revealed by the study.



Conclusion

The study looked at the impact of the life insurance market on the financial performance of Nigerian insurance companies from 2011 to 2021. According to the survey, life insurance policies made a substantial contribution to the financial health of Nigerian insurance companies. The analysis relied on secondary data from the Central Bank of Nigeria's (CBN) Statistical Bulletin and NAICOM Bulletin 2021 on insurance firms' return on equity, life insurance investments, life insurance premiums, and total life insurance output. In order to forecast the association, the study used multiple regression based on the E-views version 9.0 computer software and descriptive statistics, between the adopted Life insurance variables and profitability of insurance company based on the model. The table show that both Life insurance premium and Life insurance total output has significant relationship with Return on Equity of Insurance company, while Life insurance Investment has no significant relationship with Return on Equity of insurance company. The study concluded based on the findings, that Life insurance Policy has impact on the profitability of insurance company in Nigeria. The study therefore recommended that insurance company should invest more on viable project that will yield higher proportionate in return, which will increase the profitability of insurance company in Nigeria. Insurance companies should create more awareness electronically to the grassroots consumers and general public this will facilitate smooth knowledge and better understanding of the services rendering by insurance company. Government should also assist the sector by establishing standards that insurers must adhere to in order to ensure the industry's effective and transparent management of funds and portfolio diversification.

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Group unit root test: Summary

Series: ROE, LINV, LINP, LINTO

Date: 07/31/23 Time: 13:55

Sample: 2011 2021

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on SIC: 0 to 1

Newey-West automatic bandwidth selection and Bartlett kernel

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	1.84007	0.9671	4	39
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	1.09198	0.8626	4	39
ADF - Fisher Chi-square	8.16189	0.4178	4	39
PP - Fisher Chi-square	8.05337	0.4283	4	40

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.