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Firm-Level Characteristics and Profitability of Nigeria's Insurance Sector: An Empirical Analysis.

Ipigansi, Pretoria (PhD)[1] and Norteh, Dumbor[2]
[1,2]Department of Insurance, Niger Delta University, Wilberforce Island,
P.M.B 071 Yenagoa, Bayelsa State-Nigeria.
[1]E-Mail: pretoriaipigansi@ndu.edu.ng
ORCID: 0000-0002-2798-1561
[2]E-Mail: dumbornorteh@gmail.com

ABSTRACT
This study investigates the effect of firm-level characteristics on the profitability of the insurance sector in Nigeria. The study specifically examines the extent of the effects of capital, premium size, claims expenses, reinsurance, liquidity and management efficiency, on insurance firms' profitability in Nigeria, using return on assets (ROA) and return on equity (ROE) as profitability proxies. The study relied on secondary data obtained from the annual reports of 20 listed insurance firms in Nigeria (which formed the panel for the study), from 2015 to 2021. The Generalised Method of Moments (GMM) panel regression technique was employed in analysing the data, which revealed that capital, premium size, claims payment and firm size were the main firm-level characteristics that strongly influence the profitability of the insurance sector in Nigeria. Thus, firms with greater operating efficiency are likely to enjoy more profitability in Nigeria. The study therefore advocates that the National Insurance commission (NAICOM) should review the paid-up capital of insurance firms, as the stunted profit of the sector may be attributable to capital inadequacy. More so, the management of insurance firms should take critical steps to reduce their operating costs, since the level of profitability of the industry is inconsistent with the premium earnings.

Key Words: Firm-level characteristics, profitability, return on assets, return on equity, Nigeria.

1.0 INTRODUCTION

The efficiency of the financial sector of an economy, has implications for the stability of the financial system, and overall growth of an economy, be it developed, developing or underdeveloped. As noted by Khalfaoui (2015), optimising the level of economic growth and development requires a resilient and efficient financial system, of which the insurance subsector plays a critical role. Insurance companies provide indemnity, therefore cushioning business firms from the adverse effects of varying kinds of risk. With

globalisation, and the contagion effect of financial crises, optimising the growth potential of the insurance industry is sacrosanct.

At the micro level, a profitable insurer drives its sustainability, while at the macro level, it promotes economic sustainability by managing the risk components of business firms (Osuagwu, 2014); thereby enhancing the resilience of the financial system. However, the efficient operation of insurance firms, the world over, is determined by a lot of factors, whether endogenous, or exogenous. While the former are controllable to a large extent, such as capital, operating efficiency, liquidity, risk management, and operating scale, among others, the latter is largely uncontrollable – a constellation of institutional and macroeconomic factors, such as competition and market concentration, regulation, inflation, interest and exchange rates and demographics, etc.

In Nigeria, the National Insurance Commission (NAICOM) was established in 2007, with a mission to enhance the potential of the domestic insurance market, by enhancing the underwriting capacity of insurance firms and promoting greater product and market competition (Olarewaju, Oladejo, Olaoye, Olarewaju, & Ogunmakin, 2018). Since then, several reforms geared towards evolving a more efficient and resilient insurance industry, have been initiated, at one time or another. Particularly, the Prudential Guideline for Insurers and Reinsurers in Nigeria (2015) and the Prudential Guidelines for Insurance Institutions in Nigeria (2022) were aimed at providing minimum prudential standards for insurance firms operating in Nigeria (NAICOM, 2015, 2022). These guidelines sought to protect policy holders and to set other regulatory standards that will ensure the efficient operation of insurance institutions in Nigeria.

But, in spite of the prudential standards set by NAICOM and the robust regulatory environment of insurance institutions, with strong emphasis on good corporate governance and underwriting risk management, the growth of the sector in Nigeria seems quite sluggish. Quite a number of insurance firms in Nigeria have continued to post negative profitability over the past few years. Some of the reasons advanced for these developments include poor corporate governance, poor poor risk management culture and operational inefficiency. It is therefore necessary to clearly identify those firm-level characteristics that can enhance and sustain the profitability of the insurance sector in Nigeria.

Although there has been increasing scholarly debates on the determinants of insurance firms' profitability in Nigeria (Olarewaju, *et al*., 2018; Odusanyaa, Yinusa, & Ilo, 2018; Ajao, & Ogieriakhi, 2018), the inconsistency in research models have made a consensus on the subject far-reaching. Since firm-level characteristics are crucial in determining firm profitability, it is equivocal that major endogenous factors must be examined in a bid to discern a profitability model for insurers. Apart from this, empirical literature is quite scanty, and is belated by about five years; considering recent developments in the industry and the current economic recession being experienced in the country.

Thus, this paper is intended to fill the identified gaps in the Nigerian insurance profitability literature, by adopting a more holistic profitability model, in lieu of the current

realities of the Nigeria insurance sector and the economy as a whole. It is intended to explore the extent of the effect of such factors as: capital, premium size, claims, reinsurance, liquidity and management efficiency, on the profitability of listed insurance firms in Nigeria.

2.0 LITERATURE REVIEW

2.1 Conceptual Clarifications

Firm-Level Characteristics

These are factors that are endogenous to a firm but are critical to the firm's operations. They are mostly controllable factors, such as:

i. Capital: Capital is the owners' resources that provide the fulcrum of a firm's operations. Capital is used in purchasing both fixed and variable assets that are utilized in the business operations. Theoretically, it is assumed that higher returns can be achieved with a higher capital base. This is because, with a large capital base, a firm can be able to expand its operations as well as invest in financial assets that can guarantee equitable returns.
ii. Claims Payout: Claims are the obligations due to policyholders, given the occurrence of the event to which they were insured. Claims are paid out of dividend, and the more claims an insurer pays, the less profitable he is, as claims are paid out of the premium earnings of the firm.
iii. Liquidity: This underscores a firm's ability to have a reasonable amount of cash or near-cash in order to be able to meet its financial commitments. While liquidity can enhance a firm's ability to cash in on speculative investments, excessive liquidity may also have some cost implications on the firm (Calomiris *et al*., 2015).
iv. Risk management: Insurance companies bear the risk of individual and corporate clients, and they too must have the capacity to manage the risk they bear. One way they can manage their underwriting risk is through reinsurance. Underwriting risk arises from the possibility of paying a policy holder more than the premium that accrues from such contract. Reinsurance therefore provides a good means of managing such risk by insuring themselves against the underwriting risk they bear.
v. Management Efficiency: This is seen in the ability to effectively and efficiently utilise resources in generating income for the firm. Efficiency can either be achieved by using less resource to provide a given output or using a given resource to produce more output.
vi. Size: Size defines the capability of a firm to harness economies of scale in its operations. It is often represented by the size of a firm's total assets. More so, it is generally advocated that economies of scale increases with the size of a firm. Thus, the larger the size of the insurance firm, the more profitable it can be. Several

researches have empirically ascertained the effect of size on firm profitability, most of which conclude that size has direct positive effect on profitability.

Profitability

Maximizing profitability is the most outstanding objective of business firms (Jhingan, 2006), as it provides the leverage for settling financial and operating obligations, and providing equitable returns to firm owners, among others. It is therefore the ability to generate adequate returns on investment (Tulsian, 2014; Pandey, 1980). The sustainability of a corporate enterprise is hinged on its ability to make profits, since this defines its existence. Although profitability does not necessarily imply efficiency, it is however, one of the major outcomes of efficiency. In pursuing profitability, insurers must also contend with risk management and operating efficiency issues.

In the profitability literature, there are several measures of profitability, but the return on assets (ROA) and return on equity (ROE), are most often used.

i. Return on Asset (ROA): The ROA is the most popular measure of profitability, and it indicates the profit that accrue on unit of money invested in a firm's assets. It also allows for a more comparative assessment of profitability, especially within an industry. It is calculated by dividing the profit after tax of a firm by its total assets. It reflects the capability of a firm's management to make returns from the employment of its financial and real investments (Naceur, 2003).
ii. Return on equity: This reveals the proportion of profit earned by the core capital invested in the bank; and reflects the returns that are accruable to the owners of the firm. It is calculated by dividing the profit after tax by total equity. It reflects management's ability to utilize shareholders' funds in generating profits.

2.2 Theoretical Review

The underlying theory of this paper is the X-efficiency hypothesis, a variant of the Efficient-Structure Hypothesis (Joen, & Miller, 2005),). The X-efficiency hypothesis posits that firms with better management and operational practices are able to control costs, thereby increasing their profit potential (Berger, 1995). They achieve more cost effectiveness due to the adoption of best practices. The X-efficiency, also referred to as managerial efficiency (Bikker and Bos, 2008), assumes that profitability is determined by the efficiency of management. In this regard, an insurance firm that adopts best management practices, no matter the size, can perform better in terms of profitability; and such firms have better chances of survival, even in a more concentrated business environment. In the Nigerian scenario, some of the firms making consistent huge losses are very large and old insurance firms.

The innovation theory, propounded by Joseph Schumpeter, a German economist, in 1934, also emphasises that profit is an outcome of entrepreneurial ability. In his book, *Business Cycles*, he proposed that profits are a residue, which represent the cost of entrepreneurial ability, used up in operations of a business entity. He stressed that profit

(residue) is the difference between price and cost; and it is increased as a result of innovations, such as: new products introduction, differentiation in goods and services, development of new markets as well as the introduction and use of new organisational forms, amongst others.

Although, the theory of innovation was targeted at explaining the dynamics of the private sector, it has been adopted to explain the context of profit and non-profit organisations (Bailey, Kleinhans and Lindbergh, 2018). Innovation includes significant changes in techniques, equipment, and software and is made to reduce the production and delivery costs per unit, improve quality, and produce new products (OECD, 2005).

3.0 EMPIRICAL REVIEW

Olarewaju, *et al*. (2018) investigated the effect of firm-specific factors on composite insurance firms' profitability in Nigeria. The study specifically assessed the extent to which leverage, risk, and size, among other factors, influence the ROA of the firms. They employed a sample of 8 composite insurance firms, over a 6-year period from 2009 to 2015, which were analysed using the pooled, fixed and random effects panel regression techniques. The results revealed a significant and insignificant negative effects of leverage and size on ROA, respectively, while risk had a positive but weakly significant effect on ROA.

Odusanyaa, Yinusa, and Ilo (2018) assessed the factors critical to firm profitability in Nigeria, using a sample of 114 listed firms on the Nigerian Stock Exchange (NSE) from 1998 to 2012. The result of the analysis, using the system Generalised Method of Moments (GMM) estimation technique, indicated that short term leverage, inflation rate, interest rate and financial risk have significant negative effects on firm profitability, while age and size had insignificant positive effects on profitability in Nigeria.

Ajao, and Ogieriakhi (2018) examined the nexus between firm specific factors and firm performance of the insurance industry in Nigeria. They employed panel data from a sample of 12 insurance firms from 2009 to 2017. Applying the least square panel regression technique, they found a significant negative effect of size as well as age on ROA while leverage and age had positive but statistically insignificant effects on ROA.

Ahmed (2015) investigated the effect of capital size on the profitability performance of insurance firms in Nigeria, from 2006 to 2012. The study specifically estimated the effects of capital size and gross premium income on the profit after tax (PAT), using a sample of 7 firms. The data for the study was generated from the annual report of the selected, which were analysed using the random effect panel regression model. The results revealed a positive but insignificant effect of capital size on the profitability of insurance firms in Nigeria.

Lalon, and Das (2022) examined the influence of industry-specific-factors on the profitability of general insurance firms in Bangladesh from 2010 to 2019. Applying the pooled, fixed and random effect panel regression techniques, amidst others, the study found a significant negative effect of underwriting risk, premium growth and size on ROE, whereas reinsurance risk, liquidity and leverage ratio had significant positive effects.

Shawar (2019) examined the determinants of insurance firms' financial performance in Pakistan. Data were generated from a sample of 5 insurance companies between 2013 and 2017, which were analysed using the fixed effect panel regression estimation technique. It was revealed that premium had significant positive effect on financial performance, while claims and reinsurance had insignificant positive and negative effects on financial performance, respectively, whereas size had a significant negative effect on performance. On the other hand, management efficiency had significant negative and positive effects on investment income and underwriting profit, respectively.

Ortyński (2016) also investigated the determinants of insurance firms 'performance in Poland from 2006 to 2013. The result, using the weighted least square (WLS) technique, showed that underwriting activity had negative influence on profitability while size and gross written down premium had positive effects on profitability. Dhiab (2021) also explored the factors determining profitability in the insurance industry in Saudi Arabia, using a sample of 20 firms from 2009 to 2017. The result, using a variety of panel regression models, indicated that written premium growth had significant effect on profitability while size and liquidity also positively affected profitability, but not significantly. In contrast, leverage ratio and age negatively influenced profitability.

3.1 Conceptual Model

The conceptual framework developed for this study is given in the diagram below:

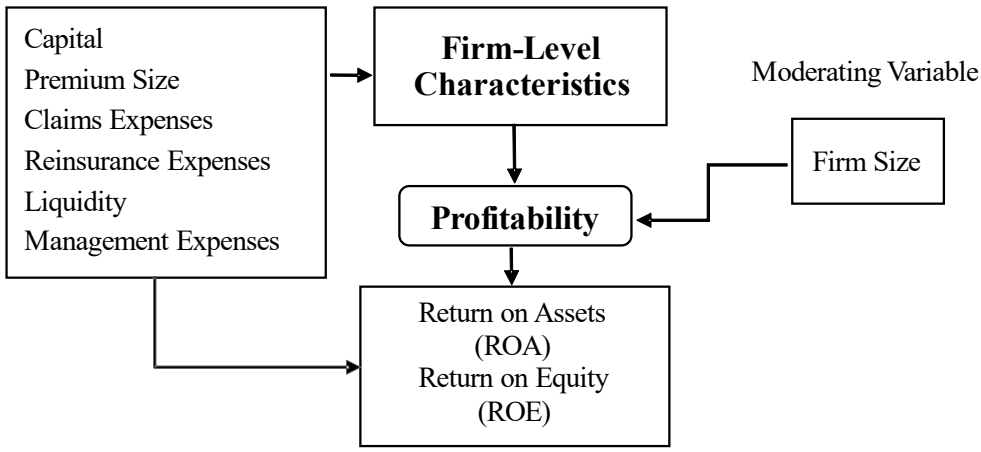

Figure 1: Conceptual Framework
Source: Researcher's Conception (2023)

4.0 METHODOLOGY

This study employs exploratory and descriptive research designs in a bid to ascertain the link between firm-level characteristics and profitability of the insurance sector in Nigeria. It employed a sample of 20 insurance companies, purposively drawn from the 23 insurance firms listed on the Nigerian stock exchange. The data was generated from the

annual reports of the selected firms, with a 7-year coverage from 2015 to 2021. The Generalised Method of Moments (GMM) panel regression technique was utilised in analysing the research models. The model, which follows those of Olarewaju, *et al*. (2018) and Shawar (2019), expresses profitability, using ROA and ROE as proxies, as a function of firm-level characteristics, as shown in the mathematical models in Equations 1 & 2.

$$ROA = f(CAP, PREM, CLEX, REINS, LQTY, MGTEF, FSIZE) \quad \ldots\ldots(1)$$

$$ROE = f(CAP, PREM, CLEX, REINS, LQTY, MGTEF, FSIZE) \quad \ldots\ldots(2)$$

These are further expressed econometrically, as in Equations 3 & 4.

$$ROA = \alpha_0 + \alpha_1 CAP_{it} + \alpha_2 PREM_{it} + \alpha_3 CLEX_{it} + \alpha_4 REINS_{it} + \alpha_5 LQTY_{it} + \alpha_6 MGTEF_{it} + \alpha_7 FSIZE_{it} + e_{it} \quad \ldots\ldots(3)$$

$$ROE = \alpha_0 + \beta_1 CAP_{it} + \beta_2 PREM_{it} + \beta_3 CLEX_{it} + \beta_4 REINS_{it} + \beta_5 LQTY_{it} + \beta_6 MGTEF_{it} + \beta_7 FSIZE_{it} + e_{it} \quad \ldots\ldots(4)$$

Where: ROA = Return on assets, ROE = Return on equity, CAP = Capital, PREM = Premium size, CLEX = Claims expenses, REINS = Reinsurance expenses, LQTY = Liquidity, MGTEF = Management efficiency, FSIZE = Firm size, α_0, β_0 = constants, α_0-α_0, β_1-β_4 = Coefficient of the independent variables, e = error term. The variables are also measured, with their a priori expectations, as shown in Table 1.

Table 1: Measurement of Research Variables and a priori Expectation

S/N	Variable	Description	Type	Measurement	*A priori* Expectation
1	ROA	Return on Asset	Dependent	Profit after Tax/Total Assets *100	
2	ROE	Return on Equity	Dependent	Total Equity/Total Assets *100	
3	CAP	Capital	Independent	Paid-up Capital/Total Assets *100	Positive
4	PREM	Premium size	Independent	Net premium income/Total Assets *100	Positive
5	CLEX	Claims expenses	Independent	Claims expenses[#]/Net premium income	Negative
6	REINS	Reinsurance expenses	Independent	Reinsurance Expenses/Net premium income *100	Negative
7	LIQ	Liquidity	Independent	Liquid Assets/Total Assets *100	Positive

S/N	Variable	Description	Type	Measurement	*A priori* Expectation
8	MGTEF	Management efficiency	Independent	Operating expenses/Net underwriting income *100	Negative
9	FSIZE	Firm size	Control	Natural logarithm of total assets	Positive

Source: Researcher's Compilation (2023).

[#]Claims expenses is applied as the net value, after deducting reinsurance claims paid.

4.1 Results Presentation and Discussion

Table 2: Descriptive Statistics

	CAP	PREM	CLEX	REINS	LQTY	MGTEF	FSIZE	ROA	ROE
Mean	31.10808	31.44011	47.03090	47.31660	51.97732	58.54721	23.54275	-0.464201	7.553866
Median	23.89497	30.75696	36.52100	41.92732	52.49529	45.93144	23.63759	2.547312	5.398843
Maximum	89.64166	111.7361	299.5643	304.1429	93.29889	461.9165	26.00309	16.28116	1316.667
Minimum	2.561676	2.118820	4.319004	0.082047	8.751334	11.16906	21.29650	-72.20056	-1213.520
Std. Dev.	23.02525	16.83153	38.72020	38.22071	21.38555	50.99875	0.908959	11.31103	155.7209
Skewness	1.046058	1.007285	3.236671	3.112658	-0.094070	4.713465	-0.219757	-3.334837	0.831777
Kurtosis	3.100111	5.709955	17.66110	18.86465	2.364782	33.40702	3.785836	18.28672	63.64618
Jarque-Bera	25.59064	66.51370	1498.303	1694.243	2.560245	5911.815	4.729145	1622.649	21470.91
Probability	0.000003	0.000000	0.000000	0.000000	0.278003	0.000000	0.093989	0.000000	0.000000
Sum	4355.132	4401.616	6584.325	6624.324	7276.825	8196.609	3295.986	-64.98819	1057.541
Sum Sq. Dev.	73692.55	39378.75	208396.3	203054.4	63570.48	361521.2	114.8427	17783.58	3370613.
Observations	140	140	140	140	140	140	140	140	140

Source: Researcher's Computation with Eviews

The result in Table 2 indicates the mean values for CAP, PREM, CLPD, REINS, LQTY, MGTEF and FSIZE, as: 31.1%, 31.4%, 47%, 47.3%, 52%, 58.5% and 23.5, respectively. ROA and ROE have mean values of -0.46 and 7.6%. Apart from PREM, LQTY and FSIZE, which are symmetrical (having similar means and medians), all other variables are asymmetrical. Furthermore, the standard deviations of CAP, PREM, CLPD, REINS, LQTY, MGTEF and FSIZE, are given as: 23%, 16.8%, 38.7%, 38.2%, 21.4%, 51%, and 0.9, respectively, while those of ROA and ROE are 11.3% and 155.7%. Both ROA and ROE show greater spread –their standard deviations are several times greater than their means. In addition, all the variables are skewed to the right except for ROE, RGDP and RINTR. The Kurtosis also shows that the dependent and bank-specific variables are highly peaked while those of INFLR, RGDP and RINTR are moderate. Finally, the Jarque-Bera statistics and p-values, however indicate that none of the variables is normally distributed.

 Table 3: Correlation Matrix

	CAP	PREM	CLEX	REINS	LQTY	MGTEF	FSIZE	ROA	ROE
CAP	1.000000								
PREM	0.146070	1.000000							
CLEX	-0.033755	-0.210124	1.000000						
REINS	-0.216211	-0.134239	-0.251757	1.000000					
LQTY	-0.417316	-0.009071	-0.048165	0.019007	1.000000				
MGTEF	0.084138	-0.379885	0.486926	-0.039110	-0.362192	1.000000			
FSIZE	-0.644329	-0.190616	0.149261	0.020584	0.589509	-0.180332	1.000000		
ROA	-0.452811	-0.087474	-0.349735	0.234639	0.385698	-0.267700	0.454955	1.000000	
ROE	-0.037943	-0.083357	0.213449	-0.022015	0.001055	0.092206	0.039278	0.033007	1.000000

Source: Researcher's Computation with Eviews

In Table 3, it is revealed that all the variables are negatively correlated with ROA, except REINS, LQTY and FSIZE, while they are positively correlated with ROE, except CAP, PREM and REINS. More so, the correlation coefficients between the independent variables do not exceed 60%, except in the case of CAP and FSIZE, which is -0.64. Thus, there is absence of multi co-linearty among the variables in the model.

Table 4: GMM Regression Output (Model 1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CAP	-0.095371	0.044019	-2.166611	0.0321
PREM	-0.043983	0.050445	-0.871905	0.3848
CLEX	-0.117470	0.023828	-4.929872	0.0000
REINS	0.022136	0.021164	1.045954	0.2975
LQTY	0.053494	0.045545	1.174545	0.2423
MGTEF	0.003706	0.019771	0.187419	0.8516
FSIZE	3.972846	1.276966	3.111162	0.0023
C	-88.16641	30.55114	-2.885863	0.0046
R-squared	0.431609	Mean dependent var		-0.464201
Adjusted R-squared	0.401467	S.D. dependent var		11.31103
S.E. of regression	8.750768	Sum squared resid		10108.03
Durbin-Watson stat	1.624561	J-statistic		132.0000
Instrument rank	9	Prob(J-statistic)		0.000000

Source: Researcher's Computation with Eviews

The result in Table 4 reveals that the independent variables determine 40.1% of the variations in ROA. The J-statistic and probability (p-value) of 8.75 and 0.000 also confirm that the model has a very high goodness of fit. The t-statistics, on the other hand, reveal that only CAP, CLEX and FSIZE, have significant effects on ROA.

Table 5: GMM Regression Output (Model 2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CAP	-0.266878	0.123641	-2.158491	0.0340
PREM	-0.457701	0.228049	-2.007029	0.0451
CLEX	-0.940315	0.424201	-2.216674	0.0284
REINS	0.084698	0.376763	0.224804	0.8225
LQTY	0.026749	0.810807	0.032990	0.9737
MGTEF	-0.129198	0.351981	-0.367060	0.7142
FSIZE	6.972743	2.733152	2.551173	0.0195
C	152.3460	43.78860	3.479125	0.0008
R-squared	0.389574	Mean dependent var		-0.553866
Adjusted R-squared	0.360828	S.D. dependent var		15.87209
S.E. of regression	9.557854	Sum squared resid		1203519.
Durbin-Watson stat	1.784029	J-statistic		122.1000
Instrument rank	9	Prob(J-statistic)		0.000000

Source: Researcher's Computation with Eviews

The result in Table 5 reveals that the independent variables determine 36% of the variations in ROE. The J-statistic and probability (p-value) of 122 and 0.000 further confirm that the model has a very high goodness of fit. More so, the t-statistics reveal that only CAP, PREM, CLEX and FSIZE, have significant effects on ROE.

5.0 DISCUSSION OF FINDINGS

From the results of the GMM panel regression, capital is found to have a significant positive effect on both ROA and ROE, which is at variance with the expected a priori. This implies that profitability reduces with increases with increase in capital. This result contrasts that of Ahmed (2015), who found a positive, howbeit, insignificant effect of capital size on insurance firms' profitability in Nigeria. This is probably because the level of capitalisation of the industry remains quite low or insurance firms in Nigeria have not leveraged on the consolidation reform.

Similarly, premium size was seen to exert insignificant and significant negative effect on ROA and ROE, respectively, which do not conform to the a priori expectation. This also implies that the profitability of the insurance industry in Nigeria does not appreciate with increased premium. This result agrees with that of Lalon, and Das (2022), who found a significant negative effect of premium growth on ROE. It, however, contrasts Shawar (2019) and Ortyński (2016), who found positive effect of premium on profitability in Pakistan and Poland. This could be hinged on the high cost of operations of most of the insurance firms in Nigeria. As shown in Table 2, almost 60% of underwriting income is expended on their operations, which reduces the profit potential of the industry.

In the same vein, claims expenses had significant negative effect on both ROA and ROE, in line with the a priori expectation; implying that claims contribute negatively to profitability. Lalon, and Das (2022) as well as Ortyński (2016), also found a significant negative effect of underwriting risk on profitability. This stems from the fact that premium earnings is the main source of profitability for insurance firms, and as such, increase in claims payment, reduces the profit potential of the industry. On the contrary, both reinsurance expenses and liquidity were fund to have insignificant positive influences on profitability. The positive effect of reinsurance is inconsistent with the a priori expectation, and its insignificance may be due to the high amount of premium earnings ceded out to reinsurers (almost 50%) by Nigerian firms. On the other hand, the positively signed liquidity coefficient is consistent with theoretical expectation and implies that financial performance can be enhanced with increased liquidity.

More so, management efficiency was found to have insignificant positive and negative influences on profitability in Nigeria. The insignificance of management efficiency buttresses the fact that the insurance industry in Nigeria operates at a very high cost, which also negatively affects profitability. Lastly, firm size has a significant effect on both ROA and ROE, as theoretically expected. This implies that profitability increases with size. This result is similar to those of Olarewaju, *et al*. (2018), Odusanyaa, *et al*. (2018) a positive, though insignificant, effect of size on firm profitability in Nigeria. This is because at increasing size, scale economies set in, resulting in reduced operating cost and higher profitability.

6.0 CONCLUSION

This study was carried out to ascertain the extent to which firm-level characteristics influence profitability in the insurance industry in Nigeria. It examined the extent of the effects of capital, premium size, claims expenses, reinsurance, liquidity and management efficiency on profitability – using ROA and ROE as proxies of profitability. The result of the data analysis, which was based on a panel of 20 listed insurance firms – with a 7-year periodic coverage, revealed that capital, premium size, claims payment and firm size were the main determinants of profitability in Nigeria. The study contributes to literature by garnering support for the X-efficiency hypothesis, concluding that profitability can be enhanced with greater operating efficiency.

7.0 RECOMMENDATIONS

Consequent upon the findings made, the following policy recommendations are advocated in a bid to enhance the profitability performance of the insurance industry in Nigeria.

i. The paid-up capital of insurance firms should be reviewed, since the significant negative effect of capital may be due to capital inadequacy.
ii. The management of insurance firms should take critical steps to reduce their operating costs, since the level of profitability of the industry is inconsistent with

the premium earnings. This could be achieved by carrying out a review of management expenses and also by enhancing efficiency.

iii. There is also need to examine the reinsurance expenditure of the industry, which averages almost 50%, as a huge chunk of their premium earnings are ceded out to reinsurers. Part of this could be invested in some hybrid financial assets that can increase the overall returns of the firms.

iv. Insurance firms in Nigeria are also encouraged to engage in strategies that can increase their size, as it is found that size has strong positive influence on the profitability of the insurance industry in Nigeria.

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