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Impact of Board Characteristics and Risk Management on Financial Performance of Listed Insurance Firms in Nigeria

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ABSTRACT

The study examined the impact of board characteristics and risk management on financial performance of listed insurance firms in Nigeria for the period of 2012-2017. The study adopted correlational research design. The study used data extracted from annual reports of listed insurance firms in Nigeria. The study was anchored on the risk management theory and resources dependence theory to establish conceptual relationship between the variable .The population of the study comprised of the 30 listed insurance firms in Nigeria and 26 adjusted population was arrive based on availability of data. The data collected were analyzed with the aid of paneled regression. The findings revealed that solvency risk and underwriting risk have negative and significant relationship with financial performance of listed insurance firms. Based on the findings, the study recommends that Insurance firms should offer adequate diversification of insurance policy portfolio to have better premium earning that can compensate other loss when it's occurred. Hence, insurance companies should give due attention on these areas to reduce the effect of underwriting risk for their performance and should also strive to attract more customers and boost their income through provision of enhanced estimation technique on insurance policy premium price to maximize their net premium earning and net asset. Since the country is growing and transforming into the age of industry with the existing paid up capital, it will be likely for insurance companies to face solvency risk.

1. Introduction

The financial performance of the insurance firms plays a pivotal role in the growth of the industry as a whole, which ultimately contributes to the success of an economy (Iswatia, & Anshoria, 2015). Performance measures the financial health of the organizations and shows the effectiveness of executive leaders of the firm. Higher the financial performance of the firm more effective and efficient the firm in using the resources and later contributes at the macro level in countries economy (Gonga *et al,* 2017). Good examples of financial performance measurement may include operating income, return on asset, earnings before interest and taxes, and net asset value (Ngui, 2010). The financial performance of a general insurance solvency and underwriter would be affected by how much of the available funds are deployed in assets that earn a return and also how big that rate of return is (Chen & Wong, 2014).

Underwriting involves risk measurement and evaluation leading to determination of the commensurate cost to cover that risk (Dowd, 2017). Underwriting risks arising from insurance policies that are taken under coverage and which guarantee payment of claims. This is then adjusted to cater for inflation, uncertainty and expenses. Ineffective management of underwriting risk will affects financial performance (Angima, Mwangi, Kaijage, & Ogutu, 2017). Solvency on the other hand indicates the ability to meet long-term financial obligation (Dahiyat, 2016). Solvency ratios used in solvency management by each organization in the form of a debt ratio and debt to equity ratio (Gao & Zare, 2017). Debt ratio will be calculated as a measure of solvency through measuring debt level of a business as a percentage of its total assets. If the percentage is too high, it might indicate that its difficult for the business to pay off its debts and continue operation which may affect their financial performance (Khidmat & Rehman, 2014). Policyholders who bear the consequences of insolvency, and thus maintain a low level of risk taking (Bansal & Bansal, 2014). Meanwhile, there are other factors that could affect the financial performance of a firm. Among them are board characteristics play a major role in insurance firms.(Dhanujanirmani, 2018).

According to Dhanujanirmani *et al,* (2018), boards are the main element of corporate governance. The size of a board is seen as important factor in influencing the monitoring and decision-making process thereby enhancing financial performance (Fauzi & Locke, 2012). Board size refers to the total number of directors on the board of directors of a firm. It is also viewed as a proxy to measure the diversity of the knowledge pool and the availability of resources provided by the board from the perspective of resource dependence theory (Uwuigbe & Fakile, 2012). The ability of the board to effectively monitor the top management and to mitigate the agency problems is greatly dependent on the board independence as the outside directors have absolutely no stake in the firm (Altuwaijri & Kalyanaraman, 2016). Independent directors are viewed as people who can provide a better quality and assurance of reasoned corporate judgment that will boosts their performance(Nur, Karbhari & Nasir, 2011). Ineffective corporate boards pose challenges to the performance of insurance firms.

According to Gam (2019), weak corporate governance, weak financially and economically underperforming were significantly evident in 2018. In the same vein, Lenee, Torbira and Ngerebo (2019), says that any insurance firm whose insolvency ratio is below the minimum level automatically lose the ability to settle all claims from its clients in an extreme situation that worsen their financial performance. The solvency ratio of five Nigerian insurers firms have fallen below regulatory threshold, these firms are; Aiico Insurance Nigeria Plc with solvency ratio of 55 per cent, First Bank Insurance Plc who ratio is said to be at 59.10, per cent, Lead way Assurance Limited: 76 per cent, NEM Insurance Plc, 93 per cent and Continental Nigeria Plc which the report also said currently stands 90 per cent (Vangaurd, 2019).Despite efforts by the firms themselves and the regulatory authorities, the revelation was that the performance of the Nigerian insurance firms can be described as suboptimal as Statistics showed that Return on Assets (ROA) of the industry declined from an average of 8.5% in 2016 to 7.0% in 2017. Managers must ensure that insurance firms do not suffer a shortage or surplus of payment means and they must be ready to cover current and long term liabilities when necessary as it will increase solvency and underwriting risk invariably worsen their performance(Kyule, 2015).

Several studies have been conducted on risk management and financial performance both in developed and developing countries using risk management as the independent variable. For instance,(Angima et al., 2017; Asemeit, 2014; Venuti & Alfiero, 2016; Wani & Dar, 2013; Eikenhout, 2015)conducted studies on risk management and financial performance, while (Zattoni et al., 2017; Badu & Appiah, 2017; Ifeanyi & Chukwuma, 2016; Al-Matari, Al-Swidi, Fadzil, & Al-Matari, 2012)examined the impact of board characteristics on financial performance. However, these studies either have investigated board characteristics or risk management standalone variables, there is no study that have combined the two studies in a single research which may produce different result. Thus, this study fills the gap in literature to investigate the existence if any relationship between board characteristics, risk management and financial performance of listed insurance companies in Nigeria from 2012-2017. The researcher therefore hypothesized that board characteristics, risk management have no significant effect on the financial performance of listed insurance firms in Nigeria.

The practical outcome of the study will contributes to current knowledge on the performance of the firms. Efficient financial management requires the existence of some objectives or goals. This is because judgment as to whether or not a financial decision is efficient must be made in light of an appropriate management of underwriting and solvency while at the same time sustaining good returns to the shareholders. The study would be informative to stakeholders and prospective investors by clearly revealing the current position of the performance of insurance firms in Nigeria. In addition, stakeholders of the insurance firms in Nigeria would be guided by this information to design a plan that would be used to improve upon the short-comings from reforms and other regulations in insurance business in Nigeria.

The remainder of the paper is organized as follows: section 2 presents relevant extant studies. Section 3 discusses the methodology employed for the study. In section 4, the results of data analysis are presented and discussed. Section 5 concludes the study by highlighting the finding and its policy implications.

2. Literature Review

The debate on the relationship between risk management, board characteristics and financial performance has attracted great attention from accounting researchers in both developed and developing economies. This is evident in the number of empirical studies conducted from both economies over the years.

Solvency and financial performance

Dabo,Afang and James(2018), explored the impact of solvency risk on performance of listed Insurance firms in Nigeria. The study covered a period of seven years from 2010-2016, the population covered 25 listed insurance firms in Nigeria and a census was used to determine the sample size of the study. Secondary data was employed for the study and data were extracted from the annual report of listed insurance firms in Nigeria. Simple Regression Analysis was employed to determine the impact of solvency risk on performance. The results revealed that solvency risk has a positive and significant influence on the performance of listed insurance firms in Nigeria.

Similarly,Kyule(2015), investigated the impact of liquidity and solvency on financial performance of firms listed at the Nairobi Securities Exchange. The study adopted risk management theory to further establish the literature Descriptive research design was used. The study covered a five year period from 2009 to 2013, where 67 firms were used for the study. Secondary data was collected from the annual reports of firms listed at the NSE. Data was then analyzed using a regression analysis model. The findings revealed that Solvency negatively affects financial performance. Findings from the study may likely not be applicable to insurance firms in Nigeria due to sectoral and economic differences.

Furthermore, Mustapha, Salam and Mohammed (2017), assessed the effect of corporate risk on financial performance of listed Deposit Money Banks in Nigeria for the period of 2011-2016. The population of the study based on the availability of data in the Nigerian Stock Exchange is fourteen (14) listed Deposit Money banks. Extreme value theory and shiftability theory were used to establish the theory. The study adopted Census sampling technique of which all the fourteen (14) Banks were studied. Corporate risk on financial performance. Data were collected from secondary source through the annual reports of the banks for the period under study and the data was analyzed using panel regression techniques. Findings from the study may likely not be applicable to insurance firms in Nigeria due to sectoral differences.

Underwriting and financial performance

Angima(2017), investigated the effect of underwriting and claims management practices on the performance of general insurance firms in East Africa. The study covered the period

from 2010-2014. The study employed multiple linear regression analysis using primary and secondary data collected from 82 general insurers in Kenya, Uganda and Tanzania. The findings show that there is a significant positive relationship between underwriting and claims management practices employed by the firms and non-financial performance. Findings from the study may likely not be applicable to insurance firms in Nigeria due to sectoral and economic differences

Also, Asemeit (2014), established the effect of risk management practices adopted by Kenyan insurance companies on the financial performance of these companies. An exploratory research design was used for the study, with the target population being the 49 registered insurance companies in Kenya. The study used both primary and secondary data. Primary data was collected through questionnaires with 44 insurance companies giving a response. Secondary data was collected from published annual reports for a period of five years from 2008 to 2012. Regression analysis was also used in the study. The study established that a majority of insurance companies in Kenya had adopted risk management practices in their operations and that this had a strong effect on their financial performance. Findings from the study may likely not be applicable to insurance firms in Nigeria due to sectoral and economic differences.

Board size and financial performance

Topal and Kocatepe(2014) studied the impact of the board size on the financial performance of the firms. The study's sample utilizes data from 2002-2012 belonging to 136 firms operating in manufacturing industry section of Borsa Istanbul (BIST) Turkey. In empirical analyses, Robust estimator developed by Beck-Katz (1995) was used. The results of the conducted analyses suggest a positive relation between the board size and firm performance. Findings from the study may likely not be applicable to insurance firms in Nigeria due to sectoral and economic differences.

Also, Oludele and Tobiah(2016), explored the impact of board size on the financial performance of listed manufacturing companies in Nigeria. The study captured the period from 2005-2014.The study used resource dependency theory to establish it's literature. The manufacturing sector in Nigeria consists of 74 companies from where 34 companies were purposively selected. The study used both primary and secondary data. Secondary data was extracted from the published financial statement of the selected companies while primary data was collected with the use of questionnaire from the 170 respondents drawn from the selected 34 companies. The result indicates that there is a significant positive linear relationship between board size and financial performance of listed manufacturing companies in Nigeria. Findings from the study may likely not be applicable to insurance firms in Nigeria due to sectoral differences.

Likewise, Agyemang and Badu (2017), examined the impact of corporate board size on firm performance . The study covered the period from 2008-2014 with a sample of 137 listed firms in Ghana and Nigeria. Our findings suggest a statistically significant and positive relationship between board size and firm performance. The results provide empirical support for agency theory, which suggests that optimal corporate board size effectively advise, monitor and discipline management thereby improving firm performance.

In addition, Shunu(2017) established the effect of board size on the performance of listed firms in Nairobi security exchange. It was guided by agency theory, upper echelon theory which captured the board's monitoring role. The study used exploratory research design and also employed panel approach for a period covering ten years from 2006-2015. The target population comprised of all 68 listed firms in Nairobi Securities Exchange. The study used secondary data which was obtained from annual reports and NSE bulletins. Data was analysed using both descriptive and inferential statistics. Specifically, multiple regression was used to test the hypothesis. The study found a significant positive effect of board size and firm financial performance.

Board independence and financial performance

Altuwaijri and Kalyanaraman (2016), investigated the relationship between board independence and firm performance from the period of 2010-2014. Hypotheses were tested on data drawn from non-financial firms listed on Saudi Arabian stock exchange. The sample comprises of 365 firm-year observations drawn from 11 sectors namely, agriculture, cement, communication, construction, energy, hotel & tourism, media, petrochemicals, real estate, retail and transportation. The study adopted agency theory to establish conceptual relationship between explanatory and explained variables. While panel data regression with fixed effects model was used to analyze data collected. The findings revealed that board independence has a positive link with firm performance. Findings from the study may likely not be applicable to insurance firms in Nigeria due to sectoral and economic differences.

Similarly, Fekadu (2015), examined the impact of corporate governance on the performance of closely regulated Ethiopian insurance Industry. Agency theory, stewardship theory, stakeholders theory and resource dependency theory was adopted to underpin the study. The study also employed explanatory research design with an econometric panel data of 10 Insurance companies that covers the period 2007 to 2014. The results revealed that Board size and board independence have negative and insignificant effect on the performance of insurance companies in Ethiopia.

Furthermore, Garba and Mikailu(2011), observed the relationship between board independence and firm financial performance, using data of varying sample size (ranging from 89 firms for regression to 205 firms for descriptive analysis) obtained from the Nigerian Stock Exchange for the period 1996 through 2004.the study used agency theory and stakeholders theory to underpin the literature. These results suggested the need for Nigerian firms to adopt better corporate governance mechanisms in order to make the boards of directors more independent.

The Resources Dependence Theory

Resource dependence theory holds that the operational environment of the firm is reflected in its board structure

(Hillman, Cannella Jr., & Harris, 2002; Pfeffer & Salancik, 1977), which entails that directors are selected according to their ability to facilitate access to required resources. The resource dependence theory proposes that the board of directors is a mechanism for reducing transaction costs associated with environmental interdependency, helps managing external dependencies and reduces environmental uncertainty (Hillman et al., 2002). Firms with larger and/or more diverse boards are expected to have greater access to resources that can be translated into improved operating performance. According to the resource dependence theory, these resources, often referred to as board capital, increase with board size. Dalton et al. (2015)support large board size and they argue that large board will expose firms to great business connections and critical resources . Resource dependence theory favor's large board size, (Ujunwa, 2012)

The Risk Management Theory

Risk refers to a situation where the possible consequences of a decision taken or to be taken are unknown. It implies the extent to which the results of a decision made may lead to loss or unfavorable outcome. As Strong (2008) points out, the risk is an integral part of any investment decision taken and therefore management against underwriting and solvency risks is important as it will improve the financial performance of the organization. The importance of risk management can never be refuted as far as the sustainability of any organization in the long term is concerned. It involves the identification and evaluation, as well as prioritization of risks pertaining to any institution, entity or aspect of an entity. This would be followed by a coordinated, as well as economical utilization of resources in an effort to reduce, control and monitor the impact and probability pertaining to the unfortunate event which may firm performance. Solvency risk is the probability of an institution not to meet its short, middle and long-term financial obligations or in the event of cessation of activity or liquidation (Nyabwanga, 2013). Risk management is a continuous process that requires an organization to sufficiently implement security measures in order to reduce threats and vulnerability of its private information. This theory will be essential in this study as it will help managers have a clear perspective of risks relation to their operations. Risk assessment should be a mandatory step as well as defining their probability of undertaking. Risk Assessment refers to the process of examining what may cause harm during work time in order to weigh up whether enough precautions have been taken to minimize risks as much as possible or whether there is need for more control actions to prevent harm (Titterton, 2005). This study will help in discussing about underwriting and solvency risks thus forming part of the other sources that will familiarize managers about organizational risks and their impact on the financial performance.

3. Methodology

The study adopted the correlational research design. The design is informed by the research paradigm which is the positivism approach. The population of the study comprised of all the thirty (30) insurance firms listed on the Nigeria stock exchange (NSE)and the adjusted population is twenty six(26) based on the availability of data, covering the period 2012-2017. The financial data used for the study is secondary in nature obtained from the annual reports. This study focused on the relationship between board characteristics and risk management on financial performance of listed insurance companies in Nigeria for the period of 2012-2017 where the board structure consists of board size and board independence and risk management consist of underwriting risk and solvency risk as independent variables . While return of asset (ROA) as dependent variable. The study used data extracted from secondary source based on the annual reports of 26

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_k X_{kit} + e_i t \ldots \ldots \text{equation. 1}$$

Where;

Y_i is the dependent variable; β_0 is constant of the model when all independent variables are said to be zeros. X_1i, X_2i and X_{ki} are the independent variables of the model and "i" is individual company for the estimation and finally e_i is residuals of the model.

Base on the model of this study therefore, this study comprises the explained variable and explanatory variables. Thus, the dependent variable which is financial performance(ROA) is measured using net profit after tax divide by total asset Sissay (2017). The financial performance ROA reflects how well a company management is using the company real investment resources to generate profits. The higher financial performance ROA reflects higher managerial efficiency of the company's and vice versa.

The explanatory variables for this study comprises board structure mechanism (board size and board independence). Board size (BSIZE) is measured as total number of directors on the board as supported by Zedan and Abu Nassar (2015). Board independence (BIND) is measured as the proportion of independent non-executive directors to the number of directors on the board of company each year as supported by Boateng and Brahma (2017), and risk management (underwriting risk and solvency risk).Underwriting risk(UWR) is measured as the ratio of claims incurred divided by premium earned supported by Sissay(2017).Solvency risk(SR) is measured as a ratio of total liability divided by total assets as supported by Sissay(2017)

Therefore, the model of the study is expressed below;

$$ROA_{it} = \beta_0 + \beta_1 BIND_{it} + \beta_2 BSIZE_{it} + \beta_3 UWR_{it} + \beta_4 SR_{it} + E_{it}$$

……..……equation 2

Descriptive statistics is used on the data collected where the mean distribution and standard deviation of both the dependent and explanatory variables are considered. In addition, the correlation and variance inflation factor (VIF) are also calculated to determine the multi-collinearity issues. The regression model is estimated Generalized least squares technique which according to J.m.wooldridge (2011)provides a consistent estimate of β_0 (intercept) and $\beta_{1\text{-}2}$ (slopes).

Where;

ROA = Financial performance

BIND = Board independence

BSIZE = Board size
UWR = Underwriting risk
SR =Solvency risk
E = Error term

i indicator for cross sectional data
t indicator for time series data
it indicator for panel data
β_0 denote constant of the model
β_1 is the parameter of BIND
β_2 is the parameter of BSIZE

Based on the variables of the study, this research employed multiple regressions on the panel data. This is because, this method is found suitable for this study since the issue of linearity is fulfilled. The study employed Generalized Least Square. This is because, the study suffered from heteroskedasticity thus, making random effect model inappropriate since their parameters could be biased as a result of the presence of heteroskedasticity (Alzoubi, 2016; Boadi & Li, 2015; Wooldridge, 2002). In addition to why the use of GLS is the study choose random effect based on the Hausman test as it is insignificant hence, the use of random effect model which is overcome by the presence of heteroskedasticity.

4. Data Presentation and Discussion

In this section, data collected in the course of carrying out the study were presented and discussed. The hypothesis formulates for the study was tested to determine the effect of Board characteristics on timeliness of financial reporting.

Table 4.1 Descriptive Statistics

Variable	Obs	Mean	Std.Dev.	Min	Max
ROA	156	.012	.083	-.409	.223
SR	156	.582	.308	.054	.134
UWR	156	.354	.175	.006	.233
BSIZE	155	8.832	2.006	4	15
BIND	156	.039	.063	0	.25

Source: summary of STATA OUTPUT

Table 4.1 provides a summary of the descriptive statistics of the dependent and independent variables for the sampled listed insurance firms in Nigeria. This shows the average indicators of variables computed from the financial statements. The return rate measured by return on asset (ROA) reveals an average of 1.2percent. This picture suggests a poor performance during the period under study. The ROA measures the contribution of net income per naira (local currency) invested by the firms' stockholders; a measure of the efficiency of the owners' invested capital. The minimum and maximum values of ROA were -0.409 and 0.223 respectively. That means the most profitable insurance firms earned N0.22 of net income from a single N1 of asset investment and the maximum losses incurred by the insurance firms is -N0.41 on each N1 of asset investment. The standard deviation of ROA of 0.08 shows low variability across insurance firms.

The mean value for solvency risk as measured by ratio of ratio of total liability divided by total assets is 58.2% with standard deviation of 0.306 indicating low variability across the listed insurance firms in Nigeria. The minimum and maximum rates are 5.4% and 13.4% respectively. In addition, the mean value of underwriter risk is 35.4% while the standard deviation of 0.175 shows low variability across the listed insurance firms in Nigeria. The minimum and maximum rate of underwriter risk are 6% and 23.3% approximately. Finally, the average members on board is 9 approximately, with a corresponding standard deviation of 2.006. The minimum and maximum members are 4 and 15 respectively. On the other hand, Board independence (BIND) has a mean value of 0.039, with a standard deviation of 0.063. Maximum and minimum proportion of board independence are 0 and 0.25 respectively.

Table 4.2 Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)
(1) ROA	1.000				
(2) SR	-0.472*	1.000			
	0.000				
(3) UWR	-0.035	-0.034	1.000		
	0.666	0.669			
(4) BSIZE	0.237*	-0.322*	-0.096	1.000	
	0.003	0.000	0.236		
(5) BIND	0.160*	-0.083	-0.047	0.157	1.000
	0.046	0.305	0.561	0.052	

Source: Summary of STATA OUTPUT

From the correlation matrix table 4.2, it can be seen that board independent (BIND) and board size (BSIZE) are positively correlated with return on (ROA) of the listed insurance firms in Nigeria, implying that the variables move in the same direction with ROA. On the other hand, solvency risk and underwriting risk are negative correlation with ROA. The implication is that the above variables move in the opposite direction with the ROA. Relatively, the table indicates that there is negative correlation between underwriting risk (UWR), board size (BSIZE), board independence (BIND) and solvency risk (SR). However, it further shows that there is negative relationship exists between board size (BSIZE), board independence (BIND) and underwriting risk (UWR). Finally, there exists positive relationship between board independence (BIND) and board size (BSIZE).

Residual tests

To test for the existence of heteroskedasticity, the present study used Modified Wald for group wise. The study reveal that chi2 of 29735.05 with p-value of 0.0000, implying presence of heteroskedasticity and that the null hypothesis that the variation of the residual is constant (homoskedastic) is rejected. The study conducted multicollinearity test to show there is correlation among the explanatory variables themselves, which may affect the result of the study. Hence, variance inflation factor (VIF) was carried out and the values for the explanatory variables are less than 10 and the tolerance values for all the variables are greater 0.10 (threshold). This shows there is absence of multicollinearity. The hausman specification test was carried out to choose between the random and fixed effect model. The result of the hausman test revealed that the value of chi2 is 2.95 and the prob>chi 0.5666. The insignificant value as reported by the probability of chi2 indicates that the hausman test is in favor random effect model. Further to this, the Breusch and Pagan lagrangian multiplier test for random effect was conducted to choose between the random effect result and OLS regression. The result deduced from the test showed chi2 of 27.29 with the p-value of 0.000. This implies that random effect regression model should be interpreted. However, due to the problem of random effect heteroskedasticity, Generalized Least Square regression will be used to analyze the data.

Table 4.3 Cross-sectional time-series GLS regression

ROA	Coef.	St.Err.	t-value	p-value	Sig
SR	-0.117	0.020	-5.97	0.000	***
UWR	-0.060	0.029	-2.08	0.037	**
BSIZE	0.003	0.003	0.83	0.405	
BIND	0.181	0.093	1.94	0.052	*
Constant	0.069	0.034	2.01	0.044	**

Mean dependent var	0.013	SD dependent var	0.083
Number of obs	155.000	Chi-square	55.866
Prob > chi2	.000		

*** p<0.01, ** p<0.05, * p<0.1*

Source: Author's computations generated with Stata 13 software

Table 4.3 reported a beta coefficient of -0.117 with a p-value of 0.000 that is statistically significant at 1%. The result indicates that solvency risk has a negative and significant effect on financial performance of the sampled firms during the study period. This implies that an increase in solvency risk, certainly lead to a decrease in performance of insurance firms. It means that higher debt to asset ratio leads to a need of external funding and therefore performance of insurance firms could be affected adversely. This provides evidence to reject null hypothesis which states that solvency risk has no effect on the financial performance of listed insurance firms. This finding is consistent with the proposition of the risk management theory and that ofKyule(2015), who found negative relationship solvency risk between financial performance.The result however, contradicts the findings Dabo,Afang and James(2018), who found positive relationship between solvency risk and financial performance.

Table 4.3 further reported a negative relationship between underwriting risk and financial performance that is significant at 5% based on coefficient of -0.06 and a p- value of 0.037. This implies that an increase in underwriting risk, certainly lead to a decrease in performance of insurance firms. This entails that while the costs and claims would be higher than the premiums received, the insurer could not raise sufficient revenues from premiums to cover claims or sum insured. Negative connection between the underwriting risk and the insurers' financial performance is expected, since taking an excessive underwriting risk can affect the company's stability through higher expenses. This provides evidence to reject null hypothesis, which states that underwriting risk has no effect on the financial performance of listed insurance firms. This finding is consistent withthe proposition of the risk management theory and of Asemeit (2014), who found that underwriting risk has strong effect on financial performance.

In addition, the result shows that board size has a positive and insignificant relationship with financial performance of listed insurance firms. As is indicated by the coefficient 0.003 with p-value of0.405. Based on this, the study fails to reject the null hypothesis that there is no significant relationship between board size and financial performance of listed insurance firms in Nigeria.

Finally, the result obtained shows that the coefficient of board independency is positive and statistically insignificant. As this is shown by the coefficient of 0.181 with p-value of 0.052. Therefore, we fail to reject null hypothesis which states that board independence has no significant effect on financial performance of listed insurance firms.

5. Conclusion and Recommendations

Based on the result of data analysis and discussion, the study concludes that there is negative and significant relationship between solvency risk and underwriting risk. However, positive relationship between board size, board independence and financial performance is not significant. In line with the findings of this study for, we therefore recommend that insurance firms in Nigeria should lower their solvency risk by buying reinsurance contracts from reinsurers and solvency risk guidelines should be established in order to mitigate against solvency risks a better performance. More so, insurance firms should strive to attract more customers and boost their income through provision of enhanced estimation technique on insurance policy premium price to maximize their net premium earning and net asset. Since the country is growing and transforming into the age of industry with the existing paid up capital, it will be likely for insurance companies to face solvency risk.

It is further recommended that insurance firms should focus more on optimizing their risk management practices, especially with respect to risk analysis (underwriting) as a basis for pricing and premium determination to avoid the common practice of price undercutting that is prevalent in the markets, as this will translate to better quality service, reputation, enhanced business and better underwriting performance (by lowering the loss ratio) resulting in better firms' performance. Insurance firms should offer adequate diversification of insurance policy portfolio to have better premium earning that can compensate other loss when it's occurred. Hence, insurance companies should give due attention on these areas to reduce the effect of underwriting risk for their performance.

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