# Ownership Characteristics and Capital Structure of the Selected Insurance Firms in Nigeria

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#### Abstract

he corporate governance structure delineates the allocation of rights and responsibilities among diverse stakeholders within a business enterprise. Anticipated to impact the realization of corporate objectives with minimal costs, corporate governance mechanisms furnish the means to monitor performances. This study investigated the effect of ownership structure on capital structure of the selected insurance firms in Nigeria. The study uses secondary data which were extracted from fourteen (14 sampled insurance firms listed in the Nigerian Group Exchange (NGX) for the period 1992-2022. The study used Multiple Regression analysis of data and fixed effect result was accepted based on the Hausman specification test result. The results showed reveals that firm ownership concentration has a positive significant effect on the capital structure of insurance firms in Nigeria, managerial ownership has a negative significantly positive effect on the capital structure of insurance companies in Nigeria in Nigeria. Furthermore, the control variable, firm age, has a statistically significant negative effect on the capital structure of the sampled firms in Nigeria. Based on the findings and conclusion the study recommends among others that, the study recommended that they should be training for board members and executives on best practices in corporate governance and capital structure management. This can help firms navigate the challenges associated with ownership concentration and make informed financial decisions.

**Keywords:** Ownership Structure, Ownership concentration, Financial managerial ownership, Capital structure, Financial Leverage.

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#### **Background to the Study**

The corporate governance structure delineates the allocation of rights and responsibilities among diverse stakeholders within a business enterprise. Anticipated to impact the realization of corporate objectives with minimal costs, corporate governance mechanisms furnish the means to monitor performances. This, in turn, fortifies the protection of interests and instills confidence in investors. Among the internal mechanisms of corporate governance is the ownership structure, as noted by Ma (2010). Previous to the 2005 recapitalization of insurance companies in Nigeria, the National Insurance Commission (NAICOM) identified some factors and challenges among others that restricted the Nigerian insurance industry to perform significantly. These challenges include; under capitalization of existing industry players, dearth of appropriate human capital, poor returns on capital, existence of too many fringe players and poor asset quality. In view of the above problems identified by NAICOM, reform was introduced on 5th September, 2005 and ended on 28th February, 2007. Besides, eleven (11) years after completion of the reform; the official report revealed that the performance of insurance companies in Nigeria still remains below average.

A company's capital structure determines how its operations and expansion are financed. To maximize a company's profits and distribute a larger portion of those gains to its equity shareholders, management needs to determine the firm's financial needs and then raise those needs from a variety of sources in proportions that make the most sense. Because it serves as the cornerstone of capital structure theory, the Modigliani and Miller (M&M) theorem has widespread acceptance. Recognized as a framework, it aids businesses in gaining focus and purpose in their operations. It is the driving force behind a free-market economy and the foundation of a democratic society. According to Simon and Afolabi (2011), this is a company's financial performance.

However, from the agency theory, total agency cost is minimized by the use of an optimal structure of leverage and ownership (Jesen & Meckling, 1976; Jesen, 1986). It is implied that there is some relationship between ownership by managers and leverage. Bokpin and Arko (2009) have found evidence to support this positive relationship between managerial ownership and leverage. Other empirical evidences have, however, established contrary findings implying that firms with higher managerial ownership have less leverage (Huang & Song, 2006; Abor, 2008). Abor (2008), however, found a positive relationship with short-term debt.

The empirical works have shown that some of the studies such as (Driffield et al, 2024; Bokpin and Arko ,2024; Brailsford ett al, 2024; Chadha and Seth, 2024; Al-Najjar and Taylor, 2024; Butt and Hasan, 2023; Khan and Suzuki ,2015; Mondher and Hatem,2011;) used a statistical tool of ordinary least square regression technique for the panel data instead of panel regression technique as postulated by Hausman (1978) which affect the reliability of the findings. In a related development, the empirical works have also shown that most of the studies such as (Biswajit & Kailash, 2020; Saira, 2019: Morteza, Mehdi & Gholamreza, 2019) carried out in recent times of 2019/2020 regarding the impact of firm characteristics on capital structure decision making in Nigeria and other countries of the world were not current

in the data used for the analysis as all the data were within 2017 and earlier. Furthermore, studies conducted in Nigeria in this area were very scanty while most of these studies (Biswajit & Kailash, 2020; Janthorn & Navee, 2015; Lina, Fengju Iqbal & Akther, 2020; Mahnazmahdavi, et al., 2013; Morteza, Mehdi and Gholamreza, 2019; Mostafa, et al., 2018; Nyanamba, et al., 2013; Saira, 2019; Siti & Hassan, 2015) were done in other countries of the world. These gaps in literature call for further study in this area which necessitated this study on the impact of firm ownership characteristics on capital structure decision making of quoted insurance companies in Nigeria.

## Statement of Hypotheses.

**Ho**<sub>1</sub>: Firm ownership concentration has no significant effect on capital structure of listed insurance firms in Nigeria.

**Ho**<sub>2:</sub> Managerial ownership has no significant effect on capital structure of listed insurance firms in Nigeria.

#### Literature Review

#### Concept of Ownership Structure

Ownership structure is defined by the distribution of equity with regard to votes and capital as well as the identity of the equity owners (Jensen & Meckling, 1976). These structures are of major importance in corporate governance because they determine the incentives of managers and also the economic efficiency of the corporations they manage.

Alipour and Amjadi (2019) defined ownership structure as the composition of the biggest five shareholders, which includes a combination of institutional shareholders, individual and managerial shareholders. Shah, Safdar and Mohammad (2018) saw Ownership structure as the percentage of shares held by Directors. Khalil, Syed, and Zahid, (2012) viewed Ownership structure as the composition of managerial ownership and concentrated ownership. Uwalomwa and Olamide (2015) viewed ownership structure as decisions made by those who own or who would own shares. They measured ownership structure as the composition of Board ownership, Institutional ownership and foreign ownership.

## **Ownership Concentration**

Ownership Concentration: Ownership concentration is a measure of the existence of large shareholders in a firm. Zhang (2006) defined Ownership concentration as stockholder's ownership proportion. It can also represent the concentration degree of ownership in firms, which means large shareholders proportion in a firm. Zhang (2006) further reiterated that there are three types of ownership structure. First, absolute concentration of ownership, that is, there is only one stockholder who has the absolute power to control the firm and usually keep 50% ownership; Second, absolutely dispersed ownership, implying that there are numerous stockholders; there is complete separation of ownership and control when the share ownership is highly concentrated than individual ownership as they keep share below 10%. Third, where there coexists relative concentration of ownership and some large shareholders in a firm. However, in the firm, which has relative concentration of ownership and some large shareholders, ownership structure can almost decide the composition of

board. It is always assumed that only shareholders who hold large share may closely monitor the management of board. Dispersed shareholders have little or no incentive to monitor the management and may have no power to decide for the board. Then, some large shareholders control the exercise of board; they hire managers to act on their behalf. They may use their voting power to improve their own position at the expense of other shareholders Lina, Mohammad, Nimer & Alnimer (2013) saw ownership concentration as the percentage of the largest and the second largest managerial block holders who owns at least 10% of the total shares in a firm. Andrei, Rostislav and Natalya (n.d) saw ownership concentration as the percentage of share held by the largest shareholder. Javid and Robina (n.d) defined ownership concentration as the percentage of top five shareholders of the firm.

#### **Managerial Ownership**

Managerial ownership is gauged through the proportion of firm shares owned by insiders and board members or insider ownership (Wahla, Shah & Hussain 2012). This type of ownership has also been viewed as a potential effective mechanism of corporate governance. According to Jensen and Meckling (1976), it provides a potential incentive to align the management interests to that of shareholders. Contrarily, according to Millet-Reyes and Zhao, (2010) high managerial ownership may lead to management entrenchment because they are less subjected to board of directors' governance and to market discipline for corporate control

## **Capital Structure**

A company's capital structure determines how its operations and expansion are financed. To maximize a company's profits and distribute a larger portion of those gains to its equity shareholders, management needs to determine the firm's financial needs and then raise those needs from a variety of sources in proportions that make the most sense. Because it serves as the cornerstone of capital structure theory, the Modigliani and Miller (M&M) theorem has widespread acceptance. Recognized as a framework, it aids businesses in gaining focus and purpose in their operations. It is the driving force behind a free-market economy and the foundation of a democratic society. According to Simon and Afolabi (2011), this is a company's financial performance.

It also refers to the make-up of the source of funds employed to finance the operations of a firm. This is seen in the level of financial leverage of a firm. Financial Leverage refers to the extent to which a firm's operations are funded with debt with the hope of improving the firm's financial performance. Leverage financing is commonly employed by a company to achieve a specific or temporary objective, such as the acquisition of another business, to affect a buy-out, to purchase shares or fund a one-time dividend, or to invest in self-sustaining cash-generating assets (Pachori & Tatala, 2012). Leverage financing, on the other hand, refers to the ratio of debt to the equity capital of a company. As a result of the payment of interest and repayment of the principal amount of the debt a large part of the firm's cash flow would decrease (Magpayo, 2011). Financial leverage also involved the use of debt to acquire additional assets. It can be financial or operating leverage.

Financial leverage is the use of borrowed money to increase production volume and sales as well as earnings of a company for better performance. It is measured as the ratio of total debt to equity of a firm (Yoon & Jang, 2005). The greater the amount of debt, the greater the financial leverage of a firm. Since interest is a fixed cost which can be written off against revenue, a loan allows an organization to generate more earnings without a corresponding increase in equity capital which will require an increase in dividend payment that cannot be written off against the firm's earnings (Magpayo, 2011). However, high leverage may be beneficial in boom periods; and it may cause serious cash flow problems in recession periods because there might not be enough sales revenue to cover the interest payment (Tudose, 2012). The use of leverage is the ability of a firm to influence a system, or an environment in a way that multiplies the outcome of one's efforts without a corresponding increase in the consumption of resources. In other words, leverage is the advantageous condition of having a relatively small amount of cost yield and a relatively high level of returns (Ojo, 2012).

## **Empirical Review**

Driffield et al (2024) examines the effects of ownership structures on capital structure and firm valuation. It argues that the effects of separation of control from cash flow rights on capital structure and firm value also depend on the separation of control from management as well as on legal rules and enforcement defining investors' protection. We obtain firm-level panel data (three stage least squares, 3SLS) estimates from four of the East Asian countries worst affected by the last crisis. There is evidence that the general wisdom that higher control than cash flow rights may lower firm value may be reversed among owner-managed family firms in the sample countries.

Bokpin and Arko (2024) examined the effect of ownership structure and corporate governance on capital structure decisions of firms on the Ghana Stock Exchange (GSE). To analyze the impact of ownership structure and corporate governance on firms' financing decisions, unbalanced panel data covering a period from 2002 to 2007 is employed using the seemingly unrelated regression approach to mitigate the effects of multicollinearity among the regressors. The regression results reveal that managerial shareholding significantly positively influences the choice of long-term debt over equity. Among the corporate governance variables, board size is found to be positively and statistically significantly related to capital structure choices. Firm level factors such as volatility in earnings, asset tangibility, dividend payout ratio and profitability are significant determinants of corporate capital structure decisions on the GSE. The findings are largely consistent with theories of capital structure decisions observed in the literature.

Brailsford et al (2024) examined the link between ownership structure and capital structure. Using an agency framework, it is argued that the distribution of equity ownership among corporate managers and external blockholders may have a significant relation with leverage. The empirical results provide support for a positive relation between external blockholders and leverage, and non-linear relation between the level of managerial share ownership and leverage. The results also suggest that the relation between external block ownership and leverage varies across the level of managerial share ownership. These results are consistent

with active monitoring by blockholders, and the effects of convergence-of-interests and management entrenchment.

Chadha and Seth (2024) studied the impact of ownership structure on the capital structure of the Indian manufacturing firms. The sample with a size of 1,150 manufacturing firms listed on Bombay Stock Exchange (BSE) of India and period of ten years from 2007 to 2016 has been deployed for purpose of the study. Panel data fixed effect model has been applied to test the relationship between capital structure and corporate governance factors. It was found that the ownership structure affects the capital structure decisions of the Indian manufacturing firms. Likewise, control variables like tangibility, age, growth, profitability and size are found to be significantly correlated with the firm's financial leverage. Thus, the findings of the study would enrich the literature on capital structure and comprehend the importance of ownership structure for the management of long-term funds.

Al-Najjar and Taylor (2024) investigate the comparatively under-researched relationship between ownership structure and capital structure in an emerging market. It is also one of the first studies to apply both single and reduced-form equation methods using a panel data approach. The study applies econometrics modelling using both single equation and reduces equation models for panel data. The results demonstrate that Jordanian firms follow the same determinants of capital structure as occur in developed markets, namely: profitability, firm size, growth rate, market-to-book ratio, asset structure and liquidity. In addition, institutional ownership structure is found to be determined by: assets structure, business risk (BR), growth opportunities and firm size. Finally, the results reveal that assets tangibility, firm size, growth opportunities and BR are considered to be joint determinants of ownership structure and capital structure.

Butt and Hasan (2023) explored the relationship between corporate governance and capital structure of listed companies in an emerging equity market, Pakistan. The study covers the period 2002 to 2005 for which firm level data for 58 randomly selected non-financial listed companies from Karachi Stock Exchange has been examined by using multivariate regression analysis under fixed effect model approach. Measures of corporate governance employed are bored size, board composition, and CEO/Chair duality. Impact of shareholding on financing decisions has also been examined by using managerial shareholding and institutional shareholding. Similarly influence of controlled variables like firm size and profitability on firms' financing mechanism is also investigated. Results reveal that board size and managerial shareholding is significantly negatively correlated with debtto equity ratio. However, corporate's financing behavior is not found significantly influenced by CEO/Chair duality and the presence of non-executive directors on the board. However, control variables firm size and return on assets are found to have a significant effect on capital structure. No temporal effects are observed.

Khan and Suzuki (2015) examined capital structure and managerial ownership: Evidence from Pakistan. They used secondary data collected from the annual reports of non-financial firms listed on the Karachi Stock Exchange in Pakistan between 2008 and 2012. The study

used random effect regression model to test their hypotheses. The study found a significant relationship between managerial equity ownership and leveraging. At a low level of managerial ownership, it is positively related to debt-equity ratio, assuming that managers use more debt, possibly seeking for higher returns on equity or higher stock price by leveraging. An inverted U-shaped relationship suggests that leveraging would be diminished after the point where managers become major residual claimants by owning a certain amount of equity ownership. The study used a panel regression technique which is a good method for this kind of study and provides reliable results.

Mondher and Hatem (2011) examined how managerial ownership explains the effect of leverage on firm value? An analysis of French listed firms. They used a sample of 246 French companies of the SBF 250 and observed over the period 1997-2007. Data analysis was carried out using a priori classification approach. They found that the influence of debt on firm value is non-monotonic, reflecting the importance of managerial ownership as a determinant of this relationship. Indeed, for low /high levels of managerial ownership, debt conveys a negative signal to investors confirming an entrenchment/expropriation effect of minority shareholders. The disciplinary role of debt is much more pronounced for moderate levels of managerial ownership justifying an effect of alignment of interests between managers and shareholders.

Abor (2008) examined the determinants of the capital structure of Ghanaian firms. The study used a panel regression model. The results show that quoted and large unquoted firms exhibit significantly higher debt ratios than do SMEs. Also, the results reveal that age of the firm, size of the firm, asset structure, profitability, risk and managerial ownership are important in influencing the capital structure decisions of Ghanaian firms. For the SME sample, it was found that factors such as the gender of the entrepreneur, export status, industry, location of the firm and form of business are also important in explaining the capital structure choice. The study used a panel regression technique which is a good method for this kind of study and provides reliable results.

Goranavo et al. (2007) examined the managerial ownership and corporate diversification: A longitudinal view in Standard and Poor's (S&P) 500 companies. The data were sourced from ExecuComp and Compustat's Industrial Annual and Segments databases, 3CDA/Spectrum Thom-son Financial's 13F database, and Compact Disclo-sure annual tapes for the period 1994–99. The study used a longitudinal approach while random effect model was used to test the hypothesis. The result shows that higher levels of corporate diversification are associated with changes in managerial ownership which suggests support for the employment risk-reduction perspective. This study was carried out in the paste which need to be updated to capture the current trend.

# Theoretical Framework Agency Cost Theory

In modern corporations, there is a separation of ownership and control where most firms are managed by managers who act as agents of shareholders. These managers do not necessarily

own shares in the firm and as such this relationship is fraught with agency problems. The shareholders and managers, consciously or unconsciously, serve their interests. While shareholders would want to see the maximisation of firm value, the management may want to maximize their selfish interests. Examples of such interests may be to invest in certain projects which yield the best result on net profits in the short term to inflate their bonuses. Also, they may be inclined to misuse company funds by incurring huge on job expenses (Gwatidzo, 2008). The investors of a firm are aware of the managers' opportunistic behaviour and thus take it into account when valuing the firm's shares. They will offer a lower price than when there is no opportunistic behaviour. According to the agency theory, the observed capital structure of a firm should thus aim to minimize the potential for opportunistic behaviour in the firm. The extent of opportunistic behaviour depends on the environment in which the firm is operating. For example, an efficient legal system that protects investors' rights curbs opportunistic behaviour by management. In most developing economies the legal system is not efficient; therefore, there are high chances for opportunistic behaviour by management.

Some of the ways of mitigating the conflict between management and investors (Gwatidzo, 2008) are: Issuing debt - Issuing debt rather than equity forces management to contractually commit themselves to a given level of payment to investors (lenders), thus reducing opportunistic behaviour; Issuing short-term debt – Issuing short-term debt forces management to the negotiation table periodically, thus making the issuance and payment of debt more like a repeated game in which the management is punished by the creditors if they are seen to be behaving in any way detrimental to the creditors; In addition to the above, the conflict of interest between equity holders and debt holders can be mitigated by designing debt covenants that protect the interests of debt holders; if a long-term debt is issued, it may be secured with specific assets; and another way is to just increase debt levels in industries where the potential for opportunistic behaviour is high.

#### Methodology

This study adopted ex-post factor research design. This method is suitable for the study because it is not possible to directly manipulate or control any of the independent variables as the events have already taken place and therefore the research is being conducted after the fact. Hence, ex-post factor research design was adopted because it helps this study to explain the effect of the independent (explanatory) variable on the dependent variable. The population of a study involves gathering different components that can be considered as options (Cooper & Chandler, 2003). In the period under investigation, there are 39 quoted insurance companies on the Nigerian insurance companies identified as potential components for inclusion in the study.

To ensure a representative subset of the population, a simple random sampling technique was employed. The study uses fourteen 14 insurance companies from the pool of 39 identified in the Nigeria Exchange Group on the basis of length of existence and data availability.

The selection of the sample size was based on the following filter criteria:

i. That the financial statement of such companies shall be available between the research periods (1992-2022)

ii. That company with unavailable or incomplete set of annual reports will be eliminated.

The sample size of the study was derived by using some criteria. The criteria are that the companies are listed and they have complete data in the annual reports. For this reason, the number of the companies reduced fourteen (14). The technique of data analysis employed by this study was panel multiple regression analysis. The study adopted this technique and ascertained the impact of firms' ownership characteristics proxies by ownership concentration and managerial ownership. The data was analyzed using Stata 17 and the outcome was used to test the research formulated hypotheses. In view of this, panel data analysis was adopted for the study. This current study adapts the econometric style of, Bilal, *et al.*, (2012), Anila (2013), Musharof and Yakub (2014), Mohammad, *et al.*, (2015), Pranesh (2015), Adaramola and Olarewaju (2015) and Semra, *et al.*, (2016). Various robustness tests were carried out to test the validity of the research results.

Capital structure is proxied by financial leverage (FL) which is measure through total debt to total equity and is a function of firm ownership structure, which are ownership concentration (FOC) and managerial ownership (MO)] with firm age (FAG) as a control variable.

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Therefore;
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FL = f(FOC, MO, FAG)

Econometrically, the above equation is rewritten into different models as follows:

$$FL_{it} = \beta_0 + \beta_1 FOC_{it} + \beta_2 MO_{it} + FAG_3 + \mu_{it}$$
 -----(1)

Where:

 $\beta_1, \beta_2, \dots, \beta_n$  are parameters to be estimated with a-priori expectations.

 $B_1$  and  $\beta_3 > 0$ 

 $\beta_1, \beta_2, \beta_3 < 0$ 

FL= Financial Leverage, FOC = Firms' ownership concentration, MO = Managerial ownership

FAG = Firm Age,  $\beta_o$  = Constant, e = Error term, i = Firms, t = Periods

**Table 1:** Below explains the Variables under Study

Variable	Acronym	Type of variable	Measurement	Justification
Financial Leverage	FL	Dependent	Total debt/Total equity	Adaramola and Olarewaju (2015); Pranesh (2015); Saber <i>et al</i> (2012); Saira (2019).
Firm Ownership Concentration	FOC	Independent	Firm ownership (FOP) is measured by the fraction of closely held shares including shares held by owners who hold up to 5% and above.	Majid et al (2017); Mohammad et al (2015); Mostafa et al (2018).
Managerial Ownership	MO	Independent	This is the proportion of shares held by the executive directors.	Abor (2008); Khan and Suzuki (2015).
Firm Age	FAGE	Control variable		

Source: Researcher's compilation, 2023

#### **Result and Discussion**

**Table 2:** Descriptive Statistics

Variables	Mean	Std. Dev.	Min	Max
Lev	.2273171	.1973533	.013035	.84779
Foc	.1343216	.1270104	.000208	.592233
Mo	.2271668	.1551392	.01	.522
Fage	55.55484	64.06538	1	302

Source: Stata 17 output 2024

Table 2 presents descriptive statistics for a sample of 460 observations across seven variables related to firm ownership structure and capital structure. The average financial leverage among the firms is approximately 22.73%, with a standard deviation of 19.73%. This indicates moderate variability around the mean leverage. The minimum leverage is almost zero, suggesting some firms have very little debt, while the maximum leverage is 84.78%, indicating some firms rely heavily on debt financing.

The average ownership concentration among the firms is approximately 13.43%. This means that, on average, 13.43% of a firm's shares are held by the largest shareholders or a concentrated group of shareholders. This indicates a relatively dispersed ownership structure for most firms. The standard deviation of 12.70% indicates a significant variability in ownership concentration across the firms. This suggests that while some firms have a relatively concentrated ownership structure, others have a more dispersed one. The average managerial ownership in the firms is approximately 22.72%. This suggests that, on average, managers or executives within the firm's own about 22.72% of the company's shares. The standard deviation of .1551392 indicates moderate variability in managerial ownership among the firms. Some firms have managerial ownership significantly different from the

average, with managers owning either more or less of the company's shares. The average age of the firms in the sample is approximately 56 years. This suggests that, on average, the firms have been in existence for nearly six decades. The standard deviation of 64.06538 indicates a considerable amount of variability in firm age among the sample.

**Table 3:** Correlation Matrix

Variable	Lev	foc	Mo	fage
Lev	1.0000			
Foc	-0.2040	1.0000		
Mo	-0.3273	-0.0225	1.0000	
Fage	0.2774	-0.2798	-0.1347	1.0000

**Source**: Stata 17 output 2024.

Based on the evidence presented in Table 3, it can be concluded that there is no multicollinearity problem. This is because the VIF values for all the variables are less than 10 and the tolerance values for all the variables are greater than 0.10 (rule of thumb). Further, Gujarati (2003) suggests that a VIF value of less than 10 is acceptable; the maximum VIF value is 1.11. The low mean VIF (1.07) is also an indicator to the minor correlation among the regressors. This shows the appropriateness and fitness of the explanatory variables used in the model.

**Table 4:** Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Breusch-Pagan / Cook-Weisberg test for	Prob > chi2 = 0.1217
heteroskedasticity	
Ho: Constant variance	
Variables: fitted values of FL	
chi2(1) = 0.76	

Source: Stata 17 output 2024.

The result of the Breusch-pagan / Cook-Weisbaerg test for the study shows that the chi2 value is 0.76 the p-value of chi2 is 0.1217 indicating the absence of heteroscedasticity.

**Table 5:** Hausman Specification Test

$chi2(3) = (b-B)'[(V_b-V_B)^{-1}](b-B)$	Prob>chi2 = 0.0035
= 13.58	

Source: STATA OUTPUT 2024.

To decide whether to adopt the fixed effects model (FEM) or the random effects model (REM), Hausman specification test was carried out to select the preferred model. It basically tests whether the unique errors (term error) are correlated with the regressors (Hassan, 2012).

The result of the test reveals that the Ch2 value of 13.58 has a probability of 0.0035 and as such, it is significant at the 5% level. As such, the result of the fixed effects model was adopted for the study

**Table 6:** Fixed Effect Results Model

Variables	Coef.	Std. Err.	T	P> t
Foc	.3717388	.0772334	4.81	0.000
Mo	2115233	.0887196	-2.38	0.018
Fage	0002396	.0006541	-0.37	0.714
_cons	.2387455	.0425705	5.61	0.000
R-square = 0.3026				
F(3,447) = 10.24				
Prob > chi2 =				
0.0000				

Source: STATA 17 OUTPUT, 2024

In table 6, it can be observed that the  $R^2$  is 0.3026, which means that 30% of the variation in capital structure proxy as financial leverage of listed firms in Nigeria is explained jointly by the independent and control variables captured in the model. The F-statistic of F(6,165) is 5.00 which is significant at 5%. This is indicative of the fitness of the model.

#### Hypothesis One:

The regression further reveals that firm ownership concentration has a positive significant effect on the capital structure of companies in Nigeria. This is evident from the p-value of 0.000, which is significant at the 5% level. The coefficient is .3717388, suggesting that firm ownership concentration has a positive significant effect on the capital structure of the selected insurance companies in Nigeria. This implies that firm ownership concentration influence capital structure positively. Consequently, the result provides statistical evidence to reject the first null hypothesis, which states that firm ownership concentration has no significant positive effect on the capital structure of listed insurance firms in Nigeria.

## Hypothesis Two:

The regression results reveal that managerial ownership has a negative significantly positive effect on the capital structure of insurance companies in Nigeria. This is evident from the t-statistic of -2.38 and a p-value of 0.018, which is significant at the 5% level. The coefficient of -.2115233 suggests that higher managerial ownership improves the capital structure of insurance companies in Nigeria. These findings provide statistical evidence to reject the second null hypothesis, which posits that managerial ownership has no significant positive effect on the capital structure of listed insurance firms in Nigeria. The control variable, firm age, has a statistically significant negative effect on the capital structure of the sampled firms in Nigeria. This is shown by the coefficient of -.0002396 and a t-value of -0.37 and p-value of 0.714, which is not statistically significant. This suggests that the older the firms, the greater its financial leverage. But is not statistically significant in this model. significant in this model.

#### **Conclusion and Recommendation**

Based on the findings, the study concludes that firm ownership concentration has a significant effect on the capital structure of companies in Nigeria. This is evident from the p-value and t-statistic. This suggesting that firm ownership concentration has a positive significant effect on the capital structure of the selected insurance companies in Nigeria. This finding is in line with those of Brailsford et al (2024), Driffield et al (2024), Bokpin and Arko (2024), Chadha and Seth (2024). The study concluded that higher proportion of managerial ownership does not improves the capital structure of insurance companies in Nigeria. These findings provide statistical evidence that managerial ownership has an impact on capital structure, but not positive significant. Furthermore, firm age used in this study as a control variable does not contribute to capital structure of the studied insurance firms. This finding disagrees with those of Al-Najjar and Taylor (2024), Butt and Hasan (2023) and Khan and Suzuki (2015)

#### Recommendation

- i. The study recommended that they should be training for board members and executives on best practices in corporate governance and capital structure management. This can help firms navigate the challenges associated with ownership concentration and make informed financial decisions.
- ii. The study recommends that managers of the insurance companies should reduce the amount of long-term debt they have because doing so has a negative effect on their performance. They should also exercise caution when making capital structure decisions.

#### References

- Adaramola, A. O., & Olarewaju, O. M. (2015). Determinants of capital structure in Nigerian quoted composite insurance companies, *Global Journal of Management and Business Research: C. Finance, 15*(10), 7-15.
- Alipour, M. & Amjadi, H. (2013), The effect of ownership structure on corporate performance of listed companies in tehran stock exchange: An empirical evidence of iran, *International Journal of Business and Social Science* 13(11) 12-24
- Alipour, M. & Amjadi, H. (2014), The effect of ownership structure on corporate performance of listed companies in tehran stock exchange: Empirical evidence of iran, *International Journal of Business and Social Science* 13(1) 60-75
- Al-Najjar, B., & Taylor, P. (2008). The relationship between capital structure and ownership structure: New evidence from Jordanian panel data, *Managerial Finance*, *34*(12), 919-933.
- Anila, Ç. (2013). Impact of firm specific factors on capital structure decision: An empirical study of Albanian firms, *European Journal of Sustainable Development*, 2(4), 135-148.

- Bilal, S., Muhammad, A. N., & Abdul, J. K. (2012). Firm's characteristics and capital application on manufacturing firms in Borsa Istanbul, *International Academic Journal of Accounting and Financial Management*, 3(2), 47-59.
- Biswajit, G., & Kailash, C. K. (2020). Does growth affect firms' leverage adjustment speed? A study of Indian firms. *Business Perspectives and Research*, 1(1), 1–17.
- Bokpin, G., & Arko, A. (2009). Ownership structure, corporate governance and capital structure decisions of firms: Empirical evidence from Ghana. *Studies in Economics and Finance*, 26(4), 246-256.
- Brailsford, T. J., Oliver, B. R., & Pua, S. L. H. (2002). On the relation between ownership structure and capital structure, *Accounting and Finance*, 42(1), 1-26.
- Driffield, N., & Mahambare, V., & Pal, S. (2005). How ownership structure affects capital economy international, *Journal of Commerce and Finance*, *5*(1), 25-33.
- Goranavo, M., Alessandri, T. M., & Brandes, P., & Dharwadkar, R. (2007). Manageria ownership and corporate diversification: A longitudinal view, *Strategic Management Journal*, 28, 211-225.
- Gwatidzo, T. (2008). The determinants of capital structure in Sub-Saharan Africa. capital structure among micro-enterprises: A case study of micro-enterprises in Kisii Town, Kenya. *American International Journal of Contemporary Research*, *3*(7), 139-147.
- Gwatidzo, T., & Ojah, K. (2014). Firms' debt choice in Africa: Are institutional infrastructure and non-traditional determinants important? *International Review of Financial Analysis*, 31, (C), 152-166.
- Hassan, S., Muhammad, A., & Sajid, M. (2016). Effect of profitability and financial leverage on capital structure in Pakistan commercial banks, *International Review of Management and Business Research*, 5(1), 336-342.
- Hausman, J. A. (1978). Specification tests in econometrics. Econometric, 46, 1251-1271
- Janthorn, S., & Navee, C. (2015). Investigation of Thai manufacturing public firms' insurance companies in Colombo stock exchange in Sri Lanka, *International Journal of Economics, Commerce and Management, 2*(10), 1-18.
- Jensen M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers, *The American Economic Review*, 76(2), 323-329.
- Jensen, M. C., & Meckling, H. M. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure, *Unpublished Research Journal*. Harvard Business School & University of Rochester.

- Khan, S., & Suzuki, Y. (2015). Capital structure and managerial ownership: Evidence from Pakistan. *Business and Economic Horizons, 11*(2), 131-142.
- Lina, M., Fengju, X., Iqbal, N., & Akther, T. (2020). How does increased private ownership affect financial leverage, asset quality and profitability of Chinese SOEs? *Chinese Political Science Review, 1*(1), 1-4.
- Magpayo, C, L. (2011). Effect of working capital management and financial leverage on financial performance of philippine firms, *College of Business, De La Salle University*, 2401 Taft Avenue 1004 Manila
- Millet-Reyes, B., & Zhao, R. (2010). A comparison between one-tier and two-tier board structures in France. *Journal of International Financial Management and Accounting*, 21(3), 279–310
- Mohammad, A., Mir, F. S. M., & Hojjatollah, D. (2015). Determinants of capital structure: an empirical study of firms in Iran. *International Journal of Law and Management*, 57(1), 53-83.
- Mondher, K., & Hatem, B. S. (2011). Does management ownership explain the effect of leverage on firm value? An analysis of French listed firms. *Journal of Business Studies Quarterly*, 3(1), 169-186.
- Morteza, G., Mehdi, H., & Gholamreza, M. (2019). Earning volatility, capital structure: A panel data analysis of Pakistan's insurance sector, *African Journal of Business Management*, 6(14), 4939-4947.
- Musharof, H., & Yakub, K. M. (2014). Impact of firm characteristics on capital structure of banking industry of Bangladesh. *Journal of Business and Management (IOSR-JBM)*, 16(4), 17-25.
- Ojo, S. A. (2012). The effect of financial leverage on corporate performance of some selected companies in Nigeria. *Canadian Journal of Social Science*, 8(1), 85-91.
- Pachori, S., & Tatala, K. (2012). *Influence of financial leverage on shareholders returns and market capitalization: A study of automotive cluster companies of Pithampur*, India. 2th International Conferences on Humanities, Singapore.
- Pamelah, M., Kefah, B., & Simon, K. (2016). The relationship between ownership structure and leverage of firms listed in the Nairobi securities exchange, *Journal of Economics and Finance (IOSR-JEF)*, 7(3), 52-59.
- Pranesh, D. (2015). Firm characteristics and capital structure: Evidence from BSE listed non-banking financial companies in India, *Management Convergence*, 6(2), 37-44.

- Saarani, M. E., & Shahadan, O. C. (2013). The development of debt to equity ratio in capital structure. *International Journal of Entrepreneurial Behaviour and Research*, 19(2), 149-164.
- Saira, S. (2019). Firm size and financial-leverage choice evidence from an emerging sales growth on the determinants of capital structure of listed companies in Tehran Stock Exchange, *Australian Journal of Basic and Applied Sciences*, 7(2), 306-311.
- Siti, S. H., & Hassan, M. (2015). The determinants of capital structure for Malaysian food producing companies. *International Journal of Accounting & Business Management, 3*(1), 138-161.
- Sritharan, V. (2014). Determinants of capital structure a study of listed banks finance & structure and firm performance? Recent evidence from East Asia, Finance 0509028, University Library of Munich, Germany.
- Tsai, H., & Ying, F. (2008). Spillover effect of US dollar exchange rate on oil prices, *Journal of Policy Modelling*, *30*(6), 973-991.
- Tsai, L., Tserng, H., Ho, S. P., Sung, C., & Chou, Y. (2010). Developing an analytical model for the optimal capital structure of the building company, *Journal of Marine Science and Technology*, 18(3), 85-394.
- Tudose, M. B. (2012). Capital structure and firm performance, *Economy Transdisciplinary Cognition*, 15(2), 76-82.
- Uwalomwa, O. & Olamide, O. (2012), An empirical examination of the relationship between ownership structure and the performance of firms in Nigeria, *International Business Research*, 4(2)1913-9012
- Wahla, K., Shah, A. Z. S. & Hussain, Z. (2012), Impact of ownership structure on firm performance; Evidence from Non- financial listed companies at Karachi Stock Exchange, *Euros Journals Publishers*, 1450-2887
- Yoon, E., & Jang, S. (2005). The effect of financial leverage on profitability and risk of restaurant firms, *Journal of Hospitality Financial Management*, 13(1), 21-38.