Agency Costs and Firms Performance of Listed Construction and Real Estate Companies in Nigeria

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ABSTRACT

This study examined the influence of agency costs on firms' performance of listed construction and real estate companies in Nigeria. The correlation research design was adopted for this study. The eight (8) construction and real estate companies listed on the Nigeria Exchange Group as at June 2024 constitutes the population for this study. The study employed panel secondary data which were sourced from annual report and accounts of the sample companies for the periods ofs 20142023 accounting years. Pooled ordinary least square (POLS) regression analysis was used to link the relationship between agency costs and firms' performance. The results of the multiple regression revealed that there is positive significant relationship between free cash flow and return on assets of listed construction and real estate companies in Nigeria. The study found that there is positive significant relationship between asset utilization and return on assets of listed construction and real estate companies in Nigeria. Furthermore, the study showed that there is a positive link between the sales, general and administrative expenses and the return on assets of listed construction and real estate companies in Nigeria during the period under review. The study therefore recommended that regulatory bodies should encourage firms to allocate FCF towards high-return investments, such as R&D or strategic acquisitions, which directly improve ROA. Governments should offer tax benefits for firms that use a substantial portion of their FCF for reinvestment into productive assets, encouraging companies to enhance their asset base and operational performance.

Keywords: Agency Costs, Free Cash Flow, Assets Utilization, Sales General and Administrative Expense.

INTRODUCTION

Recently, agency costs have attracted considerable attention as a crucial issue affecting corporate performance, especially regarding the agency problem. From a financial management perspective, a company's principal objective is to optimize shareholder wealth. These incentives compel organizations to perpetually pursue enhanced performance. The robust success of a firm is significantly important to stakeholders, who stay fundamentally supportive of the organization. Assessing corporate performance entails utilizing techniques such as financial ratios and market value (Rohim et al., 2024; Maysuri & Dalimunthe, 2018). To attain this objective, numerous shareholders delegate firm management to a professional cohort referred to as managers (agents). The managers, designated by the owners, are anticipated to operate in the shareholders' best interests by optimizing the firm's value to guarantee financial returns for the investors. Nevertheless, in managing the company, executives may pursue concealed agendas that contradict the principal objective of serving shareholders' interests. This issue, termed management opportunism, transpires when managers prioritize their own interests such as position and remuneration even if it necessitates expansion detrimental to the organization.

The construction and real estate sectors play a vital role in Nigeria's economic growth, significantly contributing to infrastructure development, employment, and national GDP. However, the performance of listed companies in these sectors is often hindered by agency costs, which stem from conflicts of interest between managers (agents) and shareholders (principals). These conflicts result in inefficient resource allocation, lower profitability, and overall weak firm performance.

Despite the critical role of the construction and real estate sectors in Nigeria, there is a limited body of empirical research specifically examining the impact of agency costs on the performance of listed companies in these industries. This gap in knowledge restricts the formulation of effective corporate governance policies and strategies to mitigate agency costs and enhance firm performance. While several studies have attempted to explore the relationship between agency costs and firm performance, ongoing debates persist among researchers regarding the extent to which agency costs influence firm performance (Natalia & Kusumastuti, 2017; Anazonwu et al., 2018; Rohim et al., 2024; Lee & Tulcanaza-Prieto, 2024).

In Nigeria, various studies have focused on agency costs, though most have primarily examined their relationship with dividend policy rather than their direct impact on firm performance. For instance, Anazonwu et al. (2018) investigated how dividend payouts affect agency costs in selected Nigerian firms. The only known Nigerian study assessing the relationship between agency costs and financial performance in listed consumer goods companies is that of Nuhu et al. (2020), who measured agency costs using interest payment expenses divided by sales as a factor influencing the performance of consumer goods companies.

Although several studies have explored the effects of agency costs on firm performance in Nigeria, there remains a notable scarcity of research specifically examining this relationship. Moreover, studies focusing on agency costs and firm performance within Nigeria's construction and real estate sectors are particularly rare. Therefore, this study aims to bridge this gap in the literature by investigating how free cash flow, asset utilization ratio, and sales, general, and administrative (SG&A) expenses ratio function as agency cost factors influencing the performance of construction and real estate companies in Nigeria. The general objective of this study is to examine the relationship between agency costs and firms performance of listed construction and real estate companies in Nigeria. The specific objectives are to:

i. identify the influence of free cash flow on performance of listed construction and real estate companies in Nigeria.

ii. evaluate the impact of Assets utilization on performance of listed construction and real estate companies in Nigeria; and

iii. assess the influence of sales, general and administrative expenses on performance of listed construction and real estate companies in Nigeria.

Based on the review of prior studies, following testable null hypotheses were formulated.

$H0_1$: There is no significant relationship between free cash flow and firms' performance.

$H0_2$: There is no relationship between Assets utilization and firms' performance.

$H0_3$: There is no significant relationship between sales, general and administrative expenses and firms' performance.

This study contributes to the current understanding of corporate governance, agency theory, and firm performance by examining the construction and real estate sectors in Nigeria. It presents empirical data that supports the connection between agency costs and firm performance, addressing a gap in the existing literature.

This study was restricted to free flow cash, assets utilization, and sales, general and administrative expenses as agency costs factors influencing firms' performance of listed construction and real estate firms in Nigeria. The study covers Ten (10) years financial reports generated within the periods of 2014 - 2023. The period was chosen because its covers critical economic fluctuations, including the 2015–2016 recession, the COVID-19 pandemic (2020), and post-pandemic recovery phases, which had direct implications on firms' cash flow, asset utilization, and expenses.

LITERATURE REVIEW

Free Cash Flow and Firms Performance

The relationship between free cash flow and firm performance is a key area of study in corporate finance and accounting. Free cash flow represents the cash remaining after a company has made necessary investments in projects with a positive net present value. It plays a significant role in a company's financial stability and operational efficiency (Wang, 2010). The optimal level of free cash flow to be retained depends on company-specific factors, such as cash flow volatility and access to external capital markets (Richardson, 2006). This underscores the importance of effective free cash flow management in enhancing business success.

Utilization and Firms Performance

The utilisation of assets is a critical determinant of a firm's performance, directly affecting its operational efficiency, profitability, and overall financial well-being. Maximising revenue production and optimising returns on investments require efficient asset utilisation. The research conducted by Nguyen et al. (2020) highlights the importance of asset utilisation in the context of corporate governance and agency expenses. A crucial measure for assessing asset utilisation is the ratio of total revenue to total assets (Nguyen et al., 2020). Research has indicated that the efficient use of assets has a favourable impact on the value of a company and its financial success. Patin & Mustafa (2021) establish that optimal asset utilisation positively impacts firm value, whereas suboptimal utilisation might have a negative impact on firm value. The statement emphasises the crucial significance of asset management in improving overall performance results

General and Administrative Expenses and Firms Performance

It is essential to comprehend the interplay between Sales, General and Administrative (SG&A) expenses, agency charges, and company performance in organisations. SG&A expenses pertain to the operational expenditures associated with sales, marketing, and administrative functions. On the other hand, agency costs arise from conflicts of interest between principals and agents, which can adversely impact the performance of the company. Through a comprehensive analysis of existing literature, it shows valuable knowledge about the interaction between these components and their influence on the results achieved by an organisation. (Chen & Wang, 2023).

Firms Performance

The performance of many companies particularly construction and real estate enterprises is closely tied to agency expenses, which result from conflicts of interest between stakeholders and management. Hoang et al. (2019) investigates the influence of agency expenses on the performance of firms, specifically focussing on Vietnamese companies. The results indicate that the concentration of ownership and the presence of external managers in the company can have an impact on both the costs associated with agency problems and the performance of the organisation. This emphasises the significance of ownership structures in reducing conflicts of interest and improving overall performance. In addition, Safira's (2024) study highlights the impact of agency costs, intellectual capital, managerial ownership, and institutional ownership on business value. It also considers financial performance as a moderating factor. This study highlights the significance of effectively controlling agency costs in order to improve financial performance and organisational value.

Theoretical Framework

There are several theories considered to be relevant to this study such as agency theory, stewardship theory, resource dependence theory, stakeholders' theory and signalling theory, however, the theories underpinning agency costs and which are considered appropriate for this study are: agency theory, and stewardship theory.

Empirical Review

Natalia & Kusumastuti (2017) investigated the influence of several parameters, such as Insider Ownership, Institutional Ownership, Ownership Dispersion, Debt to Total Assets, Collateralizable Assets, and Free Cash

Flow, on the Dividend Payout Ratio, which acts as an indicator of agency costs. These independent variables serve as proxies for agency costs. The research employed panel data from 90 non-financial companies spanning the years 2009 to 2011. The results demonstrate that all independent variables have a significant impact on the Dividend Payout Ratio. Institutional Ownership and Collateralizable Assets exert a positive and substantial influence, while Insider Ownership, Debt to Total Assets, and Dispersion of Ownership demonstrate a negative and significant effect. Moreover, Free Cash Flow does not exert a substantial beneficial influence on the Dividend Payout Ratio.

Anazonwu et al. (2018) investigated the influence of dividend distributions on agency costs and reported inconclusive findings. The research sought to examine the impact of agency charges on the dividend distribution of publicly traded industrial companies in Nigeria. The study utilized a panel research design, concentrating on manufacturing firms within Nigeria's conglomerate and consumer products sectors. Data were extracted from the annual financial statements of chosen organizations, and the hypotheses were evaluated using pooled Ordinary Least Squares (OLS) regression. The dependent variable was dividend payment, while the assets-to-sales ratio, leverage, and free cash flow served as proxies for agency costs. Firm size and profitability, quantified by return on assets (ROA) and return on equity (ROE), were used as control variables. The results indicated that the assets-to-sales ratio and free cash flow positively and significantly influenced dividend distribution, while leverage exerted a considerable negative effect.

Huthaifa and Ashraf (2018) investigated the function of corporate governance in alleviating agency expenses across Jordanian industrial public shareholding businesses listed on the Amman Stock Exchange. The research encompassed all industrial enterprises with accessible data from 2014 to 2016, yielding a sample of 46 organizations. The generalized estimating equations (GEE) model was utilized to evaluate the correlation between corporate governance and agency expenses. The results demonstrated a statistically significant relationship between profit retention and agency costs, as shown by the operating expenses ratio, independent of control variables. Moreover, the inclusion of control variables revealed a statistically significant positive correlation between Return on Assets (ROA) and agency expenses, as indicated by the asset turnover ratio.

Nuhu et al. (2020) examined the impact of agency charges on the financial performance of publicly traded consumer products firms in Nigeria. The research utilized documentary data from the annual reports of Nigerian consumer goods companies from 2007 to 2016, employing a panel data regression methodology. The findings indicated a negative association between agency expenditures and financial performance, suggesting that mismanaged agency spending can result in reduced financial consequences. The report advised consumer goods companies to adopt rigorous corporate policies to mitigate excessive managerial control over free cash flow. It recommended that enterprises comply with the free cash flow concept by either disbursing surplus income as dividends or undertaking financial commitments that necessitate regular interest payments. The study underscored the necessity of a comprehensive evaluation prior to executing financial measures.

Rohim et al. (2024) examined the influence of agency charges on corporate performance in firms listed on the Kompas100 index of the Indonesian Stock Exchange from 2016 to 2021. The study employed a purposive sample strategy to analyze 46 firms, encompassing 248 observations. The findings indicated a substantial adverse effect of agency costs on firm performance, illustrating that organizations with elevated agency costs generally suffer a deterioration in performance. The study advocated for the establishment of robust internal controls, transparent financial reporting systems, and efficient corporate governance techniques to alleviate the detrimental impacts of agency costs.

Otto (2024) examined the correlation between corporate governance and financial performance. The study also examined the influence of agency expenses on the relationship between corporate governance and financial success. The review is of significant importance for corporate management, policy-making entities, and financial literature. Corporate management can leverage the study's findings and recommendations to establish effective governance frameworks that enhance their firms' financial performance. The study is grounded in agency theory, which delineates how management, as agents, must execute their fiduciary responsibilities to prioritize the principal's best interests and enhance the firm's primary objective. The hypothesis posits that strong corporate governance structures lead to better monitoring, hence increasing management efficiency. The research was informed by stakeholder theory, institutional theory, and resource dependence theory. The

expected relationship between the study variables is ambiguous, as corporate governance is supposed to improve oversight, leading to a positive effect on financial performance. Nonetheless, it is also linked to agency costs, which may adversely affect financial performance. Empirical studies analyzed predominantly demonstrate that corporate governance positively influences financial performance.

Gap from Literature Review

It is evident from the above empirical reviews that there are previous studies both local and foreign on agency costs and firms' performance, The relationship between agency costs and firm performance has been extensively studied in various sectors and regions globally. However, there is a notable gap in the literature concerning the specific impact of agency costs on the performance of listed construction and real estate companies in Nigeria. This gap presents an opportunity to explore how agency costs affect firm performance in a critical and growing sector of the Nigerian economy particularly among listed construction and real estate companies.

METHODOLOGY

This study employed correlation research design to investigate the effect of agency cost characteristics (free cash flow, Assets utilization and sales, general and administrative expenses) on performance of listed construction and real estate firms in Nigeria. The Eight (8) construction and real estate companies listed on the Nigeria Exchange Group as at June 2024 constitutes the population for this study. Using purposive sampling technique also known as deliberate or judgmental sampling, all eight (8) companies were chosen as the sample size. However, based on non-availability of complete data from three (3) of the companies, only five (5) were used in the study. The analysis utilized panel secondary data obtained from the annual reports and accounts of the selected CRE companies for the accounting years 2014-2023. This study employs panel secondary data because of its cross-sectional and time series characteristics.

Model Specification

This study employs a multiple regression model to examine the relationship between Return on Assets (ROA) and key financial variables, specifically Free Cash Flow (FCF), Asset Utilization Ratio (AUR), and SG&A to Net Sales Ratio (SG&A). The model is adapted from Rohim et al.

(2024) and incorporates control variables to enhance estimation accuracy.

The initial model is specified as follows:

$$ROA_{it} = \beta_0 + \beta_1 AUR_{it} + \beta_2 SGA_{it} + \sum Control\ Variables + e_{it}$$

(1) where:

ROA_{it} = Return on Assets for company i in year t,

β_0 = Constant term (intercept),

AUR_{it} = Asset Utilization Ratio for company i in year t,

SGA_{it} = SG&A to Net Sales Ratio for company i in year t,

$\sum Control\ Variables$ = Firm size, firm age, leverage, liquidity, dividend payout, e_{it} = Error term.

To refine the model, Free Cash Flow (FCF) is introduced as an additional independent variable. The modified regression equation is:

$$ROA_{it} = \beta_0 + \beta_1 FCF_{it} + \beta_2 AUR_{it} + \beta_3 SGA_{it} + \sum Control\ Variables + \varepsilon_{it}$$

(2) where:

ROA_{it} = Return on Assets for company i in year t,

β_0 = Constant term,

FCF_{it} = Free Cash Flow for company i in year t,

AUR_{it} = Asset Utilization Ratio for company i in year t,

SGA_{it} = SG&A to Net Sales Ratio for company i in year t,

$\sum Control\ Variables$ = Firm size, firm age, and dividend payout,

β_1, β_2, β_3 = Regression coefficients representing the impact of independent variables, ε_{it} = Error term.

Table 3.1 Measurement of Variables

Variables	**Definition**	**Measurement**	**Sources**		**Apriori/Predicted Effect**
Dependent Variable					
ROA	Return on Assets	Net income / Total Assets	Ahmed et (2023)	al.,	
			Rohim et (2024)	al.,	
Independent Variable					
FCF	Free Cash Flow	Profit After Tax +De	Natalia & Kusumastuti, (2017)		+ve
AUR	Assets Utilization Ratio	Revenue /Total Assets	Puwanenthiren et al., (2020), Rohim et al., (2024)		+ve
SG&A	Sales, General & Administr ative Expenses Ratio	Revenue, General and Administrative expenses / Revenue	Hoang et al., (2019), Rohim et al., (2024)		+ve/-ve
Control Variables					
SIZE	Firm Size	Log Total Assets	Zakaria et al., (2022), Rohim et al., (2024)		
AGE	Firm Age	The number of years since the firm's establishment	Sabila et al., 2023		
DIV	Dividend Payout	1 if the firm paid the dividend, 0 otherwise	Suherman et al., 2023		

Source: Researcher's Review 2024

The research utilized descriptive statistics to illustrate the attributes of the variables. The Pearson product-moment correlation was employed to assess the relationship between each pair of variables (dependent and independent). Pooled ordinary least squares (POLS) regression analysis was employed to examine the association between agency costs and firm performance. This study conducted diagnostic tests for Normality, Multicollinearity, and Heteroskedasticity to assure result reliability. The objective is to protect against inauthenticity, as noted by Gujarati and Porter (2009).

RESULTS

Descriptive Statistics

The characteristics and explanations of the dependent, independent, and control variables are compiled in Table 4.1. This includes the minimum, maximum, mean, and standard deviation values for each variable.

Table 4.1: Summary of Descriptive Statistics

Variables	Mean	Std. Dev.	Maximum	Minimum	Skewness	Kurtosis
ROA	12.2502	7.828761	39.31	3.15	1.232526	4.550002
FCF	24.472	7.996313	47.21	12.66	0.6268917	3.313489
AUR	12.5278	11.16989	48.26	0.81	1.548665	4.789585
SGA	15.262	8.980939	39.31	3.15	0.8219948	3.160178
FMZ	10.2664	0.8287235	11.7	9.03	0.0090012	1.572917
FAG	38.5	21.03083	66	2	-0.457038	1.653034
DVP	0.84	0.370328	1	0	-1.854852	4.440476

Source: The output produced by using the STATA 13 software.

Note: ROA =return on assets; FCF =free cash flow; AUR =assets utilization ratio; SGA =sales, general and administrative expenses, FMZ =firm size, FAG =firm age, DVP =dividend payout

The mean ROA of 12.25% suggests that firms, on average, have a moderate return on their assets. The standard deviation of 7.83 indicates moderate variability in ROA across firms, reflecting differences in profitability. The maximum value of 39.31% and minimum of 3.15% highlight a wide range in firm performance. The positive skewness of 1.23 indicates that the distribution of ROA is skewed to the right, with a tail towards higher values, suggesting a few firms have exceptionally high ROA. The kurtosis of 4.55, being greater than 3, suggests a leptokurtic distribution, meaning the data has heavier tails and a sharper peak than a normal distribution. This implies that while most firms have ROA around the average, there are a few extreme values that significantly deviate.

The mean FCF is 24.47, indicating a generally positive cash flow position for the firms. The standard deviation of 8.00 shows moderate variability in free cash flow levels among firms. The maximum value of 47.21 and minimum of 12.66 suggest that while some firms generate very high free cash flow, others have relatively lower but still positive levels. The skewness of 0.63 suggests a slight right skew in the distribution, indicating a mild tendency for higher free cash flow values. The kurtosis of 3.31 is close to 3, suggesting a mesokurtic distribution similar to a normal distribution with moderate tails and peak.

The mean AUR of 12.53 indicates that, on average, firms are moderately efficient in utilizing their assets. The high standard deviation of 11.17 reflects significant variability among firms in terms of asset utilization efficiency. The maximum value of 48.26 and minimum of 0.81 reveal a wide range of efficiency levels. The skewness of 1.55 shows a moderate right skew, indicating that while most firms are near the average, some

firms achieve much higher efficiency. The kurtosis of 4.79 indicates a leptokurtic distribution, suggesting that the data has heavier tails and a higher peak compared to a normal distribution, implying some firms have extreme AUR values.

The mean SGA is 15.26, indicating an average expenditure level for selling, general, and administrative functions. The standard deviation of 8.98 indicates moderate variability in SGA expenses across firms. The maximum value of 39.31 and minimum of 3.15 show that firms differ significantly in their expenditure levels. The skewness of 0.82 suggests a slight positive skew, with more firms having SGA expenses clustered around the mean and a few with higher expenses. The kurtosis of 3.16 is close to 3, indicating a mesokurtic distribution, which means the SGA expenses follow a pattern close to a normal distribution.

The mean firm size is 10.27, indicating that, on average, firms in the dataset have a size measure close to this value. The standard deviation of 0.83 is quite low, which suggests that most firms have a size close to the average, with limited variability. The maximum value of 11.7 and the minimum of 9.03 indicate that the range of firm sizes is relatively narrow. This shows that there are no extreme values in terms of firm size. The skewness of 0.01 is close to zero, indicating a nearly symmetric distribution around the mean. The kurtosis of 1.57 is less than 3, suggesting a platykurtic distribution, meaning that the data has lighter tails and a flatter peak compared to a normal distribution. This further confirms that there are fewer extreme values or outliers in firm size.

Correlation Matrix

Table 4.3: Variables' Correlation Matrix

	ROA	**FCF**	**AUR**	**SGA**	**FMZ**	**FAG**	**DVP**
ROA	1						
FCF	0.0292	1					
AUR	0.2685	0.4019	1				
SGA	0.3800	-0.1479	-0.0222	1			
FMZ	0.4721	-0.4811	-0.1911	0.2916	1		
FAG	0.1544	0.2019	-0.2970	-0.2781	0.0067	1	
DVP	0.1114	-0.0497	-0.2658	0.0651	0.0559	0.0839	1

Source: The output produced by using the STATA 13 software.

Note: ROA =return on assets; FCF =free cash flow; AUR =assets utilization ratio; SGA =sales, general and administrative expenses, FMZ =firm size, FAG =firm age, DVP =dividend payout

The correlation matrix results show that, with a coefficient of 0.4019, the relationship between free cash flow and assets utilization ratio is the highest. According to Judge, Griffiths, Hill, Luthepohl, and Lee (1985), it is not appropriate to consider the correlation between the independent variables as dangerous until it exceeds 0.80 or 0.90.

Multicollinearity Test

The Variance Inflation Factor (VIF) and Tolerance values provide insights into the potential multicollinearity among the independent variables in a regression model. Multicollinearity occurs when independent variables are highly correlated with each other, which can inflate the variance of the regression coefficients and make them unstable.

Table 4.3: Results of Multicollinearity Test

Variables	VIF	Tolerance
FCF	1.78	0.560687
AUR	1.57	0.638080
FMZ	1.46	0.684859
FAG	1.43	0.699456
SGA	1.22	0.822033
DVP	1.09	0.920219
Mean VIF	1.42	

Source: The output produced by using the STATA 13 software.

The VIF values for all variables are below 2, indicating that multicollinearity is not a concern for this dataset. None of the variables exhibit VIF values close to the threshold of 5 or above, which is commonly used to indicate high multicollinearity. Tolerance values for all variables are above 0.5, further confirming that there is no significant multicollinearity. Values close to 1 suggest minimal collinearity, which is ideal for regression analysis. The mean VIF of 1.42 reinforces that multicollinearity is not problematic in this model, allowing for reliable estimation of regression coefficients and valid statistical inferences. The analysis indicates that the independent variables in this model are not highly correlated with each other, ensuring stable and interpretable regression results.

Table 4.4: Breusch-Pagan / Cook-Weisbergtest for Heteroskedasticity

Test	**Chi-square**	**Prob>chi2**
Breusch-Pagan / Cook-Weisberg	0.05	0.7432

Source**:** The output produced by using the STATA 13 software

Summary of Regression Results

To accomplish the study's objectives, pooled ordinary least squares was utilised and the results were presented in the table 4.5

Table 4.5. Results of Multiple Regression Analysis

Model Summary No. of Observation		50	
F-statistic		6.53	
Prob. > F		0.0001	
R-square		0.4766	
Adj. R-squared		0.4036	
Variables	**Coefficient**	**t-statistic**	**Sig.**
FCF	0.4492325	3.11	0.003

AUR	0.2325817	2.40	0.021
SGA	0.2562667	2.42	0.020
FMZ	5.137322	4.08	0.000
FAG	0.0155837	0.32	0.753
DVP	-0.1494658	-0.06	0.951
(Constant)	-52.95704	-3.73	0.001

Source: Output generated using STATA 13 Software.

Note: FCF =free cash flow; AUR =assets utilization ratio; SGA =sales, general and administrative expenses, FMZ =firm size, FAG =firm age, DVP =dividend payout

The outcomes of a multiple regression analysis are shown in Table 4.5. The coefficient of determination (R^2) for the pooled ordinary least squares analysis conducted in Table 4.5 is 0.4766, indicating that approximately 47.66% of the variance in the dependent variable can be explained by the independent variables. The adjusted coefficient of determination (Adjusted R^2) is 0.4036, suggesting that about 40.36% of the variance in the dependent variable can be explained by the independent variables, after accounting for the number of predictors and the sample size. According to the data shown in Table 4.5, the F value is 6.53, whereas the probability value is 0.0001. The outcomes of the investigation suggest the presence of the Goodness Model of Fit, as shown by an F-value over 4.000, but with a probability lower than 0.050.

DISCUSSION

Free Cash Flow and Performance

According to pooled ordinary least squares analysis' results in Table 4.5, the free cash flow has a positive coefficient value of 0.4492325 and a p-value of 0.003, which is lower than the 5% significance level. This shows that there is positive significant relationship between free cash flow and return on assets of listed construction and real estate companies in Nigeria. This result is in consistent with the study of Natalia & Kusumastuti, (2017) that found positive significant relationship between free cash flows and firms performance. This implies that the company has the liquidity to reinvest in profitable ventures without relying on external financing. These reinvestments often enhance operational efficiency, leading to higher ROA. Also, companies with strong FCF are better positioned to reduce debt, resulting in lower interest expenses and improved profitability, which directly enhances ROA.

Assets Utilization and Performance

The results of statistical analysis in Table 4.5 showed that the coefficient of asset utilization is 0.2325817 while significant value (p-value) is 0.021 which is lower than 5% level of significance. This means that every unit increase in asset utilization leads to 0.2325817 increase in return on assets of listed construction and real estate companies in Nigeria. This result contradicts the findings of Rohim et al., (2024) that found negative insignificant relation with asset utilization and firms performance and agrees with the study of Puwanenthiren et al. (2020). This however, showed that there is positive significant relationship between asset utilization and return on assets of listed construction and real estate companies in Nigeria. This positive significant relationship can be justified that companies that effectively utilize their assets can generate more revenue from the same level of investment, which enhances profitability. Efficient utilization leads to higher returns relative to the total assets employed, directly improving ROA.

Sales, General and Administrative Expenses and Performance

In table 4.5, the findings from pooled ordinary least squares analysis reveal that sales, general and administrative expenses have a positive coefficient of 0.2562667 with a p-value of 0.020 which below the 5%

level of significance. The positive coefficient value demonstrates a positive link between the sales, general and administrative expenses and the return on assets of listed construction and real estate companies in Nigeria. This study is in consistent with the study of Hoang et al., (2019) and disagreed with the study of Rohim et al., (2024). This implies that SG&A expenses include sales and marketing efforts, which are crucial for promoting products, entering new markets, and attracting customers. Effective spending in this area leads to increased revenue, which enhances the firm's overall performance and improves ROA. SG&A expenses that focus on advertising, customer support, and brand management help build long-term customer loyalty and brand recognition. This investment can create sustained revenue growth without proportionate increases in assets, driving up ROA.

CONCLUSION

Based on the results of the study, it can be concluded that free cash flow has a positive significant relationship with return on assets of listed construction and real estate companies in Nigeria. This indicates that the organisation has the cash to reinvest in lucrative opportunities without depending on external funding. Such reinvestments often improve operational efficiency, resulting in increased ROA. Furthermore, firms with robust free cash flow are more capable of diminishing debt, leading to reduced interest expenditures and enhanced profitability, which immediately improves return on assets.

The study concludes that there is a positive significant relationship between assets utilization ratio and return on assets of listed construction and real estate companies in Nigeria. This positive and significant relationship can be substantiated by the fact that companies that effectively utilise their assets can generate more revenue from the same level of investment, which in turn increases profitability. An increase in returns relative to the total assets employed is a direct result of efficient utilisation, which in turn enhances ROA.

The study also concludes that return on assets of listed construction and real estate companies in Nigeria is positively influenced by sales, general and administrative expenses. This suggests that sales and marketing efforts are important for the promotion of products, the entry of new markets, and the attraction of consumers, and are included in SG&A expenses. The firm's overall performance and ROA are improved as a result of the increased revenue that is generated by effective expenditure in this area. Long-term consumer loyalty and brand recognition are fostered by SG&A expenses that concentrate on advertising, customer support, and brand management. This investment has the potential to generate consistent revenue growth without requiring a proportional increase in assets, thereby increasing the return on assets.

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