



Agency Cost and Financial Performance of Listed Firms in Nigeria

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Abstract: The overall financial performance of a corporate entity, has continually been affected by costs that is expended towards ensuring corporate alignment between the managers and owners of the firm. Knowing that these agency costs would aid the corporate attainment of shareholder maximization. This study examines into the impact of agency cost on financial performance of listed firms in Nigeria. The study conceptualized and empirical examined the impact of asset utilization (monitoring cost), audit fee (contracting cost) and operating ratio (bonding cost) on the return on equity (book-based measure) and earning per share (market based measure). The secondary data was sourced from audited financial statement of ten industrial companies and ten cosumer goods companies listed on the Nigeria stock exchange group from the period of 2019 to 2023. The findings from the GMM (Generalized Method of Moment) revealed for the objective one that asset utilization, Audit fee and operating expenses ratio has positive significant effect on return on equity. Objective two revealed that asset utilization, Audit fee has positive significant effect on earnings per share. It is therefore concluded that firms should prioritize improving asset utilization as a means of enhancing profitability.

Keywords: agency cost; financial performance; return on equity; earnings per share

1. Introduction

In the quest to achieve economies of scale and increase profitability, corporate entities often transition from sole proprietorships to partnerships, private limited liability companies, and eventually, public limited companies. This structural shift results in a separation between ownership (principals) and

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management (agents), as the owners of public companies are typically distinct from the managers (Rohim et al., 2024). This separation can give rise to the agency problem, where conflicting interests between principals and agents lead to the incurrence of agency costs (Rossi, 1986; Jensen, 1986; Sapuan et al., 2021).

Firm performance is a multifaceted concept that encompasses both financial and non-financial aspects. Financial performance refers to an organization's ability to generate monetary returns using its assets and making effective investment decisions, which results in a competitive advantage over rivals (Kyazze et al., 2020; Olagunju et al., 2021). Continuous improvements in financial performance, whether measured by book-based or market-based metrics, are essential for firms to adapt to market changes, manage costs, and sustain long-term growth (Andreau et al., 2017; Fernando et al., 2020; Ting et al., 2021).

Studies like Bint Raza et al. (2024), Ahmed et al. (2023), Baykara and Baykara (2021), Rahim et al. (2024), Ooko (2024), and Abdel-Aziz and Alrabba (2023) was unable to conceptualize agency cost from the theoretical point of view of monitoring cost, contracting cost and bonding cost, that would aid strategic and tactical level managers to understand the agency cost and its magnitudunal effect on book-based and market firm performance measure in Nigeria's manufacturing and industrial sector. The findings will provide valuable information for shareholders and managers, allowing them to identify the agency problems that most significantly affect financial performance.

The agency problem arises due to the conflicting objectives of managers and owners in corporate entities (Dawood et al., 2023; Khan et al., 2012). In corporate finance, the primary goal of managers is often profit maximization, which benefits them directly unless incentive structures, such as stock options, align their goals with wealth maximization for shareholders (Donaldson & Davis, 1991). Wealth maximization benefits all stakeholders, both directly and indirectly, but achieving this balance can generate agency costs, including monitoring, bonding, and contracting costs (Rossi et al., 2018; Belghitar & Clark, 2015).

Agency costs are essential expenses incurred to ensure that corporate performance is not compromised by conflicts of interest. Agency theory suggests a negative relationship between these costs and firm performance. While several studies (Chinelo & Iyiegbuniwe, 2018; Bint Raza et al., 2024; Nuhu et al., 2020; Olagunju et al., 2021) have explored agency costs in a broad sense, few have empirically examined specific agency costs such as monitoring, bonding, and contracting costs within the Nigerian context. Based on the above premises this study investigated the impact of various agency costs on the financial performance of selected listed firms in Nigeria.

2. Literature Review

2.1. Theoretical Review

Agency theory: The ownership role is theoretically discussed by Jensen and Meckling (1976) who demonstrated that agency cost between management and stockholders could be pretty costly in case the interests of these two parties are not aligned and this will affect stockholders' benefit, and in such a way eventually impact the company value. The result of agency problem leads to agency costs which are represented by the separation of ownership and control. They have defined agency cost as a monitoring expenditures' sum by the stockholders, bonding expenditures by the managers, contracting expenditures and the residual costs. This is expended to unify the interest of both the agency and

principal. Monitoring costs as asset utilization. One way to capture monitoring costs is through asset utilization, as it reflects the efficiency with which a firm's assets are managed. Effective monitoring ensures that assets are not misused or underutilized, leading to improved performance and profitability. Contracting costs as audit fee. Audit fees, paid for external verification of financial statements, are a practical embodiment of contracting costs. Audits provide independent assurance that financial records are accurate, reducing the potential for opportunistic behavior by managers. By verifying financial reports, audits help align managers' actions with shareholders' interests, thereby lowering agency risks. Bonding cost as operating ratio. The operating ratio (expenses as a percentage of revenue) can be viewed as a bonding measure, as it reflects managerial efficiency in controlling operational costs.

A lower operating ratio indicates that managers are effectively managing resources, which benefits shareholders by maximizing profits. Therefore, using the operating ratio as a proxy for bonding costs captures how well managers maintain cost discipline and align their efforts with organizational goals.

The econometric expression would entail the following:

$$SV_t = (\beta_0 + \beta_1 BC_t + \beta_2 MC + \beta_3 CC_t + \beta_4 RC + \varepsilon_t)$$

The model above gives an econometric expression to the position of the agency costs which implies that cost expenditure in a corporate organization is expended to ensure shareholder value (wealth maximization) is attained. SV: is the shareholder's value; BC: bonding costs (These are expenses incurred by agents (e.g., managers) to assure principals (e.g., shareholders) that their actions align with shareholders' interests, such as through insurance, guarantees, or performance-linked compensation); MC: Monitoring costs (These are expenses borne by principals to oversee and control agents' behavior, including audits, performance evaluations, reporting systems, and compliance measures aimed at reducing opportunistic managerial actions); CC: Contracting costs (Contracting costs refer to the costs of negotiating, drafting, and enforcing formal agreements between principals and agents to align interests, clarify responsibilities, and limit agency conflicts and breaches).

RC: Residual cost (Residual costs are the opportunity losses or inefficiencies that remain even after monitoring, bonding, and contracting efforts representing value lost due to unresolved conflicts between agents and principals).

2.2. Appraisal of Literature

Several studies have examined the nexus between agency costs and firm performance, providing varied empirical evidence across different economies and institutional frameworks. The study by Bint Raza et al. (2024) on firms listed on the Pakistan Stock Exchange found that certain corporate governance variables positively influence financial performance, while managerial ownership exhibited a negative impact. Asset utilization, reflecting monitoring costs, was found to significantly enhance performance. However, the use of multiple regression rather than panel regression might have limited the robustness of the findings. In a related study, Rohim et al. (2024), using Indonesian firms, found that agency costs particularly from monitoring expenses like administrative and sales costs negatively impact firm performance. This aligns with classical agency theory, asserting that excessive agency costs erode shareholder value. Supporting this, Ooko (2024) confirmed that agency costs significantly mediate the relationship between ownership structure and corporate risk in Kenyan firms, further strengthening the role of governance mechanisms in mitigating agency conflicts. From a

financial policy angle, Hameed et al. (2024) observed that free cash flow and dividend payouts significantly improve firm performance in Pakistani firms, while leverage (a proxy for debt-related agency costs) negatively affects performance. Similarly, Abdel-Aziz and Alrabba (2023) emphasized the role of corporate governance in reducing agency costs, revealing that asset turnover (monitoring efficiency) is positively associated with governance quality, while sales and administrative expenses correlate positively with agency costs. Ahmed et al. (2023) analyzed how agency costs moderate the relationship between capital structure and firm performance. Their findings suggest that while asset utilization positively affects some performance metrics like ROA, it negatively influences others, indicating a nuanced interaction between agency cost and capital mix.

Focusing on board diversity, Ain et al. (2021) discovered that female representation on boards significantly reduces agency costs in Chinese firms, suggesting that gender-diverse boards may impose stricter controls and align interests more effectively. In contrast, Simanjuntak and Sinaga (2021) examined audit fees as a proxy for agency costs and found that board structure and capital composition significantly influence these costs. In the Nigerian context, Olagunju et al. (2021) and Nuhu et al. (2020) revealed that administrative expenses (monitoring costs) negatively affect firm performance, while indicators like current ratio and bonding costs (interest expenses) can have a dual effect—either mitigating or escalating agency problems. However, these studies also suggest a need to incorporate more comprehensive measures of agency costs beyond singular financial ratios.

Expanding this view, Sapuan et al. (2021) examined Malaysian firms and reported a positive relationship between free cash flow and firm performance, yet noted that agency cost measures—primarily monitoring costs were insufficient to reflect the full spectrum of agency expenses such as contracting and bonding costs. In Vietnam, Tuan et al. (2019) affirmed the role of debt (bonding cost) in curbing agency problems, showing that interest payments align managerial actions with shareholder interests. This supports earlier claims that financial discipline via leverage can enhance firm value if not excessive. Chinelo and Iyiegbuniwe (2018) developed an agency cost index to evaluate the impact of governance structures on agency costs in Nigerian firms, finding significant correlations. However, this composite index may obscure the distinct influence of specific agency cost components such as residual and contracting costs. Lastly, Jabbary et al. (2013), in an Iranian study, demonstrated a significant link between agency costs and firm performance but lacked a strong theoretical foundation, limiting interpretative depth.

3. Methodology

This study is anchored on the theoretical framework of the agency theory. The result of agency problem leads to agency costs which are represented by the separation of ownership and control. Studies have defined agency cost as a monitoring expenditures' sum by the stockholders, bonding expenditures by the managers, contracting expenditures and the residual costs. This is expended to unify the interest of both the agents and principal. The mathematical expression would entail the following:

$$SV_t = f(BC_t, MC_t, CC_t, RC_t)$$

The model above gives a mathematical and theoretical expression to the position of the agency costs which implies that cost expenditure in a corporate organization is expended to ensure shareholder value (wealth maximization is attained. SV: is the shareholder's value, BC: bonding costs, MC:

Monitoring costs, CC: Contracting costs; RC: Residual cost. This research work utilizes a descriptive research design, relying on secondary data that was obtained from the annual audited financial statement of the selected companies in Nigeria. The purposive sampling technique was employed in selecting 20 firms, which implies 10 firms from the consumer goods sector and 10 firms from the industrial goods sector. This two sector was selected due to the high percentage contribution to the overall gross domestic product of the country and availability of data. This companies was selected from the total of 172 firms listed on the Nigeria Exchange Group. The secondary data was employed from the period of 2019 to 2023. The dependent variables for this inquiry includes the return on equity and earnings per share, this would address the book-based measurement and market based measurement. Return on equity measures a firms ability to generate profits from shareholder's equity, indicating how efficiently managemet uses investors fund while earnings per share reflects the portion of a company's profit allocated to each outstanding share, directly linking company performance to individual shareholder returns. Return on equity captures internal efficiency and earnings per share captures market efficiency.

The explanatory variables includes asset utilization (monitoring costs), Audit fee (contracting costs), and operating expenses ratio (bonding cost) and to make the work robust control variables of leverage and firm size would be included in the model and estimation. This model was adopted and adjusted to suit this present study from the works of Bint Raza et al. (2024), and Baykara and Baykara (2021). The dynamic panel regression model was employed from the works of Arellano and Bond (1991).

Model One

$$ROE_{it} = (\gamma_0 + \beta_1 ROE_{i(t-1)} + \beta_2 AUT_{it} + \beta_3 AUF_{it} + \beta_4 OPE_{it} + \mu_i + \varepsilon_{it})$$

Model Two

$$EPS_{it} = (\gamma_0 + \beta_1 EPS_{i(t-1)} + \beta_2 AUT_{it} + \beta_3 AUF_{it} + \beta_4 OPE_{it} + \mu_i + \varepsilon_{it})$$

Where: ROE= Return on Equity; EPS= Earnings per share; AUT= Asset Utilization; AUF= Audit Fee; OPE= Operating expenses ratio. $i=N$ (firm is 20), t is 2019.....2023, i = number of individuals or cross section; t = number of periods; ε_t = white noise, γ_0 is the constant value, β_2 is the coefficient estimation of the explanatory variables, ε_{it} is error variance between the entities in the model, μ_i is the firm specific effect and $Y_{i(t-1)}$ is the lagged dependent variables indicating the persistent coefficient of the model.

Dependent Variables	Measurement	
Return on Equity (ROE)	Net Income divided by Shareholder's Equity	Verawati et al., 2023
Earnings Per share (EPS)	Net Income minus Preferred Dividend divided by Weighted average number of common share outstanding	Dzahabiyya et al., 2020
Independent Variables		
Asset Utilization (AUT)	Net Sales divided by Total Asset	Puwanenthiren et al., 2020
Audit Fee (AUF)	Natural Log of total audit fee	
Operating Expenses Ratio (OPE)	Operating Expenses/Net Sales	Sapuan, Abdul Wahab, Fauzi & Omonov (2021)
Control Variables		
Leverage (LEV)	Total Debt/Total Asset	Mardiyati & Siregar, 2022

Firm Size (FS)	Log of total asset	Zakaria et al., 2022
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Author's Compilation, 2024

4. Results and Discussions

4.1. Descriptive Analysis

	ROE	EPS	AUF	AUT	OPE	LEV	FS
Mean	5.450896	8.020583	7.588431	0.612046	0.367983	0.558995	10.87946
Median	0.133741	1.730000	7.567078	0.571371	0.251051	0.560121	11.02223
Maximum	124.9246	123.0400	9.103119	1.707917	1.586630	1.134133	12.59536
Minimum	-3.723444	-6.070000	6.477121	0.069034	0.000308	0.252837	9.287485
Std. Dev.	23.94091	19.34239	0.513457	0.407438	0.343567	0.186590	0.820528
Skewness	4.375807	3.921724	0.319413	0.588892	1.503168	0.680498	-0.165925
Kurtosis	20.75671	19.81652	3.663718	2.436293	5.110097	3.429395	2.057028
Jarque-Bera	1632.881	1434.647	3.535920	7.103925	56.21068	8.486211	4.163833
Probability	0.000000	0.000000	0.170681	0.028668	0.000000	0.014363	0.124691
Sum	545.0896	802.0583	758.8431	61.20463	36.79829	55.89952	1087.946
Sum Sq. Dev.	56743.54	37038.67	26.10017	16.43453	11.68580	3.446760	66.65333
Observations	100	100	100	100	100	100	100

Author's Compilation, 2024

The measure of central tendency revealed that ROE has a mean of 5.45, suggesting an overall positive return, but the median value is much lower at 0.13, indicating that most firms have a lower ROE, while a few outliers increase the mean. EPS has a mean of 8.02, with a median of 1.73, showing a large skew in the data, where a few firms report very high EPS. AUF and AUT are closely aligned in terms of mean and median, indicating stable asset utilization and turnover. OPE has a mean of 0.37, indicating that firms, on average, have moderate operating efficiency. Leverage (LEV) shows a moderate mean value (0.56), meaning firms use some degree of debt financing. Firm size (FS) has a mean of 10.88, suggesting the sample consists of moderately large firms.

The measure dispersion reveals that ROE and EPS exhibit high standard deviations (23.94 and 19.34, respectively), reflecting significant variability among firms in profitability and earnings. AUF and AUT have relatively low standard deviations, implying consistency in asset utilization and turnover across firms. OPE, LEV, and FS also show moderate variability, with FS having the smallest dispersion (0.82), indicating that firm sizes are fairly consistent across the sample.

The skewness and kurtosis reveals that ROE and EPS are highly skewed (4.38 and 3.92, respectively), suggesting that a few firms have much higher values than the rest of the sample. Both variables also exhibit high kurtosis values (20.76 and 19.82), indicating that extreme outliers are present. AUF and AUT are relatively less skewed and have lower kurtosis, suggesting a more normal distribution. OPE shows a positive skewness and a high kurtosis, indicating a significant number of firms with very low operating efficiency. LEV and FS are moderately skewed and have kurtosis closer to normal levels.

The measure of normality reveals that ROE and EPS have extremely high Jarque-Bera values, with probabilities close to zero, indicating strong deviations from normality. AUF shows a Jarque-Bera value of 3.53 and a probability of 0.17, suggesting that it may be normally distributed. AUT, OPE, and LEV exhibit non-normal distributions with p-values less than 0.05, while FS is closer to normality with a probability of 0.12.

4.2. Correlation Matrix

	ROE	EPS	AUF	AUT	OPE	LEV	FS
ROE	1						
EPS	-0.0449	1					
AUF	0.2455	0.1170	1				
AUT	0.4311	0.2591	0.0807	1			
OPE	-0.2244	-0.2475	-0.4448	-0.5594	1		
LEV	0.0520	0.3770	0.2164	0.3347	-0.1905	1	
FS	0.2000	0.2824	0.8779	0.1151	-0.5137	0.3695	1

Author's Compilation, 2024

The table above reveals that ROE has a weak negative correlation with EPS (-0.0449), suggesting that higher profitability per equity is not strongly related to higher earnings per share. ROE is positively correlated with AUF (0.2455), meaning better asset utilization is linked to higher returns. ROE has a moderate positive correlation with AUT (0.4311), implying that efficient turnover of assets contributes to higher equity returns. ROE's correlation with OPE is negative (-0.2244), indicating that higher operating efficiency might slightly reduce equity returns. LEV and FS show weak positive correlations with ROE (0.0520 and 0.2000, respectively), suggesting that leverage and firm size have minimal direct effects on ROE.

However, EPS has a positive correlation with AUF (0.1170) and AUT (0.2591), indicating that higher asset efficiency and turnover slightly enhance earnings per share. EPS's negative correlation with OPE (-0.2475) shows that better operating efficiency can reduce EPS. LEV and FS both show positive correlations with EPS (0.3770 and 0.2824, respectively), suggesting that higher leverage and larger firm size are associated with higher earnings per share.

This finding reveals that agency costs measured as asset utilization (monitoring cost), audit fee (contracting cost), and operating expenses ratio (bonding cost) have a positive and significant effect on return on equity (ROE). This result aligns with several empirical studies in the literature. For instance, studies by Bint Raza et al. (2024), and Baykara and Baykara (2021) show that effective monitoring, as reflected in asset utilization, enhances firm performance. Asset utilization captures how efficiently a company manages its assets to generate profits, and when well-monitored, it ensures managers align their actions with shareholder interests, reducing agency conflicts. From a theoretical perspective, this finding supports the agency theory, which posits that firms incur costs to monitor and control managerial actions to reduce agency problems. Efficient asset utilization reflects the monitoring mechanisms employed by shareholders to prevent the misuse of resources by managers. Moreover, the positive impact of audit fees on ROE indicates that contracting costs, in the form of external audits, help ensure the accuracy of financial reporting, reducing information asymmetry. This finding mirrors the contracting theory, where formal agreements such as audit engagements enhance accountability and reduce the likelihood of managerial opportunism.

Additionally, the role of operating expenses ratio (bonding costs) in improving ROE aligns with the bonding aspect of agency theory. When managers are bonded to the firm through compensation or operational efficiency incentives, they are more likely to act in shareholders' interests, as reflected in lower operating costs and higher returns. This reinforces the notion that agency costs, when carefully managed, can enhance financial performance, particularly in sectors such as manufacturing, where resource efficiency is paramount. This result corresponds with studies such as Olagunju et al. (2021), which also found a positive relationship between monitoring costs and financial performance in

Nigerian firms. It underscores the importance of effectively managing agency costs through asset utilization and audit engagements to boost profitability.

Table 4. Dependent Variable (Return on Equity)

Variable	Without Control			With control		
	POL	FE	Diff-1	POL	FE	Diff-1
ROE_{1(t-1)}	0.8311 (0.0000)*	0.7167 (0.0000)*	0.7484 (0.0000)*	0.8226 (0.0000)*	0.6998 (0.0000)*	0.6777 (0.0000)*
AUT	4.136 (0.1864)	15.4713 (0.0031)*	77.6631 (0.0000)*	5.4458 (0.1134)	15.8852 (0.0026)*	79.226 (0.0000)*
AUF	1.4206 (0.4831)	-0.2555 (0.9678)	22.6333 (0.0536)***	1.0500 (0.7684)	8.3415 (0.3937)	58.1552 (0.7684)
OPE	3.0688 (0.4129)	2.3266 (0.6631)	12.8547 (0.0903)***	3.1591 (0.4305)	2.9417 (0.5849)	3.1591 (0.4305)
LEV				-5.9252 (0.3069)	-5.1805 (0.5325)	-5.9252 (0.3069)
FS				0.6750 (0.7876)	-6.1066 (0.5043)	0.6750 (0.7876)
Prob(j-stat)	0.4556			0.3714		
AR (-1)	0.3746			0.7764		
AR(-2)	0.0156			0.0101		

Significant 1%*, 5%**; 10%***

Author's Compilation, 2024

The table 4 captures the Dynamic Panel regression without the control variable and with the control variable (robustness and sensitivity analysis). The econometric technique aid to address the problem of endogeneity issues present in the usage of static panel regression analysis. It means part of the explanatory variable are correlated with the error term, which results in biased parameters (Arrelano & Bond, 1991). The usage of instrumental variable that are uncorrelated with the error-term given an unbiased parameter.

The without control section of the (Diff-1) reveals that the lagged dependent variable of 0.74 coefficient is above the (lower bound) fixed effect model lagged dependent variable of 0.71. It therefore indicates that the model is correctly instrumented and the regressors could explain the outcome variable effectively in the long-run. It also indicates an accurate level of persistence at 5% level of significance. The Hansen-Sargan Test captured by the J-statistic shows probability value of 0.45 which is within the boundary of (0.25 < p.value < 1.0). It shows that all over-identifying restrictions and valid.

The explanatory variable revealed that asset utilization (monitoring cost) has positive significant effect on return on equity. It also depicts that a unit increase in asset utilization (monitoring cost) lead to 77.66 percent increase in return on asset. Audit fee (contracting cost) has positive significant effect on return on equity. It also depicts that a unit increase in audit fee (contracting cost) lead to 22.63 percent increase in return on equity. Operating expenses ratio (bonding costs) has positive significant effect on return on equity. It also depicts that a unit increase in operating expenses ratio (bonding costs) lead to 12.85 percent increase in return on equity.

However, the AR (-1) shows the presence of first order auto-correlation which cannot be neglected in the in the model due to the first differencing of the outcome variable becoming one of the lagged dependent variable, while the AR (-2) shows the absence of the second order auto-correlation in the model and estimated parameters.

Table 5. Diagnostic Test

Test	Statistics	Prob
Breusch-Pagan LM	326.5109	0.4500
Pesaran scaled LM	4.660452	0.8900
Pesaran CD	0.967569	0.3333

Author's Compilation, 2024

The diagnostic test conducted includes to validate the presenece of auto-correlation and heteroskedasticity in the parameters of the regression analysis. The Pesaran scaled LM shows a prob-value that is high that 0.05, which indicated no presence of auto-correlation. The Breusch-Pagan LM shows a prob-value that is high than 0.05, which indicated no presence of heteroskedasticity.

Table 6. Dependent Variable (Earnings per Share)

Variable	Without Control			With control		
	POL	FE	Diff-1	POL	FE	Diff-1
EPS_{t(t-1)}	0.4715 (0.0001)*	0.3695 (0.0093)*	1.0932 (0.0063)*	0.3464 (0.0060)*	0.3731 (0.0112)*	1.3213 (0.0173)*
AUT	5.1966 (0.4341)	31.6679 (0.0062)*	198.344 (0.0178)**	5.6324 (0.4148)	13.2218 (0.0712)*	187.540 (0.0100)**
AUF	0.3314 (0.9433)	21.2304 (0.3063)	155.711 (0.0233)**	14.1722 (0.0980)	9.0970 (0.7770)	342.604 (0.001)*
OPE	-5.9167 (0.5086)	2.8579 (0.8685)	3.3878 (0.8846)	0.6593 (0.9428)	2.0462 (0.9075)	-38.668 (0.1768)
LEV				13.6556 (0.3191)	6.1836 (0.8230)	-361.165 (0.0073)*
FS				11.3009 (0.0653)	9.3262 (0.7563)	61.8687 (0.1686)
Prob(j-stat)	0.3676			0.9721		
AR (-1)	0.8501			0.3866		
AR(-2)	0.0002			0.0058		

Significant 1%, 5%**; 10%*****Author's Compilation, 2024*

The table 6 captures the Dynamic Panel regression without the control variable and with the control variable (robustness and sensitivity analysis). The econometric technique aid to address the problem of endogeniety issues present in the usage of static panel regression analysis. It means part of the explanatory variable are correlated with the error term, which results in biased parameters (Arrelano & Bond, 1991). The usage of instrumental variable that are uncorrelated with the error-term given an unbiased parameter.

The without control section reveals that the lagged dependent variable of 1.09 co-efficient is above the (lower bound) fixed effect model lagged dependent variable of 0.36. It therefore indicates that the model is correctly instrumented and the regressors could explain the outcome variable effectively in the long-run. It also indicates an accurate level of persistence at 5% level of significance. The Hansen-Sargan Test captured by the J-statistic shows probability value of 0.36 which is within the boundary of (0.25 < p.value < 1.0). It shows that all over-identifying restrictions and valid.

The explanatory variable revealed that asset utilization (monitoring cost) has positive significant effect on earnings per share. It also depicts that a unit increase in asset utilization (monitoring cost) lead to 198.3 percent increase in earnings per share. Audit fee (contracting cost) has positive significant effect on earnings per share. It also depicts that a unit increase in audit fee (contracting cost) lead to 155.7 percent increase in earnings per share. Operating expenses ratio (bonding costs) has positive

insignificant effect on earnings per share. It also depicts that a unit increase in operating expenses ratio (bonding costs) lead to 3.38 percent increase in earnings per share.

However, the AR (-1) shows the presence of first order auto-correlation which cannot be neglected in the in the model due to the first differencing of the outcome variable becoming one of the lagged dependent variable, while the AR (-2) shows the absence of the second order auto-correlation in the model and estimated parameters.

The second findings highlights the significant impact of asset utilization and audit fee on earnings per share (EPS), further validating the relationship between agency costs and financial performance. This finding suggests that monitoring costs, captured through asset utilization, play a critical role in driving profitability as reflected in earnings per share. Studies such as Rohim et al. (2024) have similarly shown that efficient asset use enhances profitability metrics like EPS, supporting the notion that firms that manage their assets well experience higher returns.

The agency theory framework explains this finding by emphasizing that when shareholders invest in mechanisms to monitor asset performance, it reduces the likelihood of asset underutilization or waste, leading to higher profitability. The empirical evidence supports this theory, with Abdel-Aziz and Alrabba (2023) finding similar outcomes in firms with robust corporate governance practices that include asset monitoring. Similarly, the significant impact of audit fees on EPS underscores the importance of contracting costs in ensuring transparent financial reporting and safeguarding shareholder interests. Audits act as a safeguard against financial misreporting, providing assurance to investors that the financial statements accurately reflect the firm's performance. This aligns with the contracting theory by suggesting that external audits mitigate agency problems and enhance profitability by reducing information asymmetry between management and shareholders.

However, the relatively weaker impact of the operating expenses ratio (bonding cost) on EPS, compared to its effect on ROE, suggests that bonding mechanisms may not directly influence short-term profitability metrics like EPS as significantly as long-term measures like ROE. This insight corresponds with the work of Sapuan et al. (2021), which highlighted the complexity of agency costs in influencing different financial performance measures. Nonetheless, the positive, albeit insignificant, effect of bonding costs on EPS indicates that, over time, bonding mechanisms can contribute to aligning managerial behavior with shareholder objectives, albeit more subtly than monitoring or contracting mechanisms. This finding reinforces the idea that managing agency costs through asset utilization and contracting mechanisms plays a pivotal role in enhancing firm profitability, as evidenced by both return on equity and earnings per share.

Table 7. Diagnostic Test

Test	Statistics	Prob
Breusch-Pagan LM	329.8828	0.8900
Pesaran scaled LM	4.824989	0.4500
Pesaran CD	1.516500	0.1294

Author's Compilation, 2024

The diagnostic test conducted includes to validate the presenece of auto-correlation and heteroskedasticity in the parameters of the regression analysis. The Pesaran scaled LM shows a prob-value that is high that 0.05, which indicated no presence of auto-correlation. The Breusch-Pagan LM shows a prob-value that is high than 0.05, which indicated no presence of heteroskedasticity.

5. Conclusion and Recommendations

Based on the findings above, the study supports the agency theory's assertion that managing agency costs through monitoring, contracting, and bonding can significantly improve financial outcomes. These insights are critical for firms aiming to optimize resource allocation and improve profitability, especially in the manufacturing sector. Firms should prioritize improving asset utilization as a means of enhancing profitability. Implementing robust monitoring mechanisms to ensure the efficient use of assets can significantly increase both ROE and EPS. Additionally, companies should invest in contracting mechanisms, such as regular external audits, to ensure financial transparency and reduce information asymmetry, thereby boosting investor confidence and performance. For long-term financial success, firms should also focus on managing bonding costs by incentivizing managers through performance-based compensation schemes that align their actions with shareholder objectives. Lastly, companies should strike a balance between leveraging debt and maintaining operational efficiency to avoid excessive bonding costs, which may diminish profitability if not managed effectively. These strategies can help firms mitigate agency problems and achieve sustainable growth.

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