

# Earnings Management and Financial Performance: The Moderating Role of CEO Competency

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## Abstract

*This study examines the influence of earnings management on the financial performance of financial listed firms. It also investigates the moderating role of CEO competency on the relationship between earnings management and financial performance. The study argues that the competencies of CEOs are important to reduce the discretionary accruals of firms. Using a sample of deposit money banks in Nigeria, the study adopts the panel regression estimator to analyze the testable hypotheses of the paper. In support of the agency theory, the study finds evidence that earnings management reduces financial performance. On the contrary, the interaction of CEO competency and earnings management negatively reduce financial performance, indicating that CEOs use their competencies to entrench themselves for their personal interests more than the interests of shareholders. The magnitude of the combined CEO competency and earnings management affecting financial performance is less than the sole effect of earnings management. Thus, while we find support for the agency theory on earnings management, our study establishes little support for CEO competency to erode earnings management. Hence, we call for a broader CEO monitoring and resource mechanisms such as CEO compensation and CEO social capital to reduce the negative impact of earnings management on financial performance of financial institutions.*

*Keywords: Earnings management; CEO competency; Financial performance; Agency theory*

## 1. Introduction

Theoretical evidence by the corporate governance (CG) literature shows that earnings management (EM) (i.e. discretionary accruals) in general cannot be ignored in the presence of free cash flows when estimating accounting and market performance (see Dechow et al., 1995). The “agency theory” (Jensen, 1986) and “free cash flows hypothesis” (Brush et al., 2000; Jensen et al., 1976; Smith et al., 1979; Subramanyam, 1996) lend credence to this fact. On the one hand, the “agency theory” states that managers tend to pursue their personal interests to the detriment of returns to owners of capital. This often implies that CEOs manipulate earnings to enhance stocks price because of their compensation packages (Kumar et al., 2020). On the other hand, the rationale behind “free cash flow hypothesis” is underscored by the fact that management’s inability to use available free cash flows for profitable investments but for personal interests would engage in earnings manipulations (Chalak and Mohammadnezhad, 2012).

CG failure in Nigeria is caused by weak institutional mechanisms, misuse of shareholders' rights, directors’ low level of commitment, noncompliance with the regulatory policies and framework, poor enforcement and monitoring systems, and a general lack of stewardship

disclosure and accountability (Okpara and Iheanacho, 2014). For instance, in 2007 and 2008, corporate financial impropriety was reported in major scandals involving Cadbury Nigeria and Halliburton Nigeria, respectively. All banks' reporting standards strengthen as a result of their compliance with the code. The CBN also ensures objective and competent role allocation. To avoid investments decline, firms may need to appoint and invest in CEOs' competencies to restore confidence and reduce agency conflicts. Understanding how EM affect financial performance is not enough but how CEO competency would moderate the negative impacts of EM is crucial. Thus, the study's findings would offer valuable insights for owners of capital in the presence of high CEO competency.

Several studies have explored the moderating role of CG on EM and financial performance (Abed et al., 2012; Bouaziz et al., 2020; González and García-Meca, 2014; Hassan and Ahmad, 2012). However, most of these studies considered the monitoring functions of CEOs and Directors without considering the significant role of the resource provision functions i.e. Competencies (degree in accounting and finance, professional qualification, CEO tenure and CEO working experience) of CEOs. The existing studies that explored moderating effects of firm-level factors focused on CG mechanisms, characteristics of board of directors, and corporate social responsibility disclosure. However, CEO competency has not yet been extensively studied as a firm-level moderator on the EM-financial performance nexus. Thus, what has remained understudied in CG literature is the role of CEO competency in EM financial performance nexus and this constitutes the main contribution of the study.

Motivated by the resource provision functions of CEOs (Hillman and Dalziel, 2003), this study explores the influence of CEO competency on financial performance of financial firms. It also investigates the moderating role of CEO competency as a firm-level mechanism to reduce the influence of EM on financial performance. In order to validate the Dechow et al. (1995) in the financial sector in Nigeria, this study further tests and re-validate Jones measures of discretionary accruals on the financial performance among listed financial companies in Nigeria. Therefore, we hypothesized that first, EM has a negative influence on financial performance, second, CEO competency has a positive influence on financial performance, and third, CEO competency reduces the negative influence of EM on financial performance. To the best of our knowledge, this is one of the foremost studies to empirically moderate CEO competency (measured as an index of CEO degree, CEO professional qualification, CEO tenure, and CEO working experience) on the link between EM and performance of firms.

The contribution of this study is three-fold. First, we re-validate the Jones model of discretionary accruals on financial performance of deposit money banks in Nigeria. Although, there are other models of discretionary accruals estimation such as Beneish M-Score model, we investigate the Jones mode due to its advantage to estimate non-discretionary accruals as a function of change in revenues, depreciation, and firm's assets. Second, we significantly document that the resource provision functions of CEOs through CEOs competency affect financial performance. While a strand of literature argues that CEO competency increase financial performance (Altuwaijri and Kalyanaraman, 2020; Amedu and Dulewicz, 2018), our results contradict theirs, suggesting that CEOs use their competencies to entrench themselves more than to facilitate the reduction of conflicts between owners of capital and managers. Third, our study contributes to the ongoing works on how to reduce EM in firms. While past studies document the significance of CSR disclosure (Anderson et al., 2014; Mahrani and Soewarno, 2018), and CG mechanisms (Bouaziz et al., 2020; Ching et al., 2015; Hassan and Ahmad, 2012) to reduce EM effects, motivated by the Study of Hillman and Dalziel (2003) on resource provision functions of CEOs, we found that CEO competency reduces EM effects on

financial performance. Although it does not totally erode EM effects, the magnitude of EM effects on financial performance reduced with the role of CEO competency.

## **2. Literature Review and Hypothesis Development**

The agency theory assumes that managers engage in EM in order to achieve their incentive packages (Salah et al., 2010). An agency arrangement, according to Jensen et al. (1976), is a contract in which one or more persons (the principals) appoint another person (the agent) to conduct services on their behalf and assign some responsibilities and authoritative power to the agent. According to Brennan (2015), the agency problem usually arises if an agent fails to act in the shareholders' best interest (the principal). This can happen when managers choose to serve their interests at the company's shareholders' expense to increase their rewards or fulfil a certain earnings target or debt covenant. Because of the division of ownership and control and information asymmetry, all of this is possible (since managers have more information than the real owners of a company). Management could manipulate earnings to conceal a company's true financial condition and relevant details that investors should have known. The agency theory clarifies the possibility for managers to manage earnings; managers can create a biased financial report with no way for anyone to see through it. Because of an agent's opportunistic behaviour, the corporation put a mechanism to align the principal and agent's interest by establishing the Board of Directors (Bunamin et al., 2012). In a corporate entity, to oversee the management operation and constraint the management's opportunistic behaviour, the shareholders invest in information and monitoring system, including employing the Board of Directors, audit committee, and auditors (Hashin et al., 2008).

However, the impact of CG mechanism on EM should be placed in the agency problem which is created from ownership and control separation. The composition of individuals serving on the board, according to Fama et al. (1983), is crucial in establishing a board that is successful in controlling management action. As a result, some board of director attributes have been suggested in the literature to reduce EM's degree. Furthermore, a board with a diverse set of skills could be better able to avoid the use of EM, resulting in more accurate financial reporting for shareholders (Gallego et al., 2020). The notion that corporate boards with diverse experience can efficiently counsel, track, and discipline management, thus improving corporate efficiency, is also supported by agency theory (Ntim et al., 2011).

### **2.1 Hypotheses Development: Earnings Management and Financial Performance**

Dechow et al. (1995) claimed that performance matching can eliminate performance-motivated EM because both treatment and match control firms perform similarly. They also claim that total accruals are in reality not abnormal accruals but performance-matched discretionary accruals are (Dechow et al., 1995). Additionally, their study results show a preference for the standard Jones model compared to the Modified Jones model under the performance matching approach. They discovered that it would inadvertently find EM when using the Modified Jones model to match results based on ROA.

Much research has been empirically carried out on influence of EM on financial performance (Ching et al., 2015; Dakhlallah et al., 2020; Dechow et al., 1995; Kumar et al., 2020; Tabassum et al., 2015). Dakhlallah et al. (2020) investigated how both accrual-based EM and

real EM and firm performance among Jordanian firms. Using the panel data technique on data collected from listed Jordanian companies from 2009 to 2017, the authors find that both discretionary accruals and abnormal cash flows have significant negative impact on Tobin's Q, indicating that firms involved in discretionary accrual report less performance. Kumar et al. (2020) examined the influence of real EM on firms' future performance in 108 non-financial firms India from 2006 to 2018. The authors used the panel GMM estimator and found that Indian firms engage in EM by reducing discretionary expenditures in a way to manipulate earnings. Their findings imply that real EM activities negatively influence accounting and market performance. Hassan and Ahmad, (2012) explored the CG, EM and financial performance in Nigerian manufacturing firms. Hassan and Ahmad, (2012) found that EM negatively affect financial performance and CG mechanisms significantly impact on firm performance (adjusted and non-adjusted) in different directions and magnitudes. These results confirm the assertion by Dechow et al. (1995) that the significance of manipulating financial indicators when investigating EM stimuli that associated with financial performance. Based on this, it is hypothesized that:

*H1 - Earnings management has a negative relationship with financial performance*

### **2.1.1 CEO Competency and Financial Performance**

Competency refers to a person's ability to pass and apply expertise and skills in the workplace. According to previous studies, directors tend to need diverse skills (Yusoff et al., 2012). Board members and CEOs in Nigeria with financial degrees and expertise need to complete their duties, resulting in better firm performance. Financial degrees are undergraduate or postgraduate degrees in accounting, banking, finance, management, and business administration. Altuwaijri and Kalyanaraman (2020) investigated the extent to which CEO education influences firm performance in Saudi nonfinancial firms. The authors find that graduating CEOs from a domestic institution influences performance positively, suggesting that firms benefit from a CEO hiring policy that emphasizes on the minimum academic qualification. Amedu and Dulewicz (2018) also find the significant of CEO competencies on company performance proxied by the firm's return on assets and Tobin's Q. On the contrary, Lindorff and Jonson (2013) examined the link between CEO business educational qualification and firm performance using a 3-year and 5-year shareholder returns and found no significant association was found between CEO business qualifications (MBA) and firm's financial performance. The importance of considering the multiple aspects of a CEO's experience when determining the effect on firm performance is necessary. Two methods have been used in previous studies on the effect of CEO expertise on monitoring and advising practises. The first method examines how a director's financial knowledge affects fraud, thereby influencing financial performance (Aburime, 2013; Agrawal et al., 2005; DeFond et al., 2005). The second method examines how directors who have previously served as CEOs in other companies have an effect on the company's results (Brickley et al., 2014; Fich et al., 2005). Therefore, this study hypothesized that:

*H2 - CEO competency has a positive influence on financial performance*

## **2.1.2 Earnings Management and Financial Performance: Moderating Role of CEO Competency**

Experience as a CEO is a critical background element (Gounopoulos et al., 2018). Experienced CEOs' decision-making processes vary greatly from novice CEOs (Fredrickson, 1985). In reality, when compared to less experienced managers, CEOs with more experience make better decisions. This means that CEOs with financial expertise are less able to leverage earnings than CEOs without experience. Previous studies (Dyreng et al., 2010; Call et al., 2017) have looked at whether personal attributes including age, financial and legal experience affect the CEO's operational and reporting decisions, following the assumptions of the upper echelons theory (Hambrick et al., 1984). There is a connection between CEO expertise and EM Baatwah et al. (2015).

The field in which a manager works and the amount of education a manager has are factors that influence EM. They have an impact on how CEOs approach reporting. Several studies have been conducted to see if there is a connection between the CEO's academic credentials, specifically in accounting, and the management practises of the firm. Evidently, a CEO with an MBA can create more precise disclosure styles and is more resilient to the negative effects of making inaccurate forecasts (Bamber et al., 2010). The accounting profession is conservative, resulting in the implementation of less aggressive accounting practices. On the other hand, when coupled with executive rationalisation, business education can increase the probability of accounting fraud and earnings manipulation. The professional competence of board members, on the other hand, is important in offering guidance and consultation support to companies. According to DeZoort et al. (2011), directors who specialise in finance and accounting are more likely to make recommendations for financial statement-related issues or use supervisory powers to avoid significant financial misstatements and earnings manipulations by CEOs. According to Xie et al. (2013), companies have a high proportion of external directors with management backgrounds, EM activities are uncommon. Following this review, it is hypothesized that:

*H3 - CEO competency moderates the relationship between earnings management and financial performance.*

## **3. Research Methods**

This section presents the research techniques adopted to achieve the study's objectives. The section discusses the population of the study, sampling technique, sample size, estimation technique and measurement of the variables.

### **3.1 Variables Measurement**

The proxies for the dependent variable (financial performance), independent variable (earnings management), moderating variable (CEO competency), and control variables (firm size, cash flows, and leverage) are provided and discussed.

### **3.2 Dependent Variable – Financial Performance (Return on Assets)**

Return on assets is proxied for financial performance as used by Gulzar (2011) and Johari et al. (2008). ROA explains how efficient managers are able to use the firm's assets to generate earnings. Dechow et al., (1995) suggest that firm performance has a positive association with discretionary accruals as discretionary accruals may reflect changes in the sample firm performance. ROA has a significant positive relationship with discretionary accruals (Johari et al., 2008; Moradi et al., 2012).

### **3.3 Independent Variable – Earnings Management**

Most studies have proxied EM using discretionary accruals. Modified Jones (1995) model was used to extract the discretionary accrual, that is, the residual values obtained after regressing in the modified Jones Model. According to, Dechow et al., (1995), the original Jones model does not capture the impact of sale-based manipulation as it assumes that account receivables should not be considered as non-discretionary accruals. Thus, they modified the original Jones model to include account receivables and named it as modified Jones Model (1995). The study adopts modified Jones (1995) model because it is widely tested and accepted by many scholars and it is the best model to estimate discretionary accruals with minimal error (Kabir et al., 2011). Furthermore, both, (Gulzar, 2011) and Johari et al. (2008) used this model to estimate the extent of EM. The model is presented below:

$$\frac{TACC}{TA_{i,t}} = \hat{\alpha}_1 \left( \frac{1}{TA_{i,t-1}} \right) + \hat{\alpha}_2 \left( \frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{TA_{i,t-1}} \right) + \hat{\alpha}_3 \left( \frac{PPE_{i,t}}{TA_{i,t-1}} \right) + e_t$$

DAC = Total accruals – Non discretionary accruals.

### **3.4 Moderating Variable – CEO Competency**

This study extends the previous work of Chiu et al, (2013) to encompass CEO degree, professional qualification, tenure and working experience and then measure a composite index of CEO competency based on degree, professional qualification, tenure and working experience. This study adopted dummy measure to proxy CEO degree. CEO degree is coded as '1' if the CEO has accounting or finance related degree and '0' otherwise. The CEO tenure is equal to the number of the years that the CEO has held his or her executive position. To measure a composite index of CEO competency, the study will further use dummy variables on CEO degree, tenure and working experience (since professional qualification is dummy already) with the code of CEO degree '1' if the observation is above the sample median and '0' otherwise. The study then added all the four dummy variables (CEO degree, professional qualification, tenure and working experience) to measure CEO competency index.

### **3.4.1 Control Variable**

Three control variables are tested and included in the empirical model. Firm size, cash flow and leverage are used as control variables on the nexus between EM, CEO competency, and financial performance.

### **3.4.2 Firm Size**

Earnings management practice increases in proportion to the size of the firm because large firms face greater scrutiny from shareholders, and therefore, are more likely to manage earnings to satisfy their forecast (Osemene et al., 2018). On the contrary, small firms are subjected to less control than their large counterparts, and thus, have the tendency to engage more in discretionary accruals (Dechow et al., 1995; DeFond et al., 1994; Abed et al., 2012). Firm size is proxied as the logarithm of firm's total assets (Adeneye and Chu, 2020).

### **3.4.3 Cash Flows**

Motivated by the assumption of the free cash flow theory, a firm's cash flows can be used by managers to maximize their personal gain and interests, following an opportunistic perspective (Jensen, 1986). This implies that managers are triggered and motivated to engage in EM in the presence of free cash flows through discretionary accruals (Bukit and Iskandar, 2009; Chalak and Mohammadnezhad, 2012). Therefore, we expect a positive link between of discretionary accruals and free cash flow. We measure cash flows as the proportion of net cash flows in operating activities to total assets.

### **3.4.4 Leverage**

Leverage measures the level of a firm's financial indebtedness. Highly-leveraged firms are more likely to engage in EM practice due to available financial resources. This support the assertion of Bassiouny (2016) that financial leverage positively impacts EM practices. Fung et al., (2013) also found a positive relationship between short term debt and discretionary accruals. Thus, the study expects a positive link between leverage and EM measured by Jones model. Leverage is the proportion of total debt to total assets (Adeneye and Chu, 2020).

## **3.5 Empirical Equation**

The equation that connects the relationship between EM and financial management is presented below. The equation also presents the connection between the moderating role of CEO competency on the relationship between EM and financial performance.

$$ROA_{it} = \alpha_{it} + \beta_1 EarningsMgt_{it} + \beta_2 CEOcompetency_{it} + \beta_3 EarningsMgt \times CEOcompetency_{it} + \beta_4 Firmsize_{it} + \beta_5 Cashflows_{it} + \beta_6 Leverage_{it} + \varepsilon_{it} \dots \dots \dots \text{equation (1)}$$

### 3.5.1 Estimation Technique and Procedure

Panel regression estimator is adopted in this study. This is because the study uses a panel data (i.e. is cross-sectional and time-series data). This involves the estimation of three different models; pooled OLS, random effect (GLS) regression, and fixed effect (within) regression but the preferred model will be accepted after performing Poolability test, Breusch-Pagan LM test, and Hausman test. Stata 16 software was used to perform the analysis because it allows for carrying out certain statistical tests, like heteroscedasticity test, VIF test, Hausman test, and estimation of residuals.

This study chooses between the pooled OLS, fixed effect model, and random effect model. The procedure to select the appropriate model is presented in Table 1 below. The diagnostics tests further help to fulfil the OLS assumption and confirms the reliability of the findings of the present study. For instance, multicollinearity assumption indicates that there is no serious problem of high correlation or association between the explanatory variables. This was tested using the correlation matrix. The study deals with observations that constitute different sizes, some are in ratios while others in numbers, and that heteroscedasticity often occurs when there is a large difference among the sizes of the observations. For that, the study will estimate a robust standard error for fixed effect model if the preferred and appropriate model is fixed effect model so that the standard error is robust to heteroscedasticity issue.

**Table 1:** Estimation procedure

	Poolability Test	Breusch Pagan LM test	Hausman Test
<b>Step 1</b>	<i>Pooled OLS vs. Fixed Effect Model</i>		
<b>Step 2</b>		<i>Random Effect Model vs. Pooled OLS</i>	
<b>Step 3</b>			<i>Random Effect Model vs. Fixed Effect Model</i>
<b>Step 4</b>	<i>Diagnostics tests (Multicollinearity, serial correlation, heteroscedasticity)</i>		
<b>Step 5</b>	<i>Robust random effect model or robust fixed random effect model (in the presence of serial correlation and heteroscedasticity)</i>		

### 3.5.1 Population and sampling technique

The population of the study constitutes the financial listed firms in Nigeria. The number of conventional banks, mortgage banks, and insurance firms are 17, 22, and 28, respectively. This makes a total of 67 firms. The study adopts the purposive sampling technique to select the sample size of the study. In line with the suggestion of Sekaran and Bougie (2016) EM that the purposive technique is used when the researcher has some inclusion criteria, this study has three inclusion criteria; (1) firms must be listed on the NSE within 2010-2019 and should not have been delisted within the period, (2) firms must have been publishing the profiles of its executives or management team, (3) companies without a full 10 years of annual reports will be excluded from the selection. Following these criteria, a total of 37 firms were finally sampled.



### 3.5.2 Sample Period

This study focuses on studying the relationship between EM, CEO competency and financial performance in Nigeria for the period 2010 to 2019. The choice of the period is because, it is within that period the codes of CG for public limited liabilities companies were introduced two times by the Securities and Exchange Commission and most of the features of these codes are related to board's strengthening. In addition, due to the Covid-19 pandemic, some of the listed financial firms are yet to disclosed their final audited reports for the year 2020. So, the study limits its sample period to 2019.

### 3.5.3 Sources of Data

The secondary source of data is adopted. Data on the measured variables were sourced from the annual reports and accounts of the sampled financial firms, Nigerian stock exchange fact book for the period 2010 to 2019. The Banks which most of them are public limited ones listed on the Nigerian Stock Exchange. By virtue of being public limited companies and as a requirement of being listed, annual financial report has to be made available to the Nigerian Stock Exchange.

## 4. Results and Discussion

This section presents the results of the data analysis on the relationship between EM, CEO competency and financial performance. The descriptive statistics is shown in Table 2. The minimum EM is -7.601 while the maximum value is -0.653. The average EM is -3.054, which is slightly higher than the average -2.000 reported in most studies. This indicates that the practice of EM is quite higher in Nigerian firms. The mean ROA is 1.208 per cent. On average, only about 50 per cent of the CEOs are competent given its mean value of 2.762. The sampled firms are highly leverage given the mean leverage of 63.35 percent and maximum value of 254.75 percent. This is not surprising as the financial firms are highly leverage given the nature of the business. For instance, the interest on loans constitute the main source of income for deposit money banks. The mean cash flows are positive of 0.023, suggesting that EM can be triggered by available much cash flows. The minimum and maximum values of firm size are 6.557 and 9.854, respectively.

**Table 2:** Descriptive statistics

Variable	ROA	Earnings management	CEO Competency	Leverage	Cash flows	Firm size
Minimum	-78.323	-7.601	1	4.461	-0.225	6.557
Maximum	20.755	-0.653	4	254.750	0.269	9.854
Mean	1.208	-3.054	2.762	63.357	0.023	7.836
Median	1.893	-2.892	3	61.687	0.023	7.382
Std. Deviation	7.303	1.106	1.014	29.731	0.076	0.975
p10	-3.627	-4.374	1.5	28.682	-0.071	6.878
p25	0.434	-3.579	2	41.971	-0.023	7.054
p75	3.933	-2.299	4	85.470	0.071	8.855
p90	6.692	-1.897	4	89.726	0.112	9.331
Kurtosis	46.023	4.888	1.754	9.521	3.691	1.879
Skewness	-4.905	-1.108	-0.090	1.346	0.157	0.645

*See Appendix for variables measurement.*

The use of regression estimator requires that the researcher fulfils the assumptions of the ordinary least square regression. The results in Table 3 confirm the linearity and multicollinearity assumptions are fulfilled. The results confirm that there is a linear correlation between EM, CEO competency, leverage, cash flows, firm size, and financial performance (ROA). As expected, EM has a negative correlation with ROA while CEO competency has a positive correlation with EM. This confirms the managerial entrenchment theory that managers and CEOs use the resources of the firm for their self-interests. Leverage has a negative correlation with financial performance with a correlation coefficient of -0.1035. Firm size and cash flows have positive correlation with return on assets with correlation values of 0.0935 and 0.1144, respectively.

Regarding multicollinearity, the correlation coefficients of the explanatory variables is in the range of -0.0901 to 0.6437. This value is less than the threshold of 0.800 suggested by Gujarati (2016), indicating that there is no serious multicollinearity problem in the study. The study also performs the VIF test to further confirm no serious multicollinearity problem. The values of the VIF for the explanatory variables are between 1.01 and 1.93, which is less than the 5.00 threshold suggested by Hair et al. (2012).

**Table 3:** Correlation matrix

	ROA	Earnings management	CEO competency	Leverage	Cash flows	Firm size	VIF
ROA	1						-
Earnings management	-0.1846	1					1.03
CEO competency	-0.0901	0.0554	1				1.29
Leverage	-0.1035	0.1334	0.3570	1			1.78
Cash flows	0.1144	0.0743	0.0103	0.0550	1		1.01
Firm size	0.0935	0.0242	0.4643	0.6437	0.0334	1	1.93

See Appendix for variables measurement.

Table 4 presents the results for the relationship between EM and financial performance. By conducting the preliminary analysis of the appropriate model for the study (i.e. Fixed effect vs. Pooled Effect, Random effect vs. Pooled Effect, and Random effect vs. Fixed effect), the random effect model is appropriate to estimate the relationship between EM and financial performance. The Poolability result (4.07;  $p=0.000$ ) shows that the fixed effect is preferred over the pooled effect. However, the Hausman test (Random effect vs. Fixed effect) confirmed that the random effect is preferred over the fixed effect. Thus, the study further tests for the Breusch Pagan LM test (Random effect vs. Pooled Effect) and found evidence that the random effect model is appropriate as shown in the last column of Tables 4, 5, and 6.

In line with the agency theory and hypothesis one (1), there is a significant negative relationship between EM and financial performance (Beta = -0.859; standard error = 0.306), which is statistically significant at the 1 per cent level. This implies that an increase in the level of EM results to 0.859 per cent decrease in financial performance of financial firms (measured by return on assets). Regarding the control variables, leverage reduces the financial performance of financial firms (Beta = -0.054; standard error = 0.019), significant at the 1 per cent level. This indicates that an increase in institutional borrowings by financial institution will affect their financial performance negatively. In support of the Jones model and agency theory, managers entrenched themselves when there are free cash flows. This is in line with the results for cash flows that have a positively on financial performance of financial firms

(Beta = 8.290; standard error = 4.621) at the 10 per cent level. Firm size also increases financial performance. Large-sized banks report higher profits than small-sized banks (Al-Shatnawi et al., 2021; Al-Matari, 2021). The results show that firm size significant have positive influence on financial performance (Beta = 1.918; standard error = 0.747).

**Table 4:** Relationship between earnings management and financial performance

Dep. - ROA	Pooled effect	Fixed effect	Random effect
<i>Constant</i>	-12.991*** (0.332)	-19.152 (14.624)	-13.283** (5.550)
<b>Focus variable</b>			
<i>Earnings management</i>	-1.077*** (0.017)	-0.768** (0.313)	-0.859*** (0.306)
<b>Control variables</b>			
<i>Leverage</i>	-0.062*** (4.773)	-0.042* (0.022)	-0.054*** (0.019)
<i>Cash flows</i>	12.382*** (0.486)	7.456 (4.823)	8.290* (4.621)
<i>Firm size</i>	1.871*** (3.366)	2.626 (1.853)	1.918*** (0.747)
R Square	0.0961	0.0661	0.0928
Adjusted R Square	0.0858		
F-value	9.33***	3.20**	
Wald X2			21.00***
Multicollinearity	1.38		
Serial Correlation			3.539 (0.068)
Poolability Test	4.07*** (0.000)		
Breusch-Pagan LM Test			56.02*** (0.000)
Hausman Test		4.11 (0.391)	
Obs.	356	356	356

*Asterisks \*, \*\*, and \*\*\* are significant at the 10%, 5%, and 1% levels, respectively. See Appendix for variables measurement.*

Table 5 depicts the results for the relationship between CEO competency and financial performance (measured using the return on assets). Contrary to hypothesis II, the result shows that CEO competency has negative impact on financial performance but insignificant (Beta = -0.607; standard error = 0.622) for the random effect model. This supports the study of Lindorff and Jonson (2013) that also established that CEO competency measured by CEO level of education qualification has insignificant impact firm performance. However, using the pooled OLS, findings revealed that CEO competency has a significant negative influence on financial performance. It indicates that CEOs tailored their competencies towards their self-interest's goals than the goals of shareholders by reducing and disengaging in EM practices, which in turn reduces the financial performance of firms. Leverage has a negative impact on financial performance, which supports the past studies and in line with the agency cost theory (Chinaemerem and Anthony, 2012; Arowoshegbe and Emeni 2014), suggesting that financial institutions should substitute an appropriate proportion of debt with equity in their capital

structure. Cash flows (Beta = -0.607; standard error = 0.622) and firm size (Beta = -0.607; standard error = 0.622) have significant positive influences on financial performance of financial firms. This supports the assertion that large-sized firms and firms with high free cash flows experience higher financial performance.

R square is reported to be 11.21 per cent, implying that 11.21% variations in financial management is explained by the explanatory variables. The diagnostics tests indicate that the results are reliable. The multicollinearity test shows that there is no multicollinearity problem. This also applies to serial correlation test. There is no heteroscedasticity issue as the appropriate model is the random effect model.

This study also tests the moderating role of CEO competency on the relationship between EM and financial performance as shown in Table 6. CEO competency is significant in pooled effect model, but insignificant for fixed and random effect model. EM has a negative significant impact on financial performance at the 1% level (Beta = -0.853; standard error = 0.306). This supports the prediction of Jones (2015) that EM (proxied by discretionary accruals) reduces financial performance. The results also support the agency theory and free cash flows theory of Jensen (1986) that manager pursue their personal goals to the detriment of shareholders' goals.

**Table 5:** Relationship between CEO competency and financial performance

Variables	Pooled effect	Fixed effect	Random effect
<i>Constant</i>	-12.620*** (3.241)	-14.460 (14.655)	-11.990** (5.500)
<b>Focus variable</b>			
<i>CEO Competency</i>	-1.021** (0.405)	0.575 (0.954)	-0.607 (0.622)
<b>Control variables</b>			
<i>Leverage</i>	-0.083*** (0.016)	-0.054** (0.022)	-0.068*** (0.019)
<i>Cash flows</i>	11.882** (4.812)	7.479 (4.857)	8.453* (4.658)
<i>Firm size</i>	2.757*** (0.504)	2.213 (1.890)	2.408*** (0.792)
R Square	0.1153	0.0554	0.1121
Adjusted R Square	0.1053		
F-value	11.54***	2.66**	
Wald X2			20.36***
Multicollinearity	1.42		
Serial Correlation			1.175 (0.286)
Poolability Test	4.12*** (0.000)		
Breusch-Pagan LM Test			59.05*** (0.000)
Hausman Test		5.31 (0.257)	
Obs.	359	359	359

Asterisks \*, \*\*, and \*\*\* are significant at the 10%, 5%, and 1% levels, respectively. See Appendix for variables measurement.

The interaction effect of CEO competency and EM shows a significant coefficient of -0.585, which is lower than the coefficient of EM of -0.853, indicating that the role of CEO competency serves a strategy to further reduce earnings impact on financial performance. Thus, hypothesis III is supported and confirmed that CEO competency moderates the relationship

between EM and financial performance. As displayed in Table 5 where leverage has negative impact on financial performance, similar results is displayed in Table 6. Cash flows and firm size have positive impacts on financial performance, indicating that large-sized financial firms with experience improved and increased financial performance. That is, an increase in cash flows and firm size each result to 9.024 percent increase and 2.212 per cent increase in financial performance, respectively.

**Table 6:** Moderating role of CEO competency on the relationship between earnings management and financial performance

<b>Variables</b>	<b>Pooled effect</b>	<b>Fixed effect</b>	<b>Random effect</b>
<i>Constant</i>	-13.678*** (3.343)	-17.784 (14.643)	-13.680** (5.494)
<b>Focus variables</b>			
<i>Earnings Management</i>	-1.040*** (0.329)	-0.792** (0.314)	-0.853*** (0.306)
<i>CEO Competency</i>	-0.980** (0.400)	0.527 (0.954)	-0.610 (0.613)
<b>Moderating variable</b>			
<i>CEO Competency X Earnings Management</i>	-0.590* (0.353)	-0.529 (0.328)	-0.585* (0.322)
<b>Control variables</b>			
<i>Leverage</i>	-0.062*** (0.017)	-0.048** (0.023)	-0.057*** (0.019)
<i>Cash flows</i>	12.786*** (4.738)	7.836* (4.828)	9.024** (4.622)
<i>Firm size</i>	2.313*** (0.510)	2.302 (1.874)	2.212*** (0.784)
R Square	0.1189	0.0613	0.1151
Adjusted R Square	0.1038		
F-value	7.85***	2.65**	
Wald X2			25.54***
Multicollinearity	1.34		
Serial Correlation			3.325 (0.077)
Poolability Test	3.84*** (0.000)		
Breusch-Pagan LM Test			50.19*** (0.000)
Hausman Test		5.82 (0.444)	
Obs.	356	356	356

Asterisks \*, \*\*, and \*\*\* are significant at the 10%, 5%, and 1% levels, respectively. See Appendix for variables measurement.

## 5. Implications and Conclusion

This study drives its motivation from the resource provision of CEOs, to explore the significance of CEO competency in reducing the impact of EM on financial performance. The empirical literature is replete with studies on how CG moderates the relationship between EM and financial performance (Abed et al., 2012; Bouaziz et al., 2020; González and García-Meca, 2014; Hassan and Ahmed, 2012). However, the role of CEO competency in EM financial performance nexus is less understudied, this is the main contribution of the study. The study

finds that EM has a negative and statistically significant impact on financial performance, indicating that return on assets decline as financial firms engage more in EM and discretionary accruals. While we predict that CEO competency has positive influence on financial performance, we find a contrary result that CEO competency significantly reduces financial performance. However, and interestingly, we find that the interaction effect of CEO competency and EM has lower influence on financial performance than the single effect of EM on financial performance. Thus, it indicates that CEO competency reduces EM effect on financial performance but the effect is small and not enough to erode EM effect.

On the implication of findings, boards and shareholders appointing CEOs may need to consider more individual capital resources of the CEO such as CEO interlocking, and CEO political ties, rather than focusing on only CEO human capital to evaluate the competencies of CEOs. The magnitude of CEO competency measured by CEOs human capital is not enough to erode EM effect on financial performance as CEOs also engage in self-interests goals. It also has implications for board members to institute more CG mechanisms that can monitor CEOs performance. For future studies, extending the study through the moderating role of CEO social competencies may further help reduces EM effects. While this study finds lower influence of CEO competency in reducing EM in the financial sector, the results may be different for non-financial firms, if explored and would offer additional insightful outcomes on the EM financial performance nexus.

## Appendix

### Variables measurement

	Measurement
<b>Dependent variable:</b>	
Return on Asset	The ratio of earnings before interest and taxes on total assets
<b>Focus variable:</b>	
Earnings management	The absolute values of discretionary accruals (residual obtained from modified Jones model (by Dechow et al. (1995))
<b>Moderating variable:</b>	
CEO competency	CEO competency index of the dummies of CEO degree, CEO professional qualification, CEO tenure, and CEO working experience.
<b>Control variables:</b>	
Firm size	Natural logarithms of total asset.
Cash flows	The proportion of net cash flows in operating activities to total assets
Firm's leverage	The ratio of total debt to total assets

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