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PERFORMANCE-BASED COMPENSATIONS AND EARNINGS SMOOTHING IN THE NIGERIAN INDUSTRIAL SECTOR

¹OKPE, Peter O. (MSc Candidacy) & ²DR. Edirin JEROH, ACA

^{1,2} Department of Accounting, Delta State University, Abraka, Nigeria

*Corresponding Author: OKPE, Peter O. Corresponding Author Email: <u>okpeterx@yahoo.com</u>

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ABSTRACT

One of the motivations for managing earnings as argued in the extant literature is compensation. This has raised some questions on the nature relationship between managers' compensation methods and EM. To answer this question, this paper focused on share-based compensations, bonus-based compensations and profit-based compensation. Financial data were retrieved from the annual reports of the selected pubic industrial and consumer goods firms over 10 years spanning from 2012 to 2021. The study adopted four separate panel regression (random effect model). The results revealed that; share-based compensations, bonus-based compensations, profit-based compensations affected earnings smoothing positively and significantly. This implies that, the higher the share-based compensations, bonus-based compensations, profit-based compensations, the more managers smooth their earnings. Performance-based compensations influence earnings smoothing of quoted industrial and consumer goods firms in Nigeria significantly. Consequently, the study recommends that, the regulatory agencies should revisit the governance code in order to review the compensation options available to managers and directors of the company. Again, owners and other key stakeholders should be cautious of the tendency for managers to engage in earnings smoothing especially when the outcome is favourable to managers.

Keywords: Share-Based Compensations, Bonus-Based Compensations, Profit-Based Compensations, Earnings Management.

INTRODUCTION

Globally, the issue of earnings smoothing (EASM) has gained the attention of both users and preparers of financial statements since the occurrence of the financial scandals recorded by WorldCom and Enron Corporation in the United States of America (USA) and Cardbury in Nigeria, among others. Worthy to note is that, the failure of corporate firms in Nigeria such as both Oceanic and interconnectal banks were attributed to earnings smoothing. Even till date, it occurrence is still on the rise. Evidently, in present times, presentation of misleading, exaggerated, or deceptive financial affairs abounds (Zhang, 2018). This therefore, the need to identify the precipitating factors that could reduce the Nigerian's firm's manipulative tendencies especially among quoted firms in the Nigerian industrial goods sector which serve as one of the most critical sectors of the Nigerian Economy.

Allen, Qian and Shen (2018) are of the opinion that, one of the chief factors which gives room for the rising earning smoothing cases lies in the loopholes of accounting standards in that the standard gives room for some forms of flexibility. This in turn has necessitated managers to exercise of judgment and estimates in preparing financial statements that are self-serving in nature. As a result, manager use the reported earnings as a means of misleading stakeholders about the firm's underlying economic performance. This signals that, the issue of self-seeking information within accounting parlance remains a highly debatable issue. Hence, researchers must make serious efforts to minimize the use of managerial discretion.

Furthermore, Oladejo and Oluwaseun (2019) are of the opinion that, the compensations and rewards paid to executives is one of the reasons why managers are involved in earnings smoothing. Most often, compensations are tied to firm's performance (accounting earnings) and that; firm's executive received compensations either in the form of share-based payment, cash base or both. Usually, both equity incentives and compensation made to executives seems may be paradoxical as regards its contribution to a firm (Farouk, 2016; Ishaq, 2017). However, the negative side in the usage of share-based payment is that of opportunistic behavior of managers that even though equity compensation allows the firm's executive to allocate profits to various stakeholders via appreciation and profit retention.

According to Fabrizi and Parbonetti (2017), there are two opposing arguments in respect of directors' ownership and earnings smoothing. The first opposing view is considered from interest alignment hypothesis proposed by Jensen and Meckling in 1976 as quoted in Douglass (2020). Accordingly, one of the most efficient ways to reduce agency conflicts (opportunistic behaviour of managers) is through increase managerial equity ownership. However, the second viewpoint called the entrenchment hypothesis hold that, increasing managerial ownership stake beyond a certain level, it could put managers make managers to take undue advantage of minority shareholders.

Arising from the above, there are two (2) conflicting questions which motivated the study. Firstly, what actually influences earnings smoothing, is it performance-based compensation? Secondly, what drives misleading reported earnings? Is it managers' opportunistic tendencies? Taking side on foregoing issues, the study linked executive compensation against earnings smoothing by examining the impacts of variable incentive payments, payment of bonuses in equity-linked instruments, and deferred compensation on earnings smoothing.

LITERATURE REVIEW

Conceptual Review and Linkage

The term earnings smoothing is defined as the manipulative technique aimed at decreasing the normal earnings variability which is often connected with risk. According to studies like Burgstahler, Hail, Leuz et al. (2018), Van-Tendeloo and Vanstralaen (2018), Cascino et al. (2017), Gaio (2018) and Kousenidis et al. (2019). It is computed as the ratio of earnings variability to operating cash flow variability as stated below;

Earnings Smoothing $= \sigma(X_{i,t})$

 $\sigma(\text{CFO}_{i,t})$

Where $X_{i,t}$ is firm i's earnings in year t and CFO_{i,t} is the cash flow from operations in year t.

High (low) values show low (high) variability in cash flows than in earnings and, consequently, a low (high) degree of artificial earnings smoothing. High values of earnings smoothing suggest low quality of earnings.

Bebchuk and Fried (2016) argued that, the linkage between performance based compensatory systems/policies and earnings smoothing is attributed to a situation when CEOs' power out turn that of board of directors. In such instance, CEOs' priority is to negotiate for compensations that better serve their own/self-interests at the expense of the firm's performance. This in turn, increases earnings smoothing. These performance-based compensations can be in the form of share-based, bonus-based and profit-based

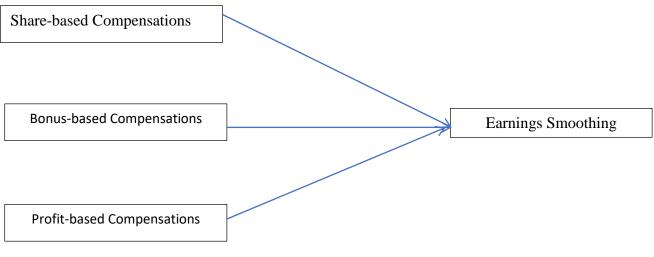


Figure 1: Performance-Based Compensatory Policies and Earnings Smoothing Source: Researcher's Conceptual Model, 2022

Theoretical Framework

Although, various earnings smoothing theories such as human capital theory (HCT), agency theory (AGT), managerial capital theory, Information assymentary theory (IAT) etc. have

developed over time by various theorists (Sun & Rath, 2018) but the current study only anchors on the Managerial Power Theory (MPT). This theory stresses that, market forces of supply and demands influence executive compensation making the achievement of ideal contract difficult, and in that way giving the executives the opportunity to sway compensation arrangements and to extract rent (Bebchuk & Fried, 2016). In other words, the extent at which the executive can manage powers determines the extent of rents they extracts (Ozkan, 2017). However, in companies where managers have relatively more power, Aduda (2017) argued that executive pay will have minimal effect on performance.

Bebchuk and Fried (2016) argued that, when CEOs' power out turn that of board of directors, their priority would be to negotiate for compensation that better serve their own interests at the expense of the firm's performance. In such instance, the board of director loses it monitoring responsibility of CEOs behaviours while the CEOs maximize their own selfish interests through higher pay. More so, the shareholders are at the receiving end of CEOs excessive rent extracts. This is the position of the study.

Empirical Review

Zubair and Abubakar (2021) investigated the impacts of executive compensation on earnings management in the Nigerian listed industrial goods firms from 2011 to 2020. The panel data approach was adopted. The study reported that, having controlled for firm size, share-Based Payment/compensation alongside fixed salary and allowances reduce earnings management tendencies.

Kadan and Yang (2019) investigated the effects of grants of executive stock options and restricted stock on earnings management from 1993-2018. The empirical results show that the moneyness of the options and the high stock prices both have effect on EM and insider sales. Furthermore, there is a positive relation between insider sales and EM in the vesting years of the options.

Cheng and Warfield (2017) studied the linkage among CEOs equity incentives, share-based compensation, stock ownership, and earnings management in Canada. Various equity incentive proxies are: un-exercisable options, option grants, restricted stock grants, exercisable options, and stock ownership. The study spanned from 1993-2015. The data is derived from Standard & Poor ExecuComp and is excluding financial institutions and utilities. They reported that managers with high equity incentives are more likely to report earnings that meet or just beat analysts' forecasts. Meanwhile, managers with high equity incentives are less likely to report large earnings surprises. Again, share-based remuneration and ownership increase earnings management tendencies.

Shuto (2018) investigated the effect of discretionary accruals on executive compensation. The study is related to Japanese companies and evidenced that discretionary accruals influenced executive compensation positively from 1991 and 2000. More so, Zhang (2018) reported that, higher CEOs stock ownership reduces earnings management from 1996-2001.

Chou and Chan (2018) investigated the impact of CEO characteristics on real activities manipulation of 73 banking institutions from 2004 to 2016. They reported that, CEO tenure, the audit committee directorship, audit committee diligence reduce earnings smoothing while audit committee compensation increased earnings smoothing.

Bala and Kumai (2017) examined the effects of discretionary accruals and governance mechanisms on financial statement fraud of 45 firms from 2006 to 2015. The study sourced

data from the Financial Market Authority (AMF). The study evidenced that, aggressive discretionary accruals increases fraud while conservative accounting policy reduced fraud tendencies.

RESEARCH METHODOLOGY

The study adopted both the longitudinal and *ex-post facto* research design. It is longitudinal because the study variables have both time series and cross sectional data properties. Meanwhile, the *ex-post facto* research design is appropriate because the variables are secondary in nature (existing data). Data were drawn from 45 firms which spread across the Nigerian consumer and industrial goods over ten years (2011-2020). The study adopted the panel regression estimate using the econometric views version 9. Econometrically, our model is given as follows;

$EASM_{i,t} =$	Earnings smoothing for firm i at year t
SHBC _{i,t} :	Share-based directors' compensations at year t.
BNBC _{i,t} :	Bonus-based directors' compensations at year t
PBCO _{i,t}	Profit-based directors' compensations at year t
α ₀ :	a constant
β:	coefficient of the regressor
ε;	the error term

RESULTS AND DISCUSSION

Data Descriptive

Table 1 and 2 accounts for the descriptive statistics, normality test, correlation analysis, and variance inflation factors.

Table 1

Descriptive Statistics

Variables	Mean	Median	Maximum	Minimum	Std. Dev.	Observations
EASM	0.03162	0.030018	0.054131	0.001452	18.14136	450
SHBC	0.101601	0.100008	0.214253	0.01253	9.895124	450
BNBC	0.030018	0.03161	0.041111	0.014255	81.21365	450
PBCO	0.971415	0.96116	0.984522	0.018952	85.40611	450

Table 1 evidenced that, EASM, SHBC, BNBC, and PBCO have average values of 0.03162, 0.101601, 0.030018, and 0.971415 but deviated by 18.14136, 9.895124, 81.21365, and 85.40611. More so, they reported minimum values of 0.001452, 0.01253, 0.014255, and 0.018952 but had maximum values of 0.054131, 0.214253, 0.041111, and 0.984522. This signals that the model is fit for parametric analysis. The Jacque-Bera test was used to test if the variables are normally distributed or not. It is presented in table 2:

Table 2

Normality Test Estimates

Variables	Jarque-Bera Value	P-values	Observations
ENSM	18.12300	0.065116	450
SHBC	9.253245	0.059788	450
BNBC	13.21363	0.085632	450
PBCO	1394869	0.245366	450

The Jarque-Bera (JB) test was used to test for normality. The study evidenced that, all the data sets are normally distributed. Hence, they are fit for parametric analysis.

Correlation Analysis

The correlation analysis was used to test the data fitness. This is with a view to check if two or more data have a higher and suspicious correlation in the data set. In this case, we have used the correlation matrix which reveals the relationship between the regressor.

Table 3Correlation Matrix

Variables	EASM	SHBC	BNBC	PBCO	VIF
EASM	1.000000				
SHBC	0.734419	1.000000			1.6756
BNBC	0.462550	0.083426	1.000000		2.1458
PBCO	0.589563	0.102532	0.362560	1.000000	2.1533

The correlation analysis reported in table 3 evidenced that, traces of multi-correlation issues is very low since the correlation coefficients of regressors are less than 80%. With regards to the correlation coefficients between the regressor and the regressand, SHBC and PBCO are positively yet moderately related with EASM while BNBC are strongly yet positively related with EASM. Lastly, the VIF evidenced that, none of the variables are multi-collinear. Hence, it is pertinent to conclude that, the regressors are considered fit in this regard.

Model Estimation and Discussions

This section dealt extensively on the presentation and discussion of the panel regression estimate:

Table 4 Model Estimation **Dependent Variable: EASM** Panel data: Random Effect N=450 Variable Coefficient Std. Error t-Statistic Prob. С 0.888085 0.084296 10.535270 0.0000 SHBC 0.424790 0.007908 5.370576 0.0000 **BNBC** 0.401010 0.147320 2.722028 0.0077 **PBCO** 0.209340 0.027838 7.519816 0.0000 **Panel Model Estimates** 0.814767 \mathbb{R}^2 Adjusted R² 0.804914 11.69388 (0.0000) 2.029644 F-Statistic & F (Prob) **Durbin Watson Panel Diagnostic Tests** 0.0997 χ^2 Hetero 0.3944 χ^2 Serial/auto-corr. 0.0861 0.8648 **Ramsey Reset** γ^2 Hausman (Prob.) Source: Researcher's Compilation from E-Views 9.0 (2022)

Table 4 evidenced that, the two (2) residual diagnostics: χ^2 Hetero and χ^2 Serial/auto-corr. with p-values greater than 5% signals that the model is Homoskedastic and free from serial correlation issues. More so, the stability diagnostics (Ramsey Reset Test) with p-values greater than 5% signals that the model is well-specified. Meanwhile, the relative statistics (R² and Adjusted R²) alongside the global statistics (prob. F-statistics) and Durbin Watson Test all evidenced that the model has a high explanatory power, statistically significant, and is devoid of serial correlation issue. Hence, it is fit for prediction. Lastly, the Hausman test with associated p-value of 0.8648 evidenced that, the Random effect model is feasible for the study. Premised on the foregoing three performance-based compensation proxies were discussed alongside earnings smoothing

Share-Based Compensations and EM

The panel estimate (REM) in table 4 reported that, share-based compensations exerted positive (0.424790) significant (0.0000) influence on EM in listed firms in Nigeria. By implication, when managers are compensated through shares (or equity), they tend to be driven by their opportunistic tendencies to act in ways that will guarantee such compensations in the future. As a result of the need to continuously guarantee such compensations, they tend to engage in EM practices. In line with the findings of the study, Kedia (2020), Kadan and Yang (2019); Cheng and Warfield (2017); Huddart and Louis (2018) findings whom found that, the reliance on stock options for compensations, and the high stock prices both have effect on EM and insider sales. However, Temple et al. (2020) reported that, equity incentives and executive compensation do not have any significant effect on real activity management of quoted industrial goods firms in Nigeria.

Furthermore, bonus-based compensations have a positive (0.401010) and significant (0.0077) influence on eamings smoothing in listed firms in Nigeria. By implication, as managers become increasingly aware of the bonuses attached to reported performance, they are tempted to influence reported performance in a manner that will ensure that such bonuses accrue to them in the long run. This argument was maintained in the study of Guidry et al. (2020); Holthausen et al. (2021); and Shuto (2018) but contradicts Lam (2019) findings.

Lastly, profit-based compensations have a positive (0.209340) and significant (0.0000) influence on earnings smoothing in listed firms in Nigeria. By implication, as managers become increasingly aware of the incentives attached to reported earnings or profit, they are tempted to influence reported performance in a manner that will ensure that such bonuses accrue to them in the long run. For instance, directors whose compensations are tied to how much they generate as profit in a given financial years may, by the findings of this study, be tempted to manage reported profits in their own favour, regardless of the true state of affairs. In line with the findings, Douglas (2020); Nelson and Rahim (2018) and Al-Nasser (2018) findings.

CONCLUSION AND RECOMMENDATIONS

The study concludes that, performance-based compensations influence earnings smoothing of quoted industrial and consumer goods firms in Nigeria significantly. Consequently, recommends that, the regulatory agencies should revisit the governance code in order to review the compensation options available to managers and directors of the company. Again, owners and other key stakeholders should be cautious of the tendency for managers to engage in earnings smoothing especially when the outcome is favourable to managers. Further, management compensation structure should be adequately debated and monitored by key stakeholder groups and schemes that will not be detrimental to the well-being of the firm in the long run.

The study has contributed significantly to knowledge by providing empirical findings that explain the impact of share-based compensation schemes on EM in listed Nigerian firms. This is expected to provide researchers in this area with knowledge upon which future research of this nature can be based.

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