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MONITORING MECHANISMS AND CORPORATE ENVIRONMENTAL ACCOUNTING DISCLOSURE OF NIGERIAN LISTED DEPOSIT MONEY BANKS

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Abstract: This study examines the effect of monitoring mechanisms on corporate environmental accounting disclosure of Nigerian listed Deposit Money Banks (DMB's) for the period of 2009 – 2018. The population and the sample size of the study consist of the fourteen (14) listed Nigerian DMBs as at 31st December, 2018. Specifically, the study seeks to find out if monitoring mechanisms (proxied by firm size, firm age, leverage, dividend and earnings) have any effect on banks' corporate environmental accounting disclosures (CEADs). The study employed multiple regression techniques and data were collected from secondary source through the annual reports and accounts of the listed firms. The findings reveal that firm size, firm age and dividend per share are statistically, positively and significantly influencing the CEA disclosures of Nigerian listed DMBs but at 1% level of significance, while leverage and earnings per share were found to be statistically and insignificantly related with CEA disclosures. The study recommended that banks' management should intensify efforts towards expanding their assets, justifying the reasons for their quotation, making high and a consistent dividend payment, strengthening their earnings generation capacity while improving their gearing ratio through ensuring a reasonable balance between debt and equity as it has been found empirically to be a monitoring attributes for banks to engage in corporate environmental accounting disclosures.

Keywords: Monitoring Mechanisms, Environmental Disclosure, Leverage, Firm Age, DMBs

1. BACKGROUND ISSUES

Today, business firms are becoming more sensitively aware of their functional roles and responsibilities towards the operating environment,

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resulting in a growing trend in social and environmental reporting. Corporate managers/organizations use the accounting medium to communicate to the stakeholders corporate information not only about the issues pertaining to their economic well-being but also relating to their society and environment within which they operates. Meanwhile, corporate financial reporting is the window through which companies communicate to the outside parties particularly on issues about their performance in terms of growth, profitability, efficiency, and responsibilities both social and environmental (Shehu, 2013 and Ja'afar, 2018).

Several attempts have been made by previous studies in the literature to attach meanings to corporate environmental accounting disclosure (CEAD) and it overall significance to the practicing firms' performance. The term "CEAD" may be defined as the assessment, measurement and reporting of expenditures which are peculiar to the firm's operating environment (Ja'afar, 2018).Thus, it may simply means a construct that suggested the formal extension of company's responsibilities to diverse stakeholders' groups, their formal inclusion in the corporate decision making process, and their treatment in a more preferred, ethical and social ways, in addition to the conventional economic responsibilities owed to its primary stakeholders (Ja'afar, 2018). In fact, it has gone beyond charitable offerings to operating environment as viewed by many scholars. The concept was first introduced in the mid-90s. Since then, many researchers have developed an interest in the topic. CEAD reporting is a critical way for firms to communicate with society, to inspire the interests of the public that they are coping up with their environmental, social and economic expectations (Branco and Rodrigues, 2008).

CEA disclosure is among the contemporary issues that are lingering among stakeholders; including management, employees, creditors, government, academicians, analysts, practitioners etc. A rational firm must align the demands, interests, expectations and values of multitude stakeholders with its core economic activities. Corporate accountability is a fractional part of CSR. A socially responsible firm must be accountable in all aspects. Several researchers have reported in the literature, a growing demand for firms to report their CSR activities.In fact in the Nigerian environment, corporate entities have considered CSR as a voluntary activity hence, the need to examine those factors (monitoring attributes) that encourage or otherwise, the management of such firms from embracing CEAD (Shehu, 2017 and Ja'afar, 2018).

The term monitoring attributes may be perceived to refer to as those drivers (factors) that motivates, induces or influences business firm to

embark on CEAD activities. Firms do not only fulfill the core business objectives but in addition to that, they focus on the environment, society and other stakeholders by increasing welfare activities (Ja'afar, 2018). Empirical literature argues that, being socially responsible may not only contribute positive changes in a company's financial performance but increases it competitiveness, depending on how it is engaged. CEAD activities may increase profits through efficiency improvements and a more sustainable use of resources. However, it requires substantial financing that could make costs not to exceed the aforementioned benefits and profits may be eroded (Sandra and Zymantus, 2013).

Futhermore, empirical evidence have shown that, variable like firm Size, firm age, firm growth, dividend and leverage of a firm have been considered as key drivers (monitoring attributes) that perhaps explains and or predicts the levels of CEAD and practice in many previous studies. Speaking from the theoretical point of view, the perspective of slack resource theory was, "for a firm to conveniently decides on whether to respond to any internal or external investments, they must first analyses their ability to make profits either huge or low''. Therefore, it is logical to consider the level of profitability as one of the most important resources that determines the size of a firm which may ultimately influence firms` CEA decisions.

Similarly, as firm profitability signifies the ability of an institution to maneuver it assets (resources) and generate income, then the size of the reporting firm should have either a significant positive or negative impact on CEA practice and disclosure. Thus, the expectation here is, larger firms would like to embrace and disclose more of CEA issue because it has correlates with their internal and external activities and it is an avenue for innovation, competitive advantage, value creation and superior economic performance (Abdulazeez, 2016 and Ja'afar, 2018). Based on this, Abu Sufian (2012) stated in his work that, over the past few decades, there has been quantum of arguments, controversies and debates in the literature as to whether any increase or decrease in firms' total assets can directly translate into its CEA involvement.

Again, it has been argued by Faris *et al* (2012) that the corporate existence of a firm or its period of quotation in the stock exchange commission whether short or long will determine to a larger extent the level of firm's participation in corporate environmental accounting disclosures. Thus, the longer the period of firm's existence or quotation, the more it will be tempted to engage in corporate environmental accounting disclosures. Hence, the expectation here is that old firms must have gathered the necessary momentum, status, resources and reputations to embark on CEA disclosures than their younger counter parts.

Interestingly, Firms with high earning potential have been argued to have more ample opportunities as well as the strong ability to render immense contribution to the operating environment than those with poor and inconsistent earning capacity (Ja'afar, 2017). This has further expantiates the fact that the higher the earning capacity of a firm the larger the quantum that would be set aside as contribution to the operating environment which is pre-requisite to generating such higher returns. Conversely, the lower the earning capacity of a firm the little or nothing that would be set aside as reciprocal to the operating environment. It is therefore, clear to state at this point that firms with strong earnings potential are more likely to embrace corporate environmental accounting disclosures.

Indeed, dividend per share (DPS) which is considered as the shareholders' returns on investment have been argued to be a key driver of corporate environmental accounting disclosure of listed Nigerian deposit money banks (DMBs). Thus, the higher the dividend of a firm, the more would be the payout ratio (POR) and the retained earnings by way of capital reserve, revenue reserve, general reserve as well as contingent reserve that would take care of special needs most especially the firm's operating environment (Abdulazeez, 2016 and Ja'afar, 2017). Hence, dividend has also been considered as a key driver for firms to engage in corporate environmental accounting disclosures.

Accordingly, it has been argued by past researchers that the level of firm leverage is an important explanatory variable that determine the extent of firm's participation in corporate environmental accounting disclosures (Umulkher and Muganda, 2017; Shehu and Farouk, 2013). It therefore, buttresses the fact that low levered firms are more likely to embrace environmental accounting practices than those that are highly levered. This is based on the notion that firms with low financial leverage are in most cases facing less risks and external challenges from their creditors thereby having ample opportunity to invest in sustainability, societal and environmental matters hence, the need to report on these activities as part of their corporate environmental accounting disclosure practices. Therefore, the level of leverage is expected to have an influence on the CEA disclosures.

In view of the fact that CEA disclosures by corporate entities has been one of the major concerns for management experts, investors, regulators, analysts and academic researchers, the study still discover a yawning gap in terms of empirical contribution of factors that determines the CEA disclosure and practice, most especially in the Nigerian banking sector. Meanwhile, to the best of our knowledge, very few studies on the determinants of CEA disclosure have been conducted in Nigeria,

particularly in the banking sector despite the pivotal role they play in any given economy. However, alongside the slim contribution, methodological and period gap were also identified in the studies. Therefore, the study investigates the monitoring attributes and CEAD of listed Nigerian DMBs. In line with this objective, the study therefore hypothesized that, firm size; firm age, firm growth, dividend and leverage have no significant impact on CEA disclosures by the listed Nigerian DMBs.

The study is designed to examine the monitoring attributes of corporate environmental accounting disclosure of listed Nigerian deposit money banks. The study covers the period of ten (10) years ranging from 2009 to 2018. The selection of this period is considered necessary as it captures the post-banking consolidation era and the massive illiquidity that have rocked the banking sector which was posed by the global financial crisis of 2008 to 2009. These scenarios may affect the firm's level of involvement in corporate environmental accounting disclosures. Again, the continuous illiquidity crisis that have negatively affected some banks viz; Skye Bank plc and Diamond Bank Plc despite the consolidation framework that have been put in place is considered as the basic rationale behind the selection of this period.

Moreso, the Nigerian deposit money banks (DMBs) as the domain of this study is considered more appropriate because of the increasing distress syndrome and the challenges faced in coping up with the demand of customers in particular and the operating environment in general. More specifically, the independent variable of the study is monitoring attributes proxied by firm size (FS), firm age (FA), earnings per share (EPS), dividend per share (DPS) and firm leverage. The dependent variable of the study is represented by corporate a environmental accounting disclosure (CEADs) which is measured using the global environmental reporting initiatives commonly known as Global Environmental Disclosure Index (GEDI) as modified by Sutanto (2002); with special emphasis on donations, scholarships, charitable contributions and other related indices.

Accordingly, the outcome of this study will be of immense benefit to the existing body of knowledge. Despite the fact that there are a lot of studies on monitoring attributes of corporate environmental accounting disclosure around the globe, there is dearth of evidence using data from previous researches that empirically investigated the relationship between the monitoring attributes (firm size, firm age, earnings per share, dividend per share and leverage) and corporate environmental accounting disclosures (CEADs) of Nigerian listed deposit money banks. Therefore, it will serve as a reference for further research in this domain.

Also, the outcome of this study will be of immense benefit to a large number of users of accounting information. Investors will know the relationship between earnings per share (EPS), dividend per share (DPS), leverage and corporate environmental accounting disclosure of the Nigerian deposit money banks (DMBs) as they invest their funds for expected returns. The industrialist will find this study relevant in identifying the best financing mix which will be more effective at encouraging an efficient operation of the firms. The study will also make some significant contribution to the field of accounting and finance in Nigeria. This is based on the notion that there are controversial issues among scholars in respect of the association in the existing literature between monitoring attributes and corporate environmental accounting disclosure. Thus, the study will be among those that may provide additional evidences for further debates in the field of accounting and finance by students and researchers.The result of this study will be of great benefit to managers in maximizing investors' returns so as to continue to impact on the socio-economic well-being of their host communities, shareholders in making an informed judgments as well as determining management efficiency in managing the affairs of a firm; employees in demanding for increase in salary and other incentives as well as good working condition, and government for the sole motive of revenue generation in form of taxation. In addition, the government and its agencies could find the outcome of this study relevant and useful, thereby providing an enabling environment through the provision of adequate security measures, regular power supply and other infrastructural facilities needed by the Nigerian deposit money banks for effective, efficient and hitch-free operations.

The remaining part of this paper is organized as follows: Section two provides the review of the relevant literature concerning the subject matter and the theoretical framework that underpins the study. Section three dealt with the methodology adopted for the study. Section four centered on the discussion of the results and the hypothesis testing. While conclusion and recommendations were presented in section five.

2. REVIEW OF RELATED STUDIES ANDTHEORETICAL EXPLANATIONS

Several studies have attempted to evaluate the impact of various factors as monitoring attributes of CEAD. Meanwhile, series of factors such as firm size, firm age, earnings, dividend and leverage among others have been examined by prior literatures, to see whether they have significant influence on CEA practice and determine its disclosure by the practicing entities.

However, the results advanced by majority of these studies seem to be mixed and inconclusive.

2.1. Firm size and CEAD

Indeed, over the years CEAD literatures have experienced series of arguments and debates as to whether changes in the firm's total assets will leads to firm involvement into CEA disclosures. Logically, the increase in the assets size of the reporting firm should result to a positive increase in their contributions to multiple stakeholders. It should in fact be able to define the extent to which firm engaged in CEA practice and disclosure. Studies conducted by Ahmed and Nicholls (1994), Akhtaruddin (2005), Alam and Deb (2010), have found a significant positive relationship between the firm size and the extent of CEA disclosure. In line with their findings they concluded that, firm with larger assets size invests much in CEAD. Therefore, the larger the firm's operating assets the greater it spending in CEAD and environmental issues. Meanwhile, except studies by Enny and Yulita (2013), and Egiringa *et al* (2013) who found a negative and insignificant relationship, all other studies such as (Orlitzky, 2001, Lepoutre and Heene, 2006, Udayasankar, 2007, Husted and Allen, 2007, Krishna, 2008, Hsiang-Lin *et al*, 2009, Ponnu and Okoth, 2009, Yao *et al*, 2011, Bayoud, Kavanagh and Slaughter, 2012, Munasinghe& Malkumari, 2012, Akrout and Othman, 2013, Akano *et al*, 2013, Shehu and Faruk, 2013, Narakrisna and Purwaningsih, 2013, Ja'afar, 2018), have reported a statistically and significant positive relationship between the firm size and CEA. From the theoretical point of view, the slack resource theory has suggested a positive relationship between firm's resource and it overall activities. According to slack resource theory, for a company to successfully respond to adapt to any internal or external issues, it resources have a role to play.

2.2. Firm age and CEAD

Firm age has been examined by prior studies as one of the key drivers of CEAD practice and the level of CEA disclosure. It is in line with this position that a study by Jurica and Lady (2012) have further argued that, a firm which operates for many years will always find it very easy in dealing with issues that relates to their performance be it economic or social. According to them, firm that is in operation for many years will likely embark on CEAD than those that operate for few years. Meanwhile, it is expected that, the older the firm's incorporation or quotation, the more improvements and achievements are recorded, hence, the more experience it will acquire concerning the community and environmental values, significance and pressures. Studies conducted by Patten (1991), Roberts, (1992), (2008) and

Untari (2010), Alam and Deb (2010), Gamerschlag, Moeller and Verbeeten (2011), Sorasart (2012) and Maleya and Willy (2013) all found that firm's age has significant positive impact on CSR disclosure. Another contrary result has been advanced by Abu Sufian (2012) in which he found that firm's age has insignificant impact to CSR disclosure and practice. Also, Akhtaruddin (2005), Putra (2009) and Prihandono (2010) have reported no relationship between firm's age and CEAD, while, studies by Yeganeh and Barzegar (2014) found a negative relationship. However, this study argues that, firm age is an important tool for measuring the firm's reputation which is part of goodwill (fictitious asset] and hence, part of the resources of the company. Therefore, firms that have long existence spend more on CEAD to manage their reputations.

2.3. Earnings per share and CEAD

Majority of prior studies that examines corporate earnings/ performance/ profitability as against CEAD usually built their prior expectation based on logical understanding and the position taken by the stakeholders' theory which already predicted a positive relationship between firm's earnings/ profitability and CEAD. Prior studies on CEAD and corporate earnings which includes (O'Riordan and Fairbrass, 2008, Ponnu and Okoth, 2009, Robins, 2011, Jurica and Lady, 2012, Mahbuba and Farzana, 2013, Shehu and Faruk, 2013, Akano, Jamiu, Olaniran and Timothy, 2013, Ebiringa, Yadirichhukhu Chigbu and Ogochukwu, 2013) have established a positive and significant relationship. However, Ponnu and Okoth (2009), Martins and Yunita (2012) have drawn conclusion that strongly contradicted the preceding findings by establishing results which shows no significant relationship.

2.4. Dividend per share and CEAD

Moreover, in line with the stakeholders' theory, it is logically expected that any company which strived to payout dividend every year to its primary stakeholders, irrespective of the pattern followed (i.e whether following constant, stable or other pattern found suitable and legal to be applied) should be able to contribute and to cater a bid to the demand of the external stakeholders. Thus, the argument here is, dividend is nothing more than a share of corporate profits due for distribution to internal stakeholders, therefore, upon distributing such benefits, it is expected that all stakeholder that could directly or indirectly affect or be affected by the decisions and actions of the distributing entity be considered and benefited. Although, empirical evidence have shown that, no much effort was put forward by prior studies to evaluate the likely influence of corporate dividend on CEAD.

Meanwhile, very little contribution was identified by the present study. However, a research conducted by Faris *et al* (2012) titled Financial and non -financial determinants of CEAD in Jordan, dividend was found to have a negative but insignificant relationship with CEAD Moreover, contrary to the finding documented by Faris *et al* (2012), a study conducted by Faruk and Shehu, (2013) on its part found a significant positive relationship between corporate dividend and CEAD disclosure. In any case, following the argument put forward by the most advocates of agency theory, dealing with multiple stakeholders may mean so much that. To reduce the intensity of agency conflicts, corporate managers may decide to carry all stakeholders along, however, treat the primary shareholders more prominently.

2.5. Leverage and CEAD

Previous studies argues that, even in an organization that is credited with huge profitability potentials, managerial decision to CEAD practice and disclosure, usually depend on the current position of their gearing costs or cost of borrowing which often affect a significant portion of corporate earnings. Therefore, literatures presumed that, firm with high level of leverage will have a higher agency costs and low response to CEA disclosure and practice (Belkaoui and Karpik, 1989). However, based on Agency theory, the corporate principle of separation of ownership from the management brought the issue of agency cost theory. Therefore, literatures documented that managers who are agents to the shareholders (principal] should act in such a way to reduce agency costs thereby, maximizing the value of the firm. Moreover, according to agency theory, increase in debt ratio decreases the ownership risks but the agency cost. Meanwhile, the higher the agency cost, the larger the managerial incentives to disclose more information. With respect to social and environmental information disclosure, firms that have higher financial leverage are more inclined to build good relations with multiple stakeholders group, hence, are more likely to adequately disclose more social and environmental information. Studies conducted by Guillaume (2010), Broberg and Collin, (2010), Broberg and Collin, (2010), and Sorasart (2012) Faris *et al* (2012), Uwalomwa and Ben-Caleb (2012) Faris *et al* (2012), Farouk and Shehu (2013) Maleya and Willy (2013), have attempted to examine the impact of leverage on CSR using different data sets, however, found Leverage to be negatively associated with CEA disclosures.

2.6. Theoretical Explanations and Model Build-up

The theoretical framework that best explain the relationship among the variables of the study include; Stakeholder theory, Slack resources theory

and Agency theory. Virtually, there are many theories in extant literatures that have been used to underpin research of this nature. They include Stakeholders' Theory, Social Contract Theory, Instrumental Theory, Legitimacy Theory, Slack- Resources Theory, Resource Dependency Theory, Agency Theory and Stakeholders' Theory among others. These theories are commonly used compactly in analyzing and explaining the nature and purpose of corporate social and environmental accounting disclosure (CS and EA) as well as provide answers to the question of what, why and how should business firms embark on CEA disclosure and practice. These theories are jointly considered imperative in understanding and justifying the needs for firm's involvement in CEA disclosure programs.

The Stakeholders' Theory is an extension of legitimacy theory that forwarded the argument of taking the society into account in every firm action. The proponent of this theory suggested the need for firms to consider not only community but multiple stakeholders' groups in their decisions and actions. These stakeholders are classified into different classes and needs diverse information which firms must cautiously respond to it in a more variety ways. Stakeholders' Theory has indeed become one of the most important and frequently cited theories in CS&E researches. According to this theory, paying attention to the interest of all stakeholders in a business is a useful way of developing socially responsible behavior by managers and that a socially responsible organization is one in which obligations to stakeholders figure prominently in the decision-making of its managers (Clarkson, 1995).

Furthermore, this study supports the adoption of Legitimacy theory and Stakeholders' Theory. The research therefore, is of the view that Legitimacy theory and Stakeholders' Theory better explain the variables of the study, hence, adopted them as the theories with the better nexus underpinning the variables of the study. Legitimacy theory on one hand, suggested the need for firms to respect community values and ensure overall corporate community concerns. While on the other hand, Stakeholders' Theory attempted to align the interests of corporate entities and that of all interesting parties. Hence, it has become a subject of empirical investigation among researchers in the recent time.

The theory is developed based on observation that a firm is only able to carry out it activities as a result of the resources available at the disposal of the firm which is normally set aside to the predefined activities. As asserted by Shehu (2013), for a company to successfully adapt to any internal or external pressure for adjustment or changes, the set-aside resources have a role to play. This theory therefore, can be used to anchor corporate

profitability; (ROA) and firm size as variables of the study. While profitability is the ability of firm's asset to create or generate profit, corporate size represent the natural logarithm or total asset owned by a company and hence, part of the resources of the company. Stakeholders' Theory described and aligned the organic relationship that exists between firms, their attributes and the society. Uwalomwa, Olubukumola and Ajayi (2011) also discovered in their research that, the proponent of Stakeholders' theory has critically examined the ends of organization activities and the means of achieving these ends in a more distinguished way that they are hardly found in many other strategic social and management theories.

The corporate principle of separation of ownership from the management brought the issue of agency cost theory. Therefore, literatures documented that managers who are agents to the shareholders (principal] should act in such a way to reduce agency costs thereby, maximizing the value of the firm. Moreover, according to agency theory, increase in debt ratio decreases the ownership risks but the agency cost. Meanwhile, the higher the agency cost, the larger the managerial incentives to disclose more information. With respect to social and environmental information disclosure, firms that have higher financial leverage are more inclined to build good relations with multiple stakeholders group, hence, are more likely to adequately disclose more social and environmental information. Hence, this theory provides a theoretical linkage for financial leverage as one of the study variables.

3. METHODS AND DESIGN

This study adopts the Ex-post factor as the research design. The data for the study were mainly secondary (i.e obtained from the audited annual reports and accounts of the sampled banks). The population and the sample size of the study consist of the fourteen (14) listed Nigerian DMBs as at 31st December, 2018. While the period covered is ten (10) years ranging from 2009 to 2018. The period of the study is considered adequate and appropriate because it has captured the vital era of post-banking consolidation project and the global financial meltdown of 2008 to 2009 respectively; and thus, expected to have eroded several internal and external programs and activities of DMBs including CEAD programs. This research work is descriptive and highly empirical as it embraces the use of panel regression technique as tool of analysis. The explanatory variables of the study comprises of firm size, firm age, earnings per share, dividend per share and leverage, whereas the dependent variable of the study is corporate environmental accounting disclosure (CEAD).

Table 1: Measurement of Variables

Variables Acronym	*Variables Name*	*Variables Measurement and Source*
CEAD	Corporate Environmental Accounting Disclosure	Measured as total CSR score of the banks using carol's index of CSR (Abubakar, 2015)
FS	Firm Size	Firm size; Measured as natural logarithm of Total Assets of the banks (Shehu, 2013).
FA	Firm Age	Firm age; Measured as number of listening years of the banks (Jinfeng and Huifeng, 2009)
EPS	Earnings Per Share	Earnings per share; Measured by dividing the Profit after tax to ordinary shares of the banks.
DPS	Dividend Per Share	Measured as dividend per share of the banks (Shehu 2013)
LEV	Leverage	Measured as ratio of debt to equity of banks (Monteiro and Aibar, 2009)

Sources: Compiled by the Author, 2018

The model used to empirically test the hypothesis formulated in the first section is as follows:

$$CEAD = \alpha + \beta_1 FS_{it} + \beta_2 FA_{it} + \beta_3 LEV_{it} + \beta_4 DPS_{it} + \beta_5 EPS_{it} + \varepsilon_{it}$$

Where:

CEAD = Corporate Environmental Accounting Disclosure

α = Constant

$\beta_1 - \beta_5$ = Coefficients of Regressors

FS = Firm Size

FA = Firm Age

EPS = Earnings Per Share

DPS = Dividend Per Share

LEV = Leverage

4. RESULTS AND DISCUSSIONS

This section presents the results of data analysis and tests of hypotheses formulated earlier in section one. First, descriptive statistics, followed by the correlation matrix table and then the summary of regression results are presented andanalyzed, and then policy implications and recommendation have been drawn and made from the findings of the study.

4.1. Descriptive Statistics

The sample descriptive statistics is first presented in table 4.1 where minimum, maximum, mean and standard deviation of the data for the variables used in the study are described.

Table 2: Descriptive Statistics

Variable	*Minimum*	*Maximum*	*Mean*	*Std. deviation*
CEA	0	1	0.5381	0.2116
FS	7.6820	20.6071	14.1833	2.4041
FA	12	124	52.5364	30.1936
LEV	0.1200	144.0000	5.1672	23.5972
DPS	0	2.0550	0.2304	0.3998
EPS	0.0003	13.4900	0.9033	1.6187

Source: STATA Output result

Table 2 shows the descriptive statistics for the dependent and the independent variables. CEAD which is the main variable has the standard deviation values of 0.2116 and the average values of 0.54 approximately, which indicated that about N0.54 billion was spent by the Nigerian DMBs on CEA disclosures during the period of the study. This figure is never in anyway surprising despite the great financial shocks (problems) encountered by the Nigerian financial sector during the melt down and consolidation project within the period of the study. The table has described that except for Firm age and Leverage that shows a prominently high standard deviation of 30.19 and 23.59 respectively, all other variables included in the model of the study have relatively lower standard deviations that ranged between 0. 40to 2.40. This high standard deviation of Firm age and Leverage may indicate that the sampled banks are of different sizes and maturity. This is further clarified by their average values of 0.23, 0.90, 5.17, 14.18 and 52.54 respectively. Hence; this further clarified the reason for the inclusion of the variables in the model of the study.

4.2. Correlation Matrix

Table 3 contains correlation values between dependent and independent variables as well as between independent variables themselves. The values are obtained from stata output. Checking the pattern of the relationships between dependent and independent variables, it has been observed that the variables correlate perfectly well and all are positively significant except for leverage (LEV) and Earnings per share (EPS). Thus, the relationships between most of the explanatory variables are minimal and negligible. Hence, there is no problem of singularity of data.

Table 3 reports the association between dependent and independent variables as depicted respectively (CEA = Corporate Environmental Accounting, FS = Firm Size, FA = Firm Age, LEV = Leverage, DPS = Dividend Per Share Paid, and EPS = Earnings Per Share).

Table 3: Correlation Matrix

Variable	*CEA*	*FS*	*FA*	*LEV*	*DPS*	*EPS*
CEA	1.0000					
FS	0.1020	1.0000				
FA	0.1418	-0.2660*	1.0000			
LEV	-0.0406	-0.1188	0.0665	1.0000		
DPS	0.1736*	0.0981	-0.0751	-0.1057	1.0000	
EPS	0.1407	-0.0989	0.1820*	0.1115	0.2982*	1.0000

Source: STATA Output result

Table 3 indicates that corporate environmental accounting is 10% positively and significantly relatedwith firm size. This signifies that the larger the firms' value of assets, the more is committed to corporate environmental accounting. It also shows that firm age is positively and significantly associated with corporate environmental accounting at 14%. This signifies that the larger the numbers of years in existence, the more listed DMBs are tempted to corporate environmental accounting disclosures. In addition, leverage is just 4% which is negatively and insignificantly related with corporate environmental accounting. This signifies that the lower the levels of firms' leverage, the lower the CEA disclosure and that a decrease in the level of firms' leverage will to lead to adrastic fall in CEA disclosure. Moreso, dividend per share is at 17% level of association with corporate environmental accounting which is positive and significant. This signifies the fact that the higher the DPS, the more will be set aside by the listed DMBs for corporate environmental accounting disclosures.However, EPS appears to be at 14% level of association with corporate environmental accounting disclosure of listed deposit money banks in Nigeria which is positive but insignificant. This implies that the higher the level of EPS, the little or nothing is meant for corporate environmental accounting disclosures. This decision may not be surprising due to the opportunistic tendencies by the management of the listed DMBs in Nigeria.

4.3. Robustness Test and Hypotheses Testing

This section present the results of robustness tests conducted in order to improve the validity of all statistical inferences for the study. Indeed, robustness checks are applied to ascertain the result under different

circumstances. The robustness outcomes relative to the original results provide greater credibility to the overall findings of the study. The regression results used for the test of hypotheses of the study is presented as follows:

Table 4: Robustness Test and Hypotheses Testing

Variable	*VIF*	*Tolerance Values*
FS	1.10	0.9097
FA	1.12	0.8941
LEV	1.04	0.9583
DPS	1.15	0.8686
EPS	1.18	0.8474
Mean VIF	1.12	

Source: STATA Output result

Table 4 indicates that majority of the independent variables including firm size; firm age and dividend per share (DPS) are all positive and significant except leverage and earnings per share (EPS) which are insignificant. Indeed, all the explanatory variables are significant at 1% level of significance with the exception of leverage and Earnings per share which are not significant (See Appendix). Similarly, to formally substantiate the lack of multicollinearity between the explanatory variables, collinearity diagnostics are observed and that the Variance Inflation Factor (VIF) and tolerance values indicate no multicollinearity problem in the data. Most importantly, the Fixed Effect (FE) model has been interpreted as the most preferred model of the study. It reveals that all the explanatory variables are good determinants of corporate environmental accounting disclosures by the listed deposit money banks in Nigeria except leverage and earnings. The implication of this is that the model is well-fitted and the regressors are properly selected, combined and used.

4.4. Summary of Regression Results

This section presents the regression result of the dependent variable (CEA) and the independent variables of the study (firm size, firm age, leverage, dividend per share, earnings per share). It follows with the analysis of the association between dependent variable and each explanatory variable individually and cumulatively. The summary of the regression result obtained from the model of the study (**$CEAD = \alpha + \beta_1 FS_{it} + \beta_2 FA_{it} + \beta_3 LEV_{it} + \beta_4 DPS_{it} + \beta_5 EPS_{it} + \varepsilon_{it}$).**

Table 5: Summary of Regression Results

Variable	*Beta Coefficient*	*T- values*	*P- values*
FS	.0123	1.67	0.098
FA	.0012	2.10	0.038
LEV	-.0003	-0.36	0.717
DPS	.0771	1.70	0.091
EPS	.0107	0.95	0.345
R^2 – within			0.0707
F- Statistics			2.00
F- Sig.			0.0862

Source: STATA Output result

The cumulative R^2 (0.07) which is the multiple coefficient of determination gives the proportion or percentage of the total variation in the dependent variable explained by the explanatory variables jointly. Hence, it signifies that 7% of the total variation in corporate environmental accounting disclosures of listed deposit money banks in Nigeria is caused by their level of size, age, leverage, dividend per share and earnings per share. This indicates that the model is fit and the explanatory variables are properly selected, combined and used. This can be confirmed by the approximate value of F- Statistics of (2.00) which is significant at 10% level of significance.

4.4.1. Firm Size and CEA

From the table5, Firm Size has a t-value of 1.67 and a beta value of 0.0123 which is significant at 10%. This signifies that Firm Size is positive and significantly influencing CEA practice in the Nigerian DMBs. It therefore, implies that for every two Naira increase (N2 approximately) in the value of total asset of the sampled Banks, then CEA disclosure will increase by N0.012. This may be as a result of the fact that firm with larger assets have enough resources at their disposal which is always set aside to compete with several other large ones and to convince lenders and investors the safety of their resources / investments, as well as having an edge over other smaller firms by heavily embarking and investing on CEA disclosure, Hence, in line with the relationship established by slack resources theory. Interestingly, this study is in line with the findings documented by previous researches such as the Hughes and Anderson, (2001), Gray *et al*. (2001), Jaffar *et al*. (2002), Joshi and Gao, (2009), Jurica, Lady and Prillia, (2012) and Abu sufian (2012) among other prominent studies.

4.4.2. Firm Age and CEA

In table 5, firm age has a t-value of 2.10 and a beta value of 0.0012 which is significant at 1%. This signifies that firm age is positively and significantly influencing CEAD of Nigerian DMBs. It therefore, approximately implies that for every three years increase (3 years) in existence by Banks, the CEAD will increase by N1.2m. This may be as a result of the fact that banks that perform economically well are more likely to have larger number of years, and therefore, banks with large number of years in existence have greater incentives to embark on CEAD as this will increase their reputations, ensure sustainability andportray good fortune for the banks. This findings is supported by the studies conducted by Alam and Deb (2010), Untari, (2010), Abdul-azeez and Ja'afar (2017) and Ja'afar, (2018) amongst other prominent studies.

4.4.3. Leverage and CEA

Leverage has a t-value of -0.36 and a beta value of -0.0003. This signifies that leverage is negatively and insignificantly impacting on CEAD of listed DMBs in Nigeria. It therefore, implies that for every thirty-six kobo (N0.36) decrease in leverage of banks, CEAD will also decrease to a larger extent. This may be attributed to the fact that banking sector finance its business activities mainly with equity which attracted higher returns and on contrary; where the proportion of debt is higher than that of equity, there may be little or no returns which is expected to have enable them to embrace CEAD. Studies conducted by Clarkson (2008), Yousoff and Lehman (2009), Ja'afar (2017) as well as Comier and Magnan, (2001) have jointly reported that lower levered firms have a lower propensity for disclosures of environmental information in their annual reports than the highly levered firms.

4.4.4. Dividend Per Share and CEA

Dividend per share has a t-value of N1.70 and a beta value of N0.0771 which is statistically positive and significant at 10% level of significance. This signifies that dividend per share is significantly impacting on CEAD of Nigerian DMBs. It therefore, implies that for every proportional increase of N1.70k in dividend per share, the CEAD will increase by N0.0771.This may be attributed to the fact that banks that perform economically well are more likely associated with higher dividend generation, therefore, banks with continuous and persistent rise in dividend payout have greater opportunity and incentives to embrace CEA disclosure activities than their counterparts in the same sector or industry. Interestingly, this result is im

line with the findings of few prominent studies in the extant literatures such as (Shehu and Farouk, 2013; Ahmad, Hassan and Mohammad, 2003 and Branco and Rodrigues, 2008). However, it contradicts the findings documented by Abdulazeez and Ja'afar, (2017) amongst others.

4.4.5. Earnings Per Share and CEA

Earnings per share have a t-value of 0.95 and a beta value of 0.0107 which is statistically found to be insignificant. This signifies that earnings per share are positively but insignificantly contributing to CEAD of listed DMBs in Nigeria. It therefore, implies that for every proportional increase in earnings by N0.95, the CEAD will increase by (N0.0107). This may be as a result of the fact that banks are highly profit oriented indicating that the higher the earnings the more is committed to CEAD. Conversely, the lower the level of earnings the little or nothing is committed to CEAD by the listed DMBs in Nigeria.This result is not strange at all as it corresponds with that of Abdulazeez and Ja'afar, (2017) amongst others.

5. CONCLUSION AND RECOMMENDATIONS

The conclusion of this study is drawn from the immediate results obtained in the preceding section that firm size, firm age, and dividend have significant influence on CEA disclosures by the listed DMBs in Nigeria. The result implies that banks that are large in size, long in existence, sufficient in earnings capacity, paying more dividend regularly and highly geared are more likely to embrace CEAD. Specifically, the study has focused more on listed DMBs in Nigeria thereby, neglecting the prominent sectors of the economy such as manufacturing, oil and gas, Pharmaceuticals and other related sectors in this regards. Therefore, what left to be done is for the management of Nigerian DMBs to sit up and drive their potentials towards enlarging their bank assets, justifying the reasons for their existence and listening, strengthening their earnings generation capacity, increasing and maintaining a consistent dividend payment while ensuring a reasonable balance between their debt and equity as it has been found empirically to be a determining factor for banks to engage in CEA disclosures. Again, the regulatory authorities of the Nigerian banking sector should come up with a blue-print aimed at enforcing banks to embrace CEA disclosures as part of their corporate governance ethics to their host-communities.

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