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Corporate Attributes And Financial Disclosure Of Building Material Companies In Nigeria

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ABSTRACT:
The study focused on corporate attributes and financial disclosure of building material companies in Nigeria. An ex-post facto research design was adopted, and data was obtained from the annual reports of twelve (12) building material companies at the first-tier market of the Nigerian Stock Exchange (NSE) within the period ranging from 2013 to 2019. The data collected were analyzed using panel data multiple regression analysis. The finding revealed that Corporate attributes (firm size, profitability, leverage, firm age) have no significant effect on overall disclosure, mandatory disclosure and voluntary disclosure index of building material companies in Nigeria. The study recommends, among others, that The Financial Reporting Council of Nigeria (FRCN), the Securities Exchange Commission (SEC), the Nigerian Stock Exchange (NSE), and other regulatory agencies take appropriate actions to guarantee comprehensive disclosure in accordance with relevant international accounting disclosure rules. An improvement in the quality of information disclosure will enable consumers to make informed predictions and evaluate the company's progress, which will invariably support stock market growth. Also, to protect the interests of the various user groups, effective enforcement programs should be implemented.

KEYWORDS: *Corporate attributes, firm size, profitability, leverage, age and financial disclosure*.

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INTRODUCTION

Business entities are associated with specific corporate attributes which impact their performance either positively or negatively. These attributes also affect corporate information disclosure. Corporate attributes are attributes such as firm size, leverage, liquidity, capital, firm age, dividend, market share, off-balance sheet activities, and operating expenses, among others, that affect the operations of a firm. Firm attributes refer to firm characteristics or specific features that distinguish one company from another. Firm attributes are numerous; it could be the size, profitability level, leverage level, industry type, geographical location, nature of the business, corporate governance mechanism and any other feature that distinguishes one company from the other (Dogan, 2013). These features commonly influence company decisions and information disclosure (Dogan, 2013).

Most business entities use debt to finance their operations with the hope of improving their performance. By doing so, a company increases its leverage level because it can invest in business operations without increasing its equity. Leverage is the amount of debt used to finance firms' assets and other capital expenditures that can improve firms' performance (Lin *et al.*, 2006). Tudose (2012) posits that leverage disciplines managers, as the debt level may be used to monitor managers. Thus, increasing leverage

components of a firm's capital structure may increase the level of efficiency, thereby influencing the company's decision and information disclosure.

Company managers who are able to identify the level of leverage as a component of the firm's capital structure are rewarded by reducing the firm's cost of finance, thereby maximizing the firm's revenue (Zeitun & Tian, 2007). From creditors' points of view, debt to equity may help in understanding firms' risk management strategies and how firms determine the likelihood of default associated with firms' information disclosure.

Firm size is also expected to influence information disclosure (Dogan, 2013). Large firms may exercise economies of scale, have good knowledge of markets and are capable of employing competent managers for reliable information disclosure (Driffield *et al*., 2005). However, large firms can be less efficient than smaller ones because of the loss of control by managers over strategic and operational activities (Williamson, 1967, cited in Aluwoung and Fadio, 2019). In addition, the amount of cash a company has at hand or can generate quickly reveals how healthy the company is financially.

The issue of corporate disclosures has been widely discussed in recent years, mainly due to financial crises and the need for an effective corporate governance system. Several reasons have been advanced as to why corporate firms should disclose more information in financial reports and also capture it in theories like stakeholder theory, agency theory, legitimacy theory, and political economy theory (Choi, 1973 cited in Rotich, 2017). The agency theory implies that companies increase disclosure in order to reduce conflicts between principals (shareholders) and agents (managers). In addition, companies aiming to increase their value may do so by increased disclosure (Lobo, 2001). Several studies have mentioned that improved disclosure reduces the gap between management and outsiders, enhances the value of stock in the capital market, increases liquidity and reduces the cost of capital (Apostolos, 2009, cited in Nahiba, 2020).

The fall of Enron in the United States and other multinational corporations created the need for broader recognition of corporate transparency and disclosures (Akhtaruddin, 2005). The information corporate entities determine corporate transparency disclosed in their financial report. Accurate, relevant and reliable disclosures are seen as means of enhancing corporate image, reducing the cost of capital, and improving the marketability of shares. High-quality accounting information facilitates the acquisition of short and long-term funds and also enables management to account for the resources put in their care properly. Thus, it acts as a significant spur to the growth and development of money and capital markets, which are fundamental to the smooth running of any economy. Meek *et al*. (1995 cited in Hossain 2019) submit that the effective functioning of capital markets, however, significantly depends on the adequate flow of information between the company and its stakeholders. It is against this backdrop that this current study examines the effect of corporate attributes (firm size, profitability, leverage, firm age) on mandatory and in voluntary disclosure of companies in Nigeria.

LITERATURE REVIEW

Financial statements and information disclosure

Financial statements of Nigerian companies are regulated by the requirements of the Financial Reporting Council of Nigeria (FRCN) through the adoption of its pronouncements referred to as International Financial Reporting Standards (IFRS). The disclosure requirements of this Standard (IAS/IFRS) define the way accounting information should be presented in financial statements. Other voluntary disclosures, which are discretionary accounting information, over and above the mandatory disclosures, are also provided by management. The financial statements provide valuable information for different stakeholders. The primary objective of financial statements is to provide information about the financial position, performance, and changes in the financial position of an enterprise (Elliot & Elliot, 2005). According to Meigs and Meigs (1993), financial statements are the principal means of reporting general-purpose financial information to users. There are several users – managers, investors, suppliers, customers, lenders, employees, government and the general public - who have a vested interest in these financial statements (Glautier & Underdown, 1997; Lewis & Pendrill, 2000; Werner & Jones, 2003; Sutton, 2004; Elliot & Elliot, 2005; IASB, 2006). The accounting data presented in the financial statements must be relevant and meaningful to the user (Omolehinwa, 2000).

With the literature review in this chapter, a conceptual framework for this study is developed by exploring the relationship between the dependent variable, overall disclosure index (ODI = MDI + VDI) and

explanatory variables (company size, profitability, leverage, listing age, industry type, auditor size and multinational affiliation).

Corporate attributes and financial disclosure

Company size is the most consistently reported significant corporate attribute in previous empirical studies (Street & Bryant, 2000; Meek *et al*., 1995). According to Owusu–Asah (1998), theory, intuition, and empirical studies suggest that size positively influences mandatory disclosure practices. On the other hand, Wallace *et al.* (1994) admit that although there is overwhelming support for a positive relationship between firm size and level of disclosure, the theoretical basis is unclear. The direction can be positive or negative. On the positive, it can be argued that since large companies usually operate over vast geographical areas, deal with multiple products and have several divisional units, they are likely to have a well-built information system that enables them to track all financial and non-financial information for operational, tactical and strategic purposes. With this type of well-structured internal reporting system, the incremental costs of supplying information to external users will be minimized. This will make them disclose more information than their smaller counterparts.

Watts and Zimmerman (1990) argue that larger companies are likely to show more information in order to improve the confidence of stakeholders and to reduce political costs. Generally, large firms disclose more information than smaller ones (Meek *et al*., 1995). On the other hand, large firms are also visible and susceptible to political attacks in the form of pressure for the exercise of social responsibility, greater regulation such as price control and higher corporate taxes. Firms may react to this political action by avoiding attention, which disclosure of some significant facts could have brought to them. Therefore, large firms need to disclose more detailed information in their annual reports to avoid attention (Wallace *et al.,* 1994; Wallace & Naser, 1995).

Theoretical Framework

The positive accounting theory (PAT)

Positive Accounting Theory (PAT) came into being in the mid-1960s. It stemmed from the works of the famous theorist Fama in the 1960s, particularly the work that related to the Efficient Markets Hypothesis (Deagan, 2004). 'Positive' Accounting theory was popularized with the works of Gordan (1964). He argued that senior management was likely to manipulate the information in the financial statements in its favour by selecting accounting procedures that maximize their utility. Afterwards, several attempts were made to provide a positive theory of financial reporting (Jenson & Meckling, 1976; Watts, 1977; Watts & Zimmerman, 1978). They tried to explain why accountants do what they do and explained its effect on people and resource allocation.

'Positive' Agency theory was developed and utilized by Jensen and Meckling (1976) to analyze the relationship between the owners of the organization and the managers within the nexus of the contract. Prior to this period, Italian Professor Aldo Amaduzzi 1949 published a book entitled *Conflitto ed equilibrio di interessi nel bilancio dell'impresa*' (translated as Conflict and Equilibrium of Interests in Corporate Financial Statements), in which he analyzed financial statements and their contents as the equilibrium outcome of a conflict of interests between different corporate stakeholders. Due to the language barrier, his work was not considered mainstream (Melis, 2007).

'Positive' Agency theory is concerned with resolving the problems that can occur in agency relationships (Jensen & Meckling, 1976). They define an agency relationship as a contract under which the owners of the organization (principal(s)) engage the manager (agent) to perform some service on their behalf. Under this arrangement, the owners delegate some decision-making authority to the manager. It is presumed that both parties are utility maximizers with varying philosophies, and this could result in divergent and misaligned interests between them. Owners would want to maximize the net present value of the firm, while the managers would want to maximize utility, of which income is part.

In most cases, the agent will only sometimes act in the best interests of the principal. The agents could also hide information for selfish purposes by non-disclosure of essential facts about the organization (Barako *et al*., 2006). Owners face moral dilemmas because, most times, they cannot ascertain or evaluate the decisions made by their agents (Barako, 2007). This conflict of interest results in an "agency problem", a.k.a. "principal-agent problem", whose resolution incurs agency costs (Al-Shammari, 2005). Jensen and Meckling (1976) and Jensen (1983) acknowledged that agency problems are common to all organizations, and they

exist in all corporative efforts at each level of management in firms. This includes public organizations, private organizations, not-for-profit organizations such as schools, hospitals, and foundations, as well as governmental enterprises and bodies such as the federal, state and local governments. Jensen and Meckling (1976) focused exclusively on the positive aspects of the agency relationship as it applies to corporations. That is, it is essential to structure the contractual relationship between the owner and manager to induce the manager to make choices that will maximize the owner's welfare, given that uncertainty and imperfect monitoring exist.

Positive accounting theory has a direct bearing on the research topic. In this research, accounting disclosure presents an excellent opportunity to apply positive agency theory. This is premised on the fact that managers (agents) have better access to the company's accounting information and can communicate credible and reliable information to the market to optimize the value of the firm.

Empirical Review

Nor, Bahari *et al.* (2020) examined the impact of firm characteristics on mandatory corporate disclosures. The company has an incentive to make mandatory disclosures. One is to show that the company has better performance than other companies. This study aims to determine what characteristics of the company that influence the mandatory disclosure. This research was conducted using a sample of annual financial reports from 207 companies listed on the Indonesian Stock Exchange (IDX) in 2017 and OLS analysis techniques. The results prove that managerial ownership, foreign ownership, profitability and industry type affect the level of mandatory corporate disclosure. Consistent with initial predictions, high managerial ownership establishes management position and reduces public disclosure demands. As a result, it reduces the level of mandatory disclosure.

On the other hand, high foreign ownership encourages management to make better mandatory disclosures to meet the demands of foreign investors. A high level of profitability also encourages better mandatory disclosure to show the performance to the market in order to get investors. The demand for comprehensive reporting in the financial industry sector also encourages better mandatory disclosure.

Chandok *et al.* (2020) examined the influence of some selected corporate attributes on financial disclosures using univariate, bivariate and multivariate analysis. In the empirical model, financial disclosure (ODI) has been used as the dependent variable, and corporate attributes have been used as independent variables. The empirical result reveals that profitability, multi-listing, earning per share, internationality and international link of the audit firm have a significant influence on the financial disclosures. Contrarily, asset size, number of shareholders, year of listing, ownership structure, market category, audit fee, and leverage do not have any significant influence on the disclosure level. This provides a sign of dissimilarities in financial reporting among the companies due to corporate attributes. Consequently, the conflict of interest between shareholders and the board of directors (BOD) has been increasing gradually. In order to minimize the conflict of interest between shareholders and BOD and also to reduce the deviation of financial disclosures in the corporate annual reports, the study recommends several ways, such as examining the legal and professional frameworks of accounting and auditing continuously, setting up a Financial Reporting Council (FRC), monitoring compliance of accounting standards and corporate governance guidelines, campaigning against the danger of preparing a discretionary financial report, and finally training of BOD members on corporate governance and corporate ethics. Ahmad *et al.* (2019) examined the effect of firm characteristics on the environmental reporting practices of listed manufacturing firms in Nigeria. The population of the study comprises sixty-one (61) manufacturing firms with a sample size of 29 firms drawn using a judgmental sampling technique. Data were gathered using annual reports and accounts of the sampled firms through content analysis and analyzed using multiple regression techniques. The study found that the firm characteristics of firm size, leverage, return on assets and firm age have significant and positive effects on the environmental reporting practices of listed manufacturing firms in Nigeria. Based on the findings, the study recommends that listed manufacturing firms should be raising fresh funds by retaining a good portion of their profits for the acquisition of assets to enhance environmental reporting practices in Nigerian listed manufacturing firms.

Hossain (2019) examined the impact of firm-specific characteristics on corporate financial disclosures amongst UAE companies. A total of 153 public, joint-stock companies, listed and unlisted, were incorporated at the time of the study. Both descriptive statistics and multiple regression analyses are used to test the relationship between the characteristics of UAE firms and the extent of their financial disclosure. Eight hypotheses were established to examine the relationship between a number of explanatory variables

(namely, type of industry, listing status, return on equity, liquidity, market capitalization, foreign ownership, non-executive directors, and audit committee) and the extent of disclosure in corporate annual reports. The results of this study show that listing status, industry type, and size of firm are found to be significantly associated with the level of disclosure. This finding not only provides support for previous studies but also is of relevance to those in the UAE who want to understand corporate disclosure and should also be of interest to UAE user groups. Conclusions drawn from this study may interest policymakers and regulators who want to improve corporate financial disclosure in their countries.

Abeywardana and Panditharathna (2019) examined the extent of voluntary disclosure level and its determinants. In order to achieve these objectives, the study developed a voluntary disclosure index including 83 items and nine subcategories, which included this index analyzed by employing content analysis in the annual reports of quoted public banking and finance companies from 2012 to 2015. Furthermore, this study analyzes the selected variable to identify the determinants of voluntary disclosure level by employing panel data analysis. The study found that disclosures about general information, corporate environment, financial performance and risk management have more than 61% level. Corporate strategy, forward-looking information, human and intellectual capital, competitive environment and outlook and corporate social responsibility information had less than 45% average in 2015. There is much room for improvement in the context of voluntary disclosures. Furthermore, the study found that firm size, profitability, firm age, leverage and board independence are determinants of voluntary disclosure level and among them, firm size, profitability and firm age have a positive relationship and leverage and board independence have a negative relationship. Lundberg and Åhman (2019) examine the quality of the disclosure IAS 1 Presentation of Financial Statements, paragraphs 122 and 125 in the annual reports of Swedish publicly listed firms. A quantitative research approach is used, and the sample consists of 1,519 annual reports over 7 years. They constructed a disclosure index to assess the quality of the disclosures in Critical judgements and key sources of estimation uncertainty (IAS 1:122 and 1:125) note and categorize the annual reports into four index groups. Additionally, the number of headlines in the note is counted and sorted into three other groups, creating a headline index. Lastly, they multiply the disclosure index with the headline index to get a score, which then enables the study to distinguish and rank the quality of disclosure between firms. Further, they counted the number of words in each disclosure in each annual report. This additional quantitative data enables regression analyses, further ensuring objectivity in assessing the disclosure quality. It was found that firms in Sweden, on an average of 45%, disclose financial information in line with IAS. Sulong (2015) also reported that corporate governance disclosure (CGD) using the disclosure index by GRI G4 did not correlate with the financial performance of firms.

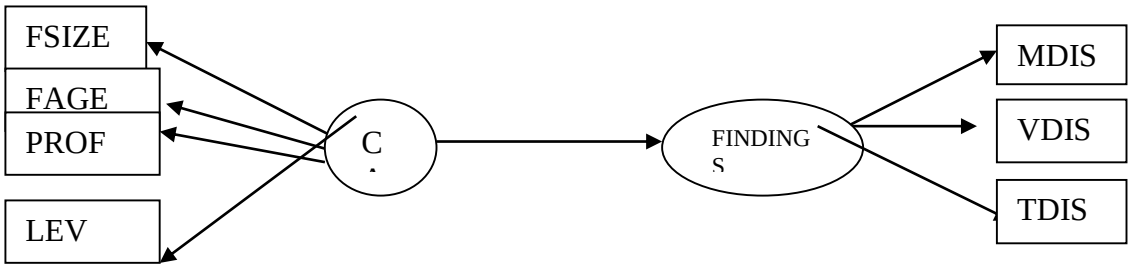
Gunawan and Lina (2019) examined the influence of mandatory disclosure and voluntary disclosure on investor reaction to either partial or simultaneous market ratios of firms. The study was conducted on 38 manufactured companies listed on the Indonesian Stock Exchange. There are five variables: mandatory disclosure, voluntary disclosure as the independent variable, cash flow operating activities (AKOp), cash flows investing activities (AKIn), and cash flows financing activities (AKDa) as the control variable, and the investor reaction was measured by using trading volume activity as the dependent variable. The result indicates that mandatory disclosure partially affects the investor reaction. Mandatory disclosure and voluntary disclosure simultaneously affect the investor's reaction. Limitations are mandatory disclosure, voluntary disclosure, cash flow operating activities (AKOp), cash flow investing activities (AKIn), and cash flow financing activities (AKDa), which are less able to measure the volume of stock trading prediction of the future. Aljifri *et al*. (2019) provided empirical evidence of the impact of firm-specific characteristics on corporate financial disclosures amongst UAE companies. A total of 153 public, joint-stock companies, listed and unlisted, were incorporated at the time of the study. Both descriptive statistics and multiple regression analyses are used to test the relationship between the characteristics of UAE firms and the extent of their financial disclosure. Eight hypotheses were established to examine the relationship between a number of explanatory variables (namely, type of industry, listing status, return on equity, liquidity, market capitalization, foreign ownership, non-executive directors, and audit committee) and the extent of disclosure in corporate annual reports. The results of this study show that listing status, industry type, and size of firm are found to be significantly associated with the level of disclosure. This finding not only provides support for previous studies but also is of relevance to those in the UAE who want to understand corporate disclosure and should also be of interest to UAE user groups. Conclusions drawn from this study may interest policymakers and regulators who want to improve corporate financial disclosure in their countries. Basuony and Mohamed (2016) examine the determinants and characteristics of voluntary Internet disclosures by listed companies in Oman. The study uses archival data from listed companies on the Muscat Securities Market (MSM). Binary Logistic Regression analysis is used to examine the determinants of Internet financial

reporting. The results of this study reveal that ROA is one of the factors that impact Internet financial reporting. Also, the results reveal that ownership concentration has a negative effect on Internet financial disclosure. The study provides insights into corporate internet disclosures in the GCC countries that will benefit all stakeholders with an interest in corporate reporting in this critical region of the world.

METHODOLOGY

This study made use of an ex-post facto research design. The population consists of all the twelve (12) building material companies in the first-tier market of the Nigerian Stock Exchange (NSE) within the period ranging from 2013 to 2019. The firms include Austin Laz, Berger Paints Plc, Beta Glass Plc, Bua Cement Plc, CAP plc, Cutix Plc, Dangote Cement plc, Greif Nigeria Plc, Lafarge Africa Plc, Meyer Plc, Portland Paints and Premier Paints.

Data was sourced from annual audited reports and IASs/ IFRSs issued by the International Accounting Standard Board (IASB), while Structural Equation Modeling (SEM) was employed in this study. The SEM captured both the measurement model and the structure model. The SEM is specified as follows:



Measurement model

$$ODI_{it} = B_0 + B_1LogFSIZE_{it} + B_2LogFAGE_{it} + B_3LogPRO_{it} + B_4LogLEV_{it} + u \text{ -- } \mathbf{(1)}$$
$$MDI_{it} = B_0 + B_1LogFSIZE_{it} + B_2LogFAGE_{it} + B_3LogPRO_{it} + B_4LogLEV_{it} + u \text{ -- } \mathbf{(2)}$$
$$VDI_{it} = B_0 + B_1LogFSIZE_{it} + B_2LogFAGE_{it} + B_3LogPRO_{it} + B_4LogLEV_{it} + u \text{ -- } \mathbf{(3)}$$

Structure model

$$\mathbf{FINDIS} = \mathbf{B_0} + \mathbf{B_1}CA + u \text{ ------- } \mathbf{(4)}$$

In the measurement model, FSIZE stands for Firm size; FAGE stands for Firm age; PROF stands for Profit after tax; LEV stands for Leverage; MDI stands for Mandatory disclosure; VDI stands for Voluntary disclosure, ODI stands for Total disclosure.

In the structure model, CA stands for Corporate Attributes, and FINDIS stands for Financial Disclosure.

Data analysis techniques

The data for the dependent and independent variables were captured from the annual audited financial statements and collated with the aid of Microsoft Excel 2010. The gathered data were scrutinized and analyzed by employing structural equation modelling using Smart PLS version 3.3.3. Univariate, bivariate and multivariate analyses were employed in exploring the secondary data. The univariate statistics of mean, median, standard deviation, minimum, and maximum were used to describe the patterns of data.

RESULT AND DISCUSSION

The data for this study is based on the variables for dependent and independent variables. Firm size (FSIZE), firm age (FAGE), leverage and return on equity (ROE) were the proxies for the independent variables (components of corporate attributes). At the same time, the overall disclosure index (ODI), voluntary disclosure index (VDI), and mandatory disclosure index (MDI) were used as proxies for the dependent variable. The data for the variables are shown in the appendix 2.

Data Analysis
Hausman Test for Hypothesis one

Table 1
Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.383448	4	0.4958

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOGFSIZE	0.046401	0.021021	0.001875	0.5578
LOGFAGE	-0.195759	-0.015317	0.013657	0.1226
LEVERAGE	-0.000374	-0.000240	0.000000	0.2380
ROE	-0.013316	-0.009563	0.000229	0.8040

The Hausman test is used to differentiate between the fixed effects model and the random effects model in panel data. In this case, the random effect is preferred under the null hypothesis due to higher efficiency, while under the alternative, fixed effects are at least as consistent and thus preferred. In this case, random effect panel data is preferable. This is so because the null hypothesis was rejected (a p-value of 0.4958 is more significant than 0.05).

Panel Data Test
Table 2
Dependent Variable: ODI
Method: Panel EGLS (Cross-section random effects)
Date: 08/14/21 Time: 11:47
Sample: 2013 2019
Periods included: 7
Cross-sections included: 12
Total panel (unbalanced) observations: 83
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.494087	0.149564	9.989632	0.0000
LOGFSIZE	0.021021	0.019849	1.059059	0.2928
LOGFAGE	-0.015317	0.056028	-0.273383	0.7853
LEVERAGE	-0.000240	0.000158	-1.516226	0.1335
ROE	-0.009563	0.011599	-0.824501	0.4122

Effects Specification	SD.	Rho
Cross-section random	0.062401	0.2846
Idiosyncratic random	0.098941	0.7154

Weighted Statistics

R-squared	0.054733	Mean dependent var	0.825834
Adjusted R-squared	0.006258	SD dependent var	0.099281
SE of regression	0.098528	Sum squared resid	0.757211
F-statistic	1.129094	Durbin-Watson stat	1.448683
Prob(F-statistic)	0.348983		

Unweighted Statistics			
R-squared	0.081163	Mean dependent var	1.600000
Sum squared resid	0.978929	Durbin-Watson stat	1.120571

The panel data results show the effect of corporate attributes on the overall disclosure of building material firms in Nigeria. The coefficient of determination R-square of 0.0547 implied that 5.7% of the sample variation in the dependent variable overall disclosure index (ODI) is explained or caused by the explanatory variables corporate attributes (FSIZE, FAGE, LEVERAGE and ROE) while 94.3% is unexplained. This remaining 94.3% could be caused by other factors or variables not built into the model. The value of the R-square is an indication of a positive relationship between the dependent variable (ODI) and independent variables (FSIZE, FAGE, LEVERAGE and ROE). The F-statistic was also used to test the overall significance of the model. The F-value of 1.129094 with a p-value of 0.348983 is an indication that the model is not statistically significant at a 5 per cent level of significance. Finally, the test of autocorrelation using Durbin-Watson shows that the Durbin-Watson value of 1.448683 falls outside the conclusive region of the Durbin-Watson partition curve. Hence, there is no sign of autocorrelation.

Hypothesis one

$H0_1$: Corporate attributes (firm size, profitability, leverage, firm age) have no significant effect on the overall disclosure index of building material companies in Nigeria.

The F-statistic is 1.129094 with a p-value of 0.348983 level of significance. Since the probability of the F statistics is more significant than a 5% level of significance, we would accept the null hypothesis, H_0 and therefore conclude that corporate attributes (firm size, profitability, leverage, firm age) have no significant effect on overall disclosure index of building material companies in Nigeria**.**

Hausman fest for Hypothesis two

Table 3

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.495057	4	0.3431

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOGFSIZE	0.019829	0.003319	0.000159	0.1907
LOGFAGE	-0.107861	-0.041184	0.001168	0.0511
LEVERAGE	-0.000057	-0.000023	0.000000	0.2349
ROE	-0.000813	-0.000993	0.000017	0.9649

The Hausman test is used to differentiate between the fixed effects model and the random effects model in panel data. In this case, the random effect is preferred under the null hypothesis due to higher efficiency, while under the alternative, fixed effects are at least as consistent and thus preferred.

In this case, random effect panel data is preferable. This is so because the null hypothesis was accepted (a p-value of 0.3431 is more significant than 0.05).

Data analysis for hypothesis two

Table 4

Dependent Variable: MDI
Method: Panel EGLS (Cross-section random effects)
Date: 08/14/21 Time: 11:41
Sample: 2013 2019
Periods included: 7
Cross-sections included: 12
Total panel (unbalanced) observations: 83
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.009459	0.065507	15.40993	0.0000
LOGFSIZE	0.003319	0.009227	0.359740	0.7200
LOGFAGE	-0.041184	0.025307	-1.627371	0.1077
LEVERAGE	-2.28E-05	5.71E-05	-0.398418	0.6914
ROE	-0.000993	0.004743	-0.209256	0.8348

Effects Specification	SD.	Rho
Cross-section random	0.037437	0.5707
Idiosyncratic random	0.032468	0.4293

Weighted Statistics			
R-squared	0.033148	Mean dependent var	0.305483
Adjusted R-squared	-0.016434	SD dependent var	0.033196
SE of regression	0.032577	Sum squared resid	0.082780
F-statistic	0.668550	Durbin-Watson stat	1.450123
Prob(F-statistic)	0.615743		

Unweighted Statistics			
R-squared	-0.069073	Mean dependent var	0.975542
Sum squared resid	0.169609	Durbin-Watson stat	0.707754

The panel data results show the effect of corporate attributes on mandatory disclosure of building material firms in Nigeria. The coefficient of determination R-square of 0.033 implied that 3.3% of the sample variation in the dependent variable mandatory disclosure index (MDI) is explained or caused by the explanatory variables corporate attributes (FSIZE, FAGE, LEVERAGE and ROE) while 96.7% is unexplained. This remaining 96.7% could be caused by other factors or variables not built into the model. The value of R-square is an indication of the positive but shallow relationship between the dependent variable (MDI) and independent variables (FSIZE, FAGE, LEVERAGE and ROE). The F-statistic was also used to test the overall significance of the model. The F-value of 0.668550 with a p-value of 0.615743 is an indication that the model is not statistically significant at a 5 per cent level of significance. Finally, the test of autocorrelation using Durbin-Watson shows that the Durbin-Watson value of 1.450123 falls outside the conclusive region of the Durbin-Watson partition curve. Hence, there is no sign of autocorrelation.

Hypothesis two

$H0_2$: Corporate attributes (firm size, profitability, leverage, firm age) have no significant effect on the mandatory disclosure index of building material companies in Nigeria.
To test the hypothesis:

The F-statistic is 0.668550 with a p-value of 0.615743 level of significance. Since the probability of the F statistics is more significant than a 5% level of significance, we would accept the null hypothesis, H_0 and therefore conclude that corporate attributes (firm size, profitability, leverage, firm age) have no significant effect on mandatory disclosure index of building material companies in Nigeria.

Hausman fest for Hypothesis three

Table 5

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.434220	4	0.8382

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOGFSIZE	0.026572	0.019660	0.001565	0.8613
LOGFAGE	-0.087899	0.003817	0.011399	0.3903
LEVERAGE	-0.000317	-0.000245	0.000000	0.4819
ROE	-0.012503	-0.010510	0.000189	0.8848

The Hausman test is used to differentiate between the fixed effects model and the random effects model in panel data. In this case, the random effect is preferred under the null hypothesis due to higher efficiency, while under the alternative, fixed effects are at least as consistent and thus preferred.

In this case, random effect panel data is preferable. This is so because the null hypothesis was accepted (a p-value of 0.8382 is greater than 0.05).

Data analysis for hypothesis three

Table 6

Dependent Variable: VDI
Method: Panel EGLS (Cross-section random effects)
Date: 08/14/21 Time: 11:37
Sample: 2013 2019
Periods included: 7
Cross-sections included: 12
Total panel (unbalanced) observations: 83
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.502533	0.140780	3.569631	0.0006
LOGFSIZE	0.019660	0.018750	1.048520	0.2976
LOGFAGE	0.003817	0.052800	0.072292	0.9426
LEVERAGE	-0.000245	0.000147	-1.670345	0.0989
ROE	-0.010510	0.010852	-0.968490	0.3358

Effects Specification	SD.	Rho
Cross-section random	0.060151	0.3044
Idiosyncratic random	0.090932	0.6956

Weighted Statistics

R-squared	0.071393	Mean dependent var	0.311025
Adjusted R-squared	0.023772	SD dependent var	0.090307
SE of regression	0.089417	Sum squared resid	0.623647
F-statistic	1.499192	Durbin-Watson stat	1.506917
Prob(F-statistic)	0.210590		
	Unweighted Statistics		
R-squared	0.132702	Mean dependent var	0.624458
Sum squared resid	0.816345	Durbin-Watson stat	1.151211

The panel data results show the effect of corporate attributes on voluntary disclosure of building material firms in Nigeria. The coefficient of determination R-square of 0.0714 implied that 7.4% of the sample variation in the dependent variable voluntary disclosure index (VDI) is explained or caused by the explanatory variables corporate attributes (FSIZE, FAGE, LEVERAGE and ROE) while 92.6% is unexplained. This remaining 92.6% could be caused by other factors or variables not built into the model. The value of R-square is an indication of the positive but very low relationship between the dependent variable (VDI) and independent variables (FSIZE, FAGE, LEVERAGE and ROE). The F-statistic was also used to test the overall significance of the model. The F-value of 1.499192 with a p-value of 0.210590 is an indication that the model is not statistically significant at a 5 per cent level of significance. Finally, the test of autocorrelation using Durbin-Watson shows that the Durbin-Watson value of 1.506917 falls outside the conclusive region of the Durbin-Watson partition curve. Hence, there is no sign of autocorrelation.

Hypothesis three

$H0_3$: Corporate attributes (firm size, profitability, leverage, firm age) have no significant effect on the voluntary disclosure index of building material companies in Nigeria.

To test the hypothesis:
The F-statistic of 1.499192 with a p-value of 0.210590 is a level of significance. Since the probability of the F statistics is greater than a 5% level of significance, we would accept the null hypothesis, H_0 and therefore conclude that corporate attributes (firm size, profitability, leverage, firm age) have no significant effect on voluntary disclosure index of building material companies in Nigeria.

Discussion on Results

The result of hypothesis one revealed that corporate attributes (firm size, profitability, leverage, firm age) have no significant effect on the overall disclosure index of building material companies in Nigeria. The decision is based on the fact that the P-value is greater than 0.05. The findings are contrary to the findings of Karim (2019), who investigated the influence of corporate attributes on disclosure by oil companies in Nigeria. The study finds that corporate attributes significantly affect the accounting disclosure by oil companies in Nigeria. Karim's (2019) findings showed that financial leverage has a significant positive effect on accounting disclosure by companies in Nigeria. Second, profitability has a significant positive effect on accounting disclosure by companies in Nigeria. Third, the study also found that firm size has a significant positive effect on accounting disclosure. Also, the findings of Aljifri *et al.* (2019) provided empirical evidence of the impact of firm-specific characteristics on corporate financial disclosures amongst UAE companies. The results of this study show that listing status, industry type, and size of firm are found to be significantly associated with the level of disclosure.

The result of hypothesis two revealed that corporate attributes (firm size, profitability, leverage, firm age) have no significant effect on the mandatory disclosure index of building material companies in Nigeria. The decision is based on the fact that the P-value is greater than 0.05. The findings are contrary to the findings of Nor *et al.* (2020), who examined the impact of firm characteristics on mandatory corporate disclosures. The results prove that managerial ownership, foreign ownership, profitability and industry type affect the level of mandatory corporate disclosure.

Results in hypothesis three revealed that corporate attributes (firm size, profitability, leverage, firm age) have no significant effect on the voluntary disclosure index of building material companies in Nigeria. The findings are consistent with the findings of Sanni *et al.* (2020), who assessed the effect of corporate

characteristics on voluntary disclosure of listed financial service firms in Nigeria for the period of 2014-2018. The study found that profitability and leverage have a negative and significant effect on the voluntary disclosure of financial service firms in Nigeria. However, a positive and significant relationship exists between firm size and voluntary disclosure. On the contrary, the findings of Uyar and Kilic (2020), investigated the influence of firm characteristics on voluntary disclosure of financial ratios in the annual reports of Turkish-listed companies using a sample of industrial firms listed in the Istanbul Stock Exchange (ISE). The results of multivariate analyses indicate that firm size, auditor size, profitability, and ownership diffusion have significant positive associations with voluntary disclosure levels of financial ratios, while leverage does not.

CONCLUSION AND RECOMMENDATIONS

The study was conducted on the effect of corporate attributes on the financial disclosure of building material companies in Nigeria. The study was carried out using secondary data. Firm size, firm age, profitability and leverage were used to measure corporate attributes, while overall disclosure, mandatory disclosure and voluntary disclosure were used to measure corporate disclosure. It was deduced from the empirical studies that the majority of work used only mandatory disclosure and voluntary disclosure as measures for corporate disclosure without considering overall disclosure. The complete variables are used in this study. Data were collected from the selected listed building material firms in Nigeria. Data collected were analyzed using panel data-based multiple regression analysis after testing some pre-estimation tests. The result of the analysis revealed that corporate attributes have a positive but insignificant effect on corporate disclosure.

Based on the findings of the study, we recommend:

(i) that the Financial Reporting Council of Nigeria(FRCN), the Securities Exchange Commission(SEC), the Nigerian Stock Exchange(NSE), and other regulatory agencies shall take appropriate actions to guarantee comprehensive disclosure in accordance with relevant international accounting disclosure rules. An improvement in the quality of information disclosure will enable consumers to make informed predictions and evaluate the company's progress, which will invariably support stock market growth.

(ii) Also, effective enforcement programs should be implemented to ensure compliance with statutory accounting standards

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(iii) Finally, smaller construction material companies should be encouraged by the government, which should promote IT growth in Nigeria. Every business should be able to afford cutting-edge technology. This will lower the cost of information and encourage the sharing of sufficient financial data.

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