Contemporary Journal of Management | *ISSN 2766-1431*
Published by ACADEMIC INK REVIEW | *https://airjournal.org/cjm*
12011 WestBrae Pkwy, Houston, TX 77031, United States
airjournals@gmail.com; enquiry@airjournal.org

Moderating Effect of Information Asymmetry on Earnings Management

[1]Obiora, Fabian C. Ph.D.; [2]Onuora, Josuha K. Ph.D and [3]Ibida, Nneka Jane-Frances

Department of Accountancy
Chukwuemeka Odimegwu University, Igbariam

Publication Process	***Date***
Accepted	***December 24th, 2021***
Published	***December 30th, 2021***

ABSTRACT

This study investigated the moderating effect information asymmetry on earnings management of selected non-financial firms quoted in Nigeria. Considering the fact that managers may have relative tendencies for larger amount of value-relevant and firm-specific information not revealed to markets, information asymmetry hence becomes high given this circumstance. The current study therefore specifically ascertained the relationship between share price volatility and discretionary accrual; determined the moderating effect of board size on the relationship between share price volatility and discretionary accrual and investigated the moderating effect of board independence on the relationship between share price volatility and discretionary accrual. The study was hinged on the 'agency theory'. The study adopted the ex-post facto research design. The population of the study included all manufacturing firms quoted on the Nigerian Exchange Group (NXG) as at 31st June 2021. The study thus relied on secondary sources of data. The Ordinary least square regression analysis was employed in validating the hypotheses. The study found a significant positive relationship between share price volatility and discretionary accrual. The study also found that board size moderates the relationship between share price volatility and discretionary accrual; and board independence moderates the relationship between share price volatility and discretionary accrual. Consequent on the findings, the study therefore recommends amongst others that a sound internal governance system should be ensured to provides an intensive monitoring package which curbs opportunistic earnings management and reduce information asymmetry.

Keywords: *Information Asymmetry, Discretionary accrual, Share Price Volatility, Earnings Management, Covid-19*

1. Introduction

Information asymmetry is a condition where one party has more information than the others (Veronica & Bachtiar, 2005). This condition often results in moral hazards and adverse selection. Financial reporting is meant to reduce information asymmetry between the company and its stakeholders providing value-relevant financial information to all users (Al-Dhamari & Ismail, 2014; Veronica & Bachtiar, 2005).

Earnings are the most significant accounting item in a financial report (Arniati, Puspita, Amin, & Pirzada, 2019; Hilkevics & Semakina, 2019; Abata & Migiro, 2016; Li, 2009). Information asymmetry is perceived as one major cause of earnings management because it permits management to manage earnings to maximize their benefits or to be indicative of their information, therefore affecting financial reporting quality (Liu & O'Farrell, 2011; Veronica & Bachtiar, 2005; Chung, Ho, & Kim, 2004; Gul, Chen, & Tsui, 2003). One key internal governance system in modern corporations is the board of directors (Al-Taleb, 2012; Tsuji, 2011).

Lack of a strong board could be attributed to the failure of many businesses (Rahman & Ali, 2006). This was evidenced in the case of Enron, HealthSouth, Tyco, Adelphia, WorldCom, African Petroleum Plc., Spring Bank, Wema Bank, Savanna Bank, Gulf Bank, Benue Cement, Cadbury Plc., among others (Sama'ila & Zaharaddeen, 2015). This study, therefore, investigates the moderating effect of board attributes such as Board size, Board independence, on the relationship between information asymmetry and earnings management on a sample of selected quoted Manufacturing firms in Nigeria.

Statement of the Problem

There is a paucity of studies on the roles of the board in earnings management. Also, the harsh economic times faced in the country may propel such earnings management, as many organizations are driven by the need to appear profitable (Francis, Olsson, & Schipper, 2008; McEwen, 2009).

Also, Numerous studies have failed to address the relationship between information asymmetry and earnings management. Some studies that addressed this were outside the regulatory environment of the current study such as (Yumei, Chunfeng & Zhenming, 2007) in China which is a developed country in the far East. Moreover, very few studies have investigated the moderating effect of board attributes on the relationship between information asymmetry and earnings management. These studies were also outside the industrial/regional scope of the current study (Yasser & Mamun, 2016; Abata & Migiro, 2016; Pyung-kyung & Tae-nyun, 2015). It is against this background that the study intends to measure the moderating effect of board attributes on the relationship between information asymmetry and earnings management of selected non-financial firms quoted in Nigeria.

The inconsistent and often contradictory results of numerous studies ranging from positive to negative relationships may be due to the usage of widely different research methodologies, sample composition (Mohammady, 2010; Li, 2009). There is a need to explore other sample compositions and methodologies such as ordinary least square regression (OLS) etc.

Therefore, these diverse views and conflicting results create a knowledge gap in the study; and it is against this background that the study intends to measure the moderating effect of board attributes on the relationship between information asymmetry and earnings management of selected non-financial firms quoted in Nigeria for the period 2011-2020 using Ordinary Least Square Regression analysis methodology.

Certainly, the issue of the relationship between share price volatility driven by information asymmetry and discretionary accrual resulting in earnings management is current and more research is necessary, that is why this work has sought to fill proxy gaps by specifically using Tobin's Q to measure Share Price volatility as independent, while Board Size and Board Independence, measure for board characteristics which are the moderating variables while Return on Assets (ROA), leverage, Firm Size, and Firm Age are control variables. The dependent variable Discretionary Accrual was obtained using the Jones model. A sector and the period gap would also be filled since this work shall cover the non-financial services sector comprising of selected consumer goods, industrial goods, and health care quoted firms in Nigeria Stock Exchange for ten years (2011-2020). Indeed, this study sought to ascertain the moderating effect of board attributes on the relationship between information asymmetry and earnings management of selected consumer goods, industrial goods, and health care quoted firms in Nigeria. Test the relationship between share price volatility and discretionary accrual. Then determine the moderating effect of board size on the relationship between share price volatility and discretionary accrual on the one hand and investigate the moderating effect of board independence on the relationship between share price volatility and discretionary accrual on the other.

Objective of the Study

The main objective of the study is to ascertain the moderating effect of board attributes on the relationship between information asymmetry and earnings management of selected consumer goods, industrial goods, and health care quoted firms in Nigeria. Specifically, the study intends to:

1. Ascertain the relationship between share price volatility and discretionary accrual.
2. Determine the moderating effect of board size on the relationship between share price volatility and discretionary accrual.
3. Investigate the moderating effect of board independence on the relationship between share price volatility and discretionary accrual.

Research Questions

The following research questions would guide the study:

1. What is the relationship between share price volatility and discretionary accrual?
2. Is there a moderating effect of board size on the relationship between share price volatility and discretionary accrual?
3. Is there a moderating effect of board independence on the relationship between share price volatility and discretionary accrual?

Statement of Hypotheses

The following hypotheses were formulated to guide the study; they are stated in the null form below:

1. There is no significant positive relationship between share price volatility and discretionary accrual.
2. Board size does not moderate the relationship between share price volatility and discretionary accrual.
3. Board independence does not moderate the relationship between share price volatility and discretionary accrual.

Significance of the Study

This study contributes to the following areas:

1. **Management/Board of Manufacturing Firms:** Management of manufacturing firms would benefit from the findings of this study by understanding how corporate board attributes affect the earnings quality of the company. It assists the management of corporations in forming their boards by using structures that convey greater credibility to investors.
2. **Regulators and Public:** Also, to benefit from the findings of this study are regulators, shareholders, activists, and the general public in general.
3. **Body of Knowledge:** This study also contributes to the literature on information asymmetry and earnings management from a developing economy.

Scope of the Study

The study seeks to address the relationship between board attributes and voluntary social disclosure of quoted industrial goods, consumer goods, and health sector manufacturing firms. The study shall focus only on information obtainable from the annual financial statements of the companies; secondary data were obtained from the annual financial statements of the companies as downloaded from their various individual websites. To ensure consistency, the study made use of financial reports from 2011 to 2020 financial year since it is just the immediate past ten years under review. It is worthy of note that the period under review had financial statements prepared in IFRS (International Financial Reporting Council) format as the Nigerian Accounting Standards Board (NASB) was directed by the Nigerian Federal Executive Council that public listed entities and significant public interest entities adopt IFRS effective 1st January, 2012. It is believed that this period would be current and give valid contemporary inferential reports.

2. Review of Related Literature

2.1 Conceptual Framework

Information Asymmetry

Information asymmetry represents the gap between the amounts of information held by management and that held by market participants (Fields, Lys, & Vincent, 2001). Information asymmetry between agents and principals gives an opportunity to managers to become involved in opportunistic behaviour (i.e., earnings management and flawed disclosure) that potentially increases a firm's agency cost (Al Farooque, Suyono, & Rosita, 2014). Information asymmetry is high when managers have a relatively larger amount of value-relevant and firm-specific information not revealed to markets (Krishnaswami & Subramaniam, 1999). In other words, information asymmetry between management and shareholders exists when managers have more or better timely information about their firm's operations than current and potential shareholders (Kang & Kim, 2014).

Conflict of interest occurs when an agent acts to fulfill their interest when making economic decisions while ignoring the implications for shareholders. It is based on the idea that managers who are not owners will not watch over the affairs of a firm as diligently as the owners (Chrisman, Chua, & Litz, 2004). Earnings management may occur more easily in the case of a higher level of information asymmetry since managers can have more opportunities to satisfy their interests at the shareholders' expense in this situation.

Earnings Management

Earnings management is a mechanism used by corporate managers to intentionally alter financial statements results, i.e., income statement, statement of financial position, and statement of cash flows, in some desired amount and/or some desired direction with the view to systematically misrepresent the true income and assets to mislead some stakeholders or to influence contractual outcomes (Otuya, Donwa, & Egware, 2017). Ronen and Yaari (2008) defined earnings management as "a collection of managerial decisions that result in not reporting the true short-term, value-maximizing earnings as known to management".

Studies have classified earnings management objectives into two categories, namely: beneficial and opportunistic objectives (Matoussi & Kolsi, 2006). A situation where earnings management improves the information value of earnings by conveying private information to the shareholders and the other stakeholders is termed beneficial whereas, opportunistic earnings management emanates from capitalizing on the gaps in the accounting standards intended to deceive stakeholders (Algharaballi, 2013; Jiraporn, Miller, Yoon, & Kim, 2008; Siregar & Utama, 2008).

Board Attributes

According to the Association of Chartered Certified Accountants (ACCA), the most prominent group of actors in corporate governance are the company's directors. Board characteristics, such as the distinction between the chief executive officer (CEO) and the chairman, and the percentage of non-executive (outside directors) in the board can be seen as among the internal mechanisms of corporate governance (Mousa, Desoky, & Sanusi, 2012). According to Kumar and Singh (2010), the primary role of the board of directors is that of trusteeship to protect and enhance shareholders' value through strategic supervision. They provide direction and exercise appropriate control to ensure that the company is managed in a manner that fulfills stakeholders' aspirations and societal expectations.

According to Alves (2011), the ability of managers to manage an organization's reported results is limited by the effectiveness of internal controls, including that of boards. Anderson, Mansi, and Reeb (2004) argue that boards of directors are responsible for monitoring, evaluating, and disciplining the management of a company, and oversight of financial reporting is one of the most important responsibilities of the board from the point of view of creditors.

Board Size

Board size as used in several studies represents the total number of directors sitting on the board of a firm. According to Majeed, Aziz, and Saleem (2015), the number of directors sitting on a board may influence the level of disclosure and transparency in a corporation. Directors in performing their monitoring function scrutinize management to "guard against harmful behaviour, ranging from shirking to fraud" (Linck, Netter, & Yang, 2008).

Studies have shown mixed findings on the relationship between board size and earnings management. Ching, Firth, and Rui (2006) reported a positive relationship between board size and earnings management, whereas; Xie, Davidson, and DaDalt (2003) reported a negative relationship. Other studies have shown that smaller boards are positively related to a high value of the company (De Andres, Azofra, & Lopez, 2005; Mak & Kusnadi, 2005; Eisenberg, Sundgren, & Wells, 1998; Yermack, 1996; Jensen, 1993). Board efficiency involves the issue of increases in coalition costs between members and the fact that boards with more members have greater difficulty finding time to discuss and reach consensus on issues pertaining to the company's organizational structure (Firth, Fung, &Rui, 2006).

Board Independence

An important factor that may affect the ability of the board to monitor the firm's managers is its composition and the percentage of independent directors on the board (Fields & Keys, 2003). Board independence refers to the extent to which a board is comprised of non-executive directors who have no relationship with the firm beyond the role of director (Davidson, Goodwin-Stewart, & Kent, 2005).

Studies document mixed findings on the relationship between board independence and earnings management (Reyna, 2012). Other studies have shown that board independence is associated with high quality of accounting information (Abdoli & Royaee, 2012; Dimitropoulos & Asteriou, 2010; Marra, Mazzola, & Prencipe, 2009; Ahmed & Duellman, 2007; Firth, Fung, & Rui, 2007; Beekes, Pope, & Young, 2004).

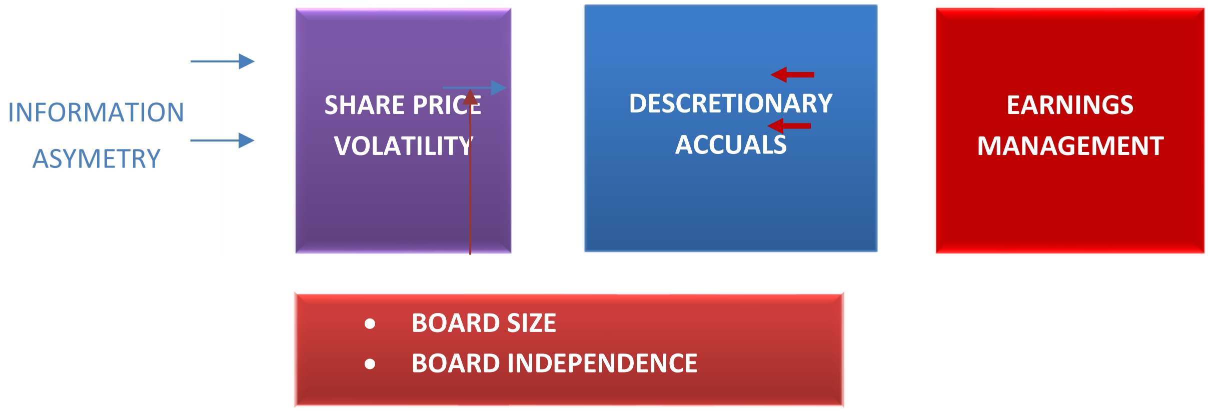

Figure 1: Schematic representation of the conceptual framework
Source: Authors conceptualization, 2021

2.2 Theoretical Framework

Agency Theory

The current study is anchored on the "*agency theory*". The Agency theory paradigm was first formulated by Stephen Ross in the '70s (Ross, 1973). It was first associated with agency costs by Jensen and Meckling (Shapiro, 2005; Jensen & Meckling, 1976).

The justification for this theory is premised on the fact that the board has two functions: the monitoring and service function. The monitoring function is mainly analyzed from the agency perspective given the potential for conflict of interest arising from the separation of ownership and control (Fama & Jensen, 1983; Jensen & Meckling, 1976).

The theory assumes that the interest of Principals and agents diverge and both seek to maximize their interests. Shareholders are interested in maximizing wealth while managers may succumb to self-interest and unless restricted from doing otherwise, would be interested in protecting and enhancing their pay and perks. Also, the theory assumes that managers have better access to information about an entity's position vis-à-vis shareholders. This implies that agents have private information to which the principal cannot gain access without cost.

Agency theory tries to resolve two problems that usually occur when one party (the principal) delegates work to another (agent). The first is the conflict of goals between the principal and agent and the costs associated with the minimization of such discrepancy; and, secondly, is the problem of sharing risk when the risk preference of the principal and agent differs (Eisenhardt, 1989).

The information asymmetry problem embedded in the principal-agency relationship may result in moral hazard and adverse selection and precludes cooperative parties from the benefits of sharing risks (Li, 2014). Agency theory thus serves as the underlying rationale for corporate law as well as principles and regulations of corporate governance (Li, 2014).

2.3 Empirical Review

The following empirical studies were reviewed and presented below:

Wijaya, Pirzada, and Fanady (2020) in their work, determinants of earnings management, sought to discover the influence of firm size, firm leverage, firm age, audit quality, female directors, profitability, the board size, audit committee size, and board meeting on earnings management of 127 non-financial companies listed in Indonesia Stock exchange for the period 2014-2017. The results revealed that firm leverage, audit quality, and profitability have an effect on earnings management for stable financial results. Meanwhile, firm size, firm age, female director, the board size, audit committee size, and board meeting do not have an effect on earnings management in non-financial companies listed on the Indonesian Stock Exchange.

Yasser and Mamun (2016) explored the relationship between board-leadership structure and earnings management in Asia-Pacific countries. They studied 110 firms from Australia, Malaysia, The Philippines, and Pakistan, for the period 2011 to 2013. The analysis revealed that board leadership structure is not associated with firm performance and financial reporting quality. Female CEOs impacted negatively on firm performance in Malaysia, The Philippines, and Pakistan. Large boards provided a healthier reporting quality in Australia and Malaysia.

Meanwhile, Abata and Migiro (2016) investigated the effect of corporate governance variables on earnings management among selected listed firms from the manufacturing and banking sector. The sample comprised 24 listed companies from the 2 sectors, from 2008 to 2013. They used panel data analysis. The results revealed that board independence, audit committee independence, and audit committee size are insignificantly positively correlated with earnings management. Board size is insignificantly negatively correlated with earnings management while ownership structure is insignificantly negatively correlated with earnings management. Audit quality is positively correlated with earnings management, though not statistically significant.

Whereas, Pyung-kyung and Tae-nyun (2015) studied the relationship between information asymmetry and earnings management. Information asymmetry was proxied using adjusted trading volume, and earnings management was proxied using unexpected core earnings. They used data for firms traded in NYSE, AMEX, or NASDAQ from 1993 and 2013 fiscal years. The study finds that the level of adjusted trading volume is positively and significantly associated with the magnitude of unexpected core earnings. The robustness test uses residual volatility of stock returns as a proxy for information asymmetry; also finds that unexpected core earnings positively relate to the residual volatility of stock returns.

Smit (2015) investigated the impact of board monitoring role on the quality of reported earnings on a sample of firms listed on the Alternative Exchange (AltX). The period of the study is from 2008 – 2011. They used regression to examine the relationship. The study finds no evidence that boards and non-executive directors of small and medium-sized companies are inclined to adopt conservative accounting practices that will result in the asymmetric timeliness of earnings.

Also, Sama'ila and Zaharaddeen (2015) examined the impact of board structure on earnings management of listed cement companies in Nigeria. The study period was ten years (2004-2013). Data were extracted from annual reports and accounts of the sampled firms. They used regression to test the hypotheses. The study finds that board size has a positive and significant effect on earnings management, while board independence had a negative and significant effect. However, female directors have a negative but insignificant effect on earnings management.

Egbunike, Ezelibe, and Aroh (2015) explored the influence of corporate governance on earnings management practices of Nigerian quoted companies. The corporate governance variables were board size, board independence, and strength of audit committee, while earnings management was measured using the Jones Model. They used secondary data from annual financial reports of the companies chosen using the purposive sampling technique from 2011-2014. They used the regression technique to analyze the data. The study finds a significant coefficient for board size, a non-significant coefficient for board independence, and a significant coefficient for audit committee strength.

Abdulmalik, Ahmad, and Aliyu (2015) examined the relationship between board monitoring mechanisms (proportion of independent directors, grey directors), continuous training programmes, outsourcing of internal audit function, and financial reporting quality in Malaysia. They studied a sample of top 100 firms identified by the Malaysia Shareholder Watchdog Group (MSWG) between the periods 2010-2013. A feasible GLS (FGLS) regression estimation method was used to test the relationship. The result revealed that the proportion of grey directors is positively and significantly related to both accrual and real earnings management, the proportion of independent directors is negative and not significant. Board continuous training and outsourcing of internal audit function were both negatively and significantly related to the accrual and real earnings management.

2.4 Gaps in Knowledge

The harsh economic times faced in the country may propel such earnings management, as many organizations are driven by the need to appear profitable. The current study, therefore, identified the following gaps:

There is a paucity of studies on the roles of the board on earnings management in Nigeria and numerous studies have shown mixed findings on the relationship between information asymmetry and earnings management. Studies have shown mixed findings on the relationship between board attributes and earnings management.

Also, empirical studies which address ownership characteristics and earnings management are inconclusive.

Studies have failed to address the relationship between information asymmetry and earnings management and moreover have not investigated the moderating effect of board attributes on the relationship between information asymmetry and earnings management. The current study, therefore, intends to breach the lacuna identified.

3. Methodology

Research Design

The study made use of ex post facto research design. Ex-post facto research is a systematic empirical inquiry in which the scientist does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulated (Salkind, 2010).

Population of the Study

The population of the study is made up of Manufacturing Companies quoted on the Nigerian Exchange Group as of 1st January 2021. The manufacturing sector was chosen because it remains the most powerful engine for the economic structure of countries (Jide, 2010). The studied companies are classified under Health care, consumer goods, and, industrial goods. (NXG, 2021).

Sample Size of the Study

The sample for the study was drawn from the quoted health sector, consumer goods, and industrial goods manufacturing firms on the Nigerian Stock Exchange. The study used the purposive sampling technique to ensure that the firms have homogenous properties. The companies included in the sample are shown in (Appendix I).

Sources of Data

The study used data that were extracted from the Annual Reports of the selected manufacturing companies. The reliability of such data is in line with Part X1, Chapter One of the Companies and Allied Matters Decree 1990, which requires companies to keep and produce accounts that render a true and fair view of the state of affairs of the company.

Methods of Data Analysis

Ordinary Least Square (OLS) regression was used to test the moderating effect of board attributes on the relationship between information asymmetry and earnings management. Prior studies have shown that Ordinary Least Square (OLS) regression is a favourable technique in testing moderating effects (Abdulmalik, Ahmad, & Aliyu 2015).

Model Specification

$$DA_{(i,t)} = \alpha + SPV_{(i,t)} + Size_{(i,t)} + LEV_{(i,t)} + ROA_{(i,t)} + Age_{(i,t)} + \mu \ldots\ldots (1)$$

$$DA_{(i,t)} = \alpha + SPV_{(i,t)} + BS_{(i,t)} + SPV_{(i,t)}{*}BS_{(i,t)} + Size_{(i,t)} + LEV_{(i,t)} + ROA_{(i,t)} + Age_{(i,t)} + \mu \ldots\ldots (2)$$

$$DA_{(i,t)} = \alpha + SPV_{(i,t)} + BI_{(i,t)} + SPV_{(i,t)}{*}BI_{(i,t)} + Size_{(i,t)} + LEV_{(i,t)} + ROA_{(i,t)} + Age_{(i,t)} + \mu \ldots\ldots (3)$$

The composite model is specified below as follows:

The model shows the effect of information asymmetry and board attributes on earnings management. Moreover, it also specifies the moderating effect of board attributes on the relationship between information asymmetry and earnings management;

$DA_{(i,t)} = \alpha + SPV_{(i,t)} + BS_{(i,t)} + BI_{(i,t)} + SPV_{(i,t)} {*}BS_{(i,t)} + SPV_{(i,t)} {*}BI_{(i,t)} + Size_{(i,t)} + LEV_{(i,t)} + ROA_{(i,t)} + Age_{(i,t)} + \mu$……………………..(4)

Where:

DA	=	Discretionary Accrual
SPV	=	Share price volatility
BS	=	Board Size
BI	=	Board Independence
α	=	Constant
µ	=	error term

Table 3.1 Variable description and measurement

Variable	*Proxy*	*Description*
Share price volatility	SPV	Share price volatility is used as proxy for information asymmetry is measured by either share price volatility or Tobin's Q. The study used Tobin's Q as proxy for information asymmetry (Cormier, Ledoux, Magnan, & Aerts, 2010).
		Dependent Variable
Discretionary Accrual	DA	Discretionary accrual (DA) is used as proxy for earnings management. DA is estimated using the cross-sectional variation of the modified Jones model proposed by Dechow, Sloan, and Sweeney (1995),
Control Variables		
Firm Size	Size	Log of average assets
Gearing	Leverage (LEV)	Total long-term liabilities divided by total asset
Profitability	ROA	Returns on asset is measured using earnings after interest and tax divided by total assets for the period.
Firm Age	Age	The number of years since initial listing.
		Moderating Variables
Board Size	BS	The number of Directors sitting in the Board for a particular period.
Board Independence	BI	Board independence is measured as the ratio of non-executive independent directors to total number of directors sitting on the board.

Source: Researchers Compilation, 2021.

The Modified Jones Model

The study used the cash-flow method to evaluate total accruals, total accruals (TAC) is defined as the difference between net income before extra items (NI) and cash flow from operating activities (OCF) as stated below in the equation:

$TAC_{ijt} = NI_{ijt} - CFO_{ijt}$ … … … …………………… … … ……………….. (5)

$TAC/A_{it-1} = \beta_0 + \beta_1 (\Delta REV - \Delta REC)/A_{it-1} + \beta_2 PPE_t /A_{it-1} + e_{it}$ ……………….. (6)

Where:

Ait-1 = total asset of firm i at the beginning of year t.

ΔREVit = change in revenues for firm i in the year t

ΔRECit = change in receivables for firm i in the year t

PPEit = level of the gross property, plant, and equipment for firm i in the year t

εit = error term for firm i in year t.

Based on the estimates for the regression parameters (β_0, β_1, β_2), each firm's non-discretionary accruals (NDAC)

$NDAC_{it} = \beta_0 + \beta_1 (\Delta REV - \Delta REC)/A_{it-1} + \beta_2 PPE_t /A_{it-1}$……………… (7)

Thereafter DACit is estimated according to the following equation:

$DACit = TAC/A_{it-1} - NDAC_{it}$

4. Data Presentation and Analysis

This section focuses on the presentation, analysis, and discussion of findings based on the analysis of the effect of information asymmetry, board attributes on earnings management of manufacturing firms in Nigeria. The section is organized into four subsections; section 4.1 presents the univariate properties of the data; Section 4.2 presents the results of the hypotheses test; and, 4.3 discusses the findings.

Descriptive Statistics

The univariate properties of the data, i.e., mean, median, minimum, maximum, standard deviation, skewness, and kurtosis.

Table 4.1 Descriptive Statistics of Independent and Control Variables

	IA	SIZE	LEVERAGE	ROA	FIRM_AGE
Mean	2.047864	10.12484	2.268357	0.501995	43.89122
Median	0.465589	10.01274	0.257762	0.028154	48.50000
Maximum	234.2327	12.27042	57.00802	110.9889	117.0000
Minimum	0.001716	7.835545	-0.108990	-3.021770	2.000000
Std. Dev.	11.46133	0.913751	7.121884	5.638072	22.41119
Skewness	16.55643	-0.003395	4.655146	16.47813	0.294044
Kurtosis	325.1460	2.393466	26.24489	299.4994	3.281895
Jarque-Bera	2289760.	8.033138	13689.65	1943123.	9.286002
Probability	0.000000	0.018015	0.000000	0.000000	0.009629
Sum	1073.081	5305.418	1188.619	263.0456	22999.00
Sum Sq. Dev.	68702.31	436.6740	26527.20	16625.05	262682.8
Observations	**524**	**524**	**524**	**524**	**524**

Source: E-Views 9

Table 4.1 revealed the statistical measure of dispersion and central tendencies of the independent and control variables employed in the study with a total number of 524 observations. The table also shows the probability and level of skewness of the data.

Test of Hypothesis

Test of Hypothesis one

H_{01}: There is no significant positive relationship between share price volatility and discretionary accrual.

Table 4.2 Coefficients of model one

Dependent Variable: DA
Method: Least Squares
Date: 11/15/21 Time: 20:15
Sample: 2011 2540
Included observations: 522

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.286253	15.38654	0.018604	0.9852
IA	-0.982249	0.119911	-8.191471	0.0000
Size	-0.656596	1.544194	-0.425203	0.6709
Leverage	0.033920	0.195295	0.173688	0.8622
Roa	-0.365711	0.240996	-1.517497	0.1298
Firm age	0.111195	0.061210	1.816601	0.0699
R-squared	0.141042	Mean dependent var		-3.588816
Adjusted R-squared	0.132719	S.D. dependent var		32.38885
S.E. of regression	30.16306	Akaike info criterion		9.662541
Sum squared resid	469462.2	Schwarz criterion		9.711480
Log-likelihood	-2515.923	Hannan-Quinn criter.		9.681709
F-statistic	16.94556	Durbin-Watson stat		1.538117
Prob(F-statistic)	0.000000			

Source: *E-Views 9*

The Ordinary Least Square (OLS) regression included 522 observations and was conducted to test if there is a significant positive relationship between share price volatility and discretionary accruals. The results of the OLS regression indicated the predictor explained 14.10% of the variance (R^2=.1410, F (16.9456). Also, on a 5% level of significance, the result shows a p = 0.0000; i.e., <.05). Hence, we reject our null hypothesis and accept the alternate hypothesis. Thus, there is a significant but negative relationship between share price volatility and discretionary accruals.

Test of Hypothesis two

H_1: Board size does not moderate the relationship between share price volatility and discretionary accruals.

Table 4.3 Coefficients of model two

Dependent Variable: DA
Method: Least Squares
Date: 11/15/21 Time: 20:18
Sample: 2011 2540
Included observations: 522

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-17.87796	15.91225	-1.123535	0.2617
IA	-7.970455	1.600063	-4.981338	0.0000
Board__size	-0.352175	0.564225	-0.624175	0.5328
IA*board__size	1.152709	0.263082	4.381562	0.0000
Size	1.211377	1.728167	0.700961	0.4836
Leverage	0.141032	0.193708	0.728065	0.4669
Roa	-0.289678	0.237571	-1.219329	0.2233
Firm age	0.099489	0.060741	1.637908	0.1021
R-squared	0.173139	Mean dependent var		-3.588816
Adjusted R-squared	0.161878	S.D. dependent var		32.38885
S.E. of regression	29.65166	Akaike info criterion		9.632120
Sum squared resid	451919.5	Schwarz criterion		9.697372
Log-likelihood	-2505.983	Hannan-Quinn criter.		9.657678

F-statistic	15.37545	Durbin-Watson stat	1.561131
Prob(F-statistic)	0.000000		

Source: E-Views 9

The Ordinary Least Square (OLS) regression included 522 observations and was conducted to test if board size moderates the relationship between share price volatility and discretionary accruals. The results of the OLS regression indicated the predictor explained 17.31% of the variance (R^2=.1731, F (15.375). Also, on a 5% level of significance, the result shows a p = 0.0000; i.e., <.05). Hence, we reject our null hypothesis and accept the alternate hypothesis. Thus, Board size moderates the relationship between share price volatility and discretionary accruals.

Test of Hypothesis three

H_1: Board independence does not moderate the relationship between share price volatility and discretionary accruals.

Table 4.4 Coefficients of model three

Dependent Variable: DA				
Method: Least Squares				
Sample: 2011 2540				
Included observations: 522				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-24.12675	17.93532	-1.345208	0.1792
IA	9.228809	2.242504	4.115404	0.0000
Bind	12.69318	30.36966	0.417956	0.6762
IA*Bind	-61.73920	13.54362	-4.558546	0.0000
Size	1.341927	1.630732	0.822898	0.4109
Leverage	0.138715	0.192929	0.718991	0.4725
Roa	-0.277789	0.237266	-1.170788	0.2422
Firm_age	0.112130	0.060375	1.857213	0.0639
R-squared	0.176379	Mean dependent var		-3.588816
Adjusted R-squared	0.165162	S.D. dependent var		32.38885
S.E. of regression	29.59351	Akaike info criterion		9.628194
Sum squared resid	450148.7	Schwarz criterion		9.693446
Log-likelihood	-2504.959	Hannan-Quinn criteria		9.653751
F-statistic	15.72479	Durbin-Watson stat		1.561293
Prob(F-statistic)	0.000000			

Source: E-***views 9.0***

Table 8 shows the Ordinary Least Square (OLS) regression with 522 observations and was conducted to test if board independence moderates the relationship between share price volatility and discretionary accruals. The results of the OLS regression indicated the predictor explained 17.31% of the variance (R^2=.1763, F (15.724). Also, for the variable of interest and on a 5% level of significance, the result shows a probability value = 0.0000; i.e., <.05). Hence, we reject our null hypothesis and accept the alternate hypothesis. Thus, Board independence moderates the relationship between share price volatility and discretionary accruals

Discussion of Findings

The first hypothesis revealed that the relationship between share price volatility and discretionary accruals was negative and statistically significant. This is slightly in line with the study by Pyung-kyung and Tae-nyun (2015) on a sample of firms traded on the NYSE, AMEX, or NASDAQ when they found that level of adjusted trading volume was positively and significantly associated with the magnitude of unexpected core earnings. Contrary to this is the results were the result of Al Farooque, Suyono, and Rosita (2014) on a sample of manufacturing firms finds that discretionary accruals have a significant negative influence on market return. Another interesting study was conducted by Ajina, Sougne, and Laouiti (2013) in France that revealed a negative relationship between share price volatility, the proportion of independent directors, and board size.

The empirical results revealed that board size positively moderates the relationship between share price volatility and discretionary accruals. The direction of the relationship of the moderating variable (IA*BOARD__SIZE) goes slightly contrary to the study by Abata and Migiro (2016) in Nigeria; on selected firms from the manufacturing and banking sector that showed a negative insignificant result between board size and discretionary accruals. In line with the findings was the study by Reyna (2012) in Mexico who revealed showed a positive relationship between the board of directors and discretionary accruals in the presence of profitable investment projects. This relationship is reversed (negative) when firms have no profitable investment projects.

The sign and direction of the board attribute (board size) were negative and significant. This is in opposition with the sign of the moderating variable (IA*BOARD__SIZE). According to AL-Dhamari and Ismail (2014), investors do not perceive board size as a good indicator of earnings quality. However, the study by Rahman and Ali (2006) in Malaysia finds a positive relationship between discretionary accruals and board size.

The current study also revealed that board independence moderates the relationship between share price volatility and discretionary accruals. According to Alves (2014), independent board members improve earnings quality by reducing discretionary accruals. The sign of the moderating variable (IA*BIND) was negative and significant. This is contrary to the study by Abata and Migiro (2016) that revealed a positive not insignificant effect of board independence on discretionary accruals.

Also, Chaharsoughi and Rahman (2013) in Iran, showed that there was an insignificant positive relationship between the independent board of directors and earnings quality. While, Holtz and Neto (2014) in Brazil specifically showed that board independence positively affects the quality of reported accounting information, especially as regards the relevance of equity and earnings informativeness.

The effect of board independence may become more pronounced following the mandatory adoption of IFRS. The study by Marra, Mazzola, and Prencipe (2011) finds that board independence plays an effective role in constraining discretionary accruals following the mandatory adoption of IFRS. Davidson, Goodwin-Stewart, and Kent (2005) in Australia showed evidence that firms with non-executive directors were significantly associated with a lower likelihood of discretionary accruals.

The sign and direction of the board attribute (board independence) were, however, positive and significant. Hence, the study by Egbunike, Ezelibe, and Aroh (2015) on a sample of quoted firms in Nigeria reported a non-significant coefficient for board independence. Abdulmalik, Ahmad, and Aliyu (2015) on a sample of top 100 firms in Malaysia found that the proportion of independent directors was negative but not significant.

It is worth considering that the moderating effect of corporate governance on the association between information asymmetry and earnings management has been affected by the COVID-19 outbreak since previous findings of the current study have shown that firms have attempted different earnings management practices in the manufacturing sector without the pandemic severities.

The COVID-19 outbreak has exerted varied impacts on the financial market (Ruiz, Estrada, Koutronas, Lee, 2020). Given the scenario and firm behavior during financial crises, the firms are expected to manipulate their reported earnings to respond to the current negative market environment (Choi, Kim, Lee, 2011).

Prior studies found the non-negligible fact that firms manage earnings by manipulating various operational, investment, financial activities (Xu, Taylor, Dugan, 2007) and discretionary expenditures (Roychowdhury, 2006). For instance, Roychowdhury (2006) has examined the manipulation of operational and investment activities, particularly the manipulation of discretionary expenditures. Studies have also examined firms' manipulation of production, inventory, and sales to smooth earnings and meet earnings targets (Roychowdhury, 2006). To this end, the COVID-19 had twisted the judgment of managers to rely heavily on earnings management in financial reporting (Ruiz, Estrada, Koutronas, Lee, 2020).

Therefore, and judging from the industrial goods, consumer goods, and health sector point of view, the COVID-19 has significantly affected Nigerian listed manufacturing firms' economic activities. Given that earnings management focuses on manipulating cash flows through operational, investment, and financial activities throughout the financial year, earnings manipulation is hence easier to slide into given the difficulty posed by the COVID-19 pandemic which severely affected the country's economy.

5. Summary of Findings, Conclusion, and Recommendations

5.1 Summary of Findings

The empirical findings from the study are briefly summarised and stated below as follows:

1. The relationship between share price volatility and discretionary accruals is negative and statistically significant (p<.05);
2. Board size moderates the relationship between share price volatility and discretionary accrual (p<.05). The coefficient of the moderator variable was negative;
3. Board independence moderates the relationship between share price volatility and discretionary accrual (p<.05). The coefficient of the moderator variable was positive.

5.2 Conclusion

The study sought to examine the effect of board attributes on the relationship between information asymmetry and earnings management of selected quoted manufacturing firms in Nigeria. Both concepts have received increased attention in the business, finance, and governance literature. The concepts were reviewed in the literature and several empirical findings globally and locally were also presented. The results however showed mixed support for the independent variables of interest. Studies have examined the effect of these attributes on earnings smoothing, earnings quality as a measure of earnings management. The current study however explored the relationship of these varieties on discretionary accrual. Thus, in conclusion, Board attributes moderate the relationship between information asymmetry and earnings management in Nigeria.

5.3 Recommendations

The study makes the following recommendations:

1. **A sound and cautious internal governance system should be ensured:** Information asymmetry should be tackled with caution as Information asymmetry is perceived as one major cause of earnings management. It is however recommended that a sound internal governance system should be ensured to provide an intensive monitoring package that curbs opportunistic earnings management and reduce information asymmetry.
2. **Board quality should be the focus of shareholders not quantity:** Empirical results from both developed and developing countries present mixed findings on the subject of board size and performance. The current study however recommends that a balance be stricken between the size and qualification of members sitting on the board. Board size moderates the relationship between information asymmetry and earnings management thus individual proficiency of members should be considered as persons who are responsible for steering the affairs of the corporation.
3. **Shareholders should appoint more Independent Non-Executive Directors:** Strengthening the function of independent non-executive directors to enhance decision-input on discretionary accrual policies. Boards are encouraged to balance the distribution of and Independent non-executive directors sitting on the board. Independent non-executive directors have been shown to demonstrate a stronger commitment to business ethics and shareholders' interests.

5.4 Contribution to Knowledge

The present study presents empirical evidence of the effect of board attributes on the relationship between information asymmetry and earnings management of selected quoted manufacturing firms in Nigeria which is a developing country. This study makes the following important contributions. First, it considers Information asymmetry from Tobin's Q point of view. Second, the study presents evidence from a developing country that can serve as a pedestal for further research on the topic, particularly in developing countries, given that the data are derived from and tailored to developing country contexts.

5.5 Practical Implications of the Study

This study can potentially inform shareholders and managers as to the increasing gap between the amounts of information held by management and that held by market participants. Also, the study informs Shareholders on the need to ensure a sound system to curb earnings management.

References

Abata, M. A., & Migiro, S. O. (2016). Corporate governance and management of earnings: empirical evidence from selected Nigerian-listed companies*. Journal of Economics and Behavioural Studies*, 8: 54-74.

Abdoli, M. R., & Royaee, R. (2012). Board monitoring and earnings quality: an empirical study in Iran. *African Journal of Business Management,* 6(11): 4179-4184.

Abdulmalik, S., Ahmad, A. C., & Aliyu, U. B. (2015). Financial Reporting Quality: The Role of Independent and Grey Directors, Board Continuous Training and Internal Audit Function. *IPBJ,* 7(2): 40-57.

Ahmed, K., Hossain, M., & Adams, M. B. (2006). The effects of board composition and board size on the informativeness of annual accounting earnings. Corporate Governance: *An International Review*, 14(5): 418-431.

Al Farooque, O., Suyono, E., & Rosita, U. (2014). The link between Market Return, Governance and Earnings Management: An Emerging Market Perspective. *Corporate Ownership & Control*, 11(2): 204-203.

Al-Dhamari, R. A., & Ismail, K. N. I. K. (2014). Association between board characteristics and earnings quality: Malaysian evidence. *Journal Pengurusan*, 41: 43-55.

Algharaballi, E. (2013). Earnings management practices and subsequent firm performance of companies listing on the Kuwait Stock Exchange (KSE). The University of Southern Queensland. Retrieved from http://eprints.usq.edu.au/23415

Al-Taleb, G. (2012). Measurement of Impact Agency Costs Level of Firms on Dividend and Leverage Policy: An Empirical Study*. Interdisciplinary Journal of Contemporary Research in Business*, 3(10): 234–243.

Alves, S. (2011). Ownership structure and earnings management: Evidence from Portugal*. Australasian Accounting Business & Finance Journal*, 6(1): 57-73.

Anderson, R., Mansi, S., & Reeb, D. (2004). Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting and Economics,* 37: 315-342.

Arniati, T., Puspita, D.A., Amin, A., Pirzada, K. (2019). The implementation of good corporate governance model and auditor independence in earnings' quality improvement. Entrepreneurship and Sustainability Issues, 7(1), 188-200. http://doi.org/10.9770/ jesi.2019.7.1(15)

Ching, K. M., Firth, M., & Rui, O. M. (2006). Earnings management, corporate governance, and the market performance of seasoned equity offerings in Hong Kong. *Journal of Contemporary Accounting & Economics*, 2(1): 73-98.

Choi JH, Kim JB, Lee JJ (2011). Value relevance of discretionary accruals in the Asian Financial Crisis of 1997-1998. *Journal of Accounting and Public Policy*, 30(2): 166-187. Crossref

Chrisman, J. J., Chua, J. H., & Litz, R. A. (2004). Comparing the agency costs of family and non-family firms: Conceptual issues and exploratory evidence. *Entrepreneurship: Theory & Practice*, 28(4): 335–354.

Chung, R., Ho, S., & Kim, J. B. (2004). Ownership structure and the pricing of discretionary accruals in Japan*. Journal of International Accounting, Auditing, and Taxation,* 13(1): 1-20.

Cormier, D., Ledoux, M. J., Magnan, M., & Aerts, W. (2010). Corporate governance and information asymmetry between managers and investors. Corporate Governance: *The international journal of business in society,* 10(5): 574-589.

Davidson, R., Goodwin-Stewart, J., & Kent, P. (2005). Internal governance structures and earnings management. *Accounting & Finance*, 45(2): 241-267.

De Andres, P., Azofra, V., & Lopez, F. (2005). Corporate boards in OECD countries: Size, composition, functioning, and effectiveness. *Corporate Governance: An International Review*, 13(2): 197-210.

Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting Earnings Management. *The Accounting Review,* 70(2): 193-225.

Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1996). Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary accounting research*, 13(1): 1-36.

Dimitropoulos, P. (2011). Corporate governance and earnings management in the European football industry. *European Sport Management Quarterly,* 11(5): 495-523.

Egbunike, P. A., Ezelibe, P. C., & Aroh, N. N. (2015). The Influence of Corporate Governance on Earnings Management Practices: A Study of Some Selected Quoted Companies in Nigeria. *American Journal of Economics, Finance and Management,* 1(5): 482-493.

Eisenberg, T., Sundgren, S., & Wells, M. T. (1998). Larger board size and decreasing firm value in small firms. *Journal of Financial Economics*, 48: 35-54.

Fama, E. F., & Jensen, M. C. (1983). Separation of Ownership and Control. *J. Law Econ*., 26: 1-32.

Fields, M. A., & Keys, P. Y. (2003). The Emergence of Corporate Governance from Wall St. to Main St.: Outside Directors, Board Diversity, Earnings Management, and Managerial Incentives to Bear Risk. The Financial Review, 38(1), 1-24. http://dx.doi.org/10.1111/1540-6288.00032

Fields, T. D., Lys, T. Z., & Vincent, L. (2001). Empirical research on accounting choice. *Journal of Accounting and Economics,* 31(1-3): 255–307.

Firth, M., Fung, P. M., & Rui, O. M. (2006,2007). Ownership, two-tier board structure, and the informativeness of earnings–Evidence from China. *Journal of accounting and public policy*, 26(4): 463-496.

Francis, J., Olsson, P., & Schipper, K. (2008). Earnings quality. Hanover, USA: Now Publishers.

Gul, F. A., Chen, C. J., & Tsui, J. S. (2003). Discretionary accounting accruals, managers' incentives, and audit fees. *Contemporary Accounting Research*, 20 (3): 441-464.

Hilkevics, S., & Semakina, V. (2019). The classification and comparison of business ratios analysis methods. *Insights into Regional Development*, 1(1): 48-57. https://doi.org/10.9770/ird.2019.1.1(4)

Ho, S. S. M., & Wong, K. S. (2001). A study of the relationship between corporate governance structures and the extent of voluntary disclosure. *Journal of International Accounting, Auditing and Taxation*, 10(2): summer, 139–156.

http://doi.org/10.9770/jssi.2020.9.4(13)

Jensen, M. C. & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3(4): 305-360.

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *Journal of Finance,* 48(3): 831-880.

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *Journal of Finance*, 48(3): 831-880.

Jiraporn, P., Miller, G. A., Yoon, S. S., & Kim, Y. S. (2008). Is earnings management opportunistic or beneficial? An agency theory perspective. *International Review of Financial Analysis,* 17(3): 622-634.

Kang, P. K., & Kim, T. N. (2014). The impact of excess cash holdings on the relationship between information asymmetry and earnings management. Retrieved fromhttp://swfa2015.uno.edu/A_%20Information_Asymmetry/paper_95.pdf

Krishnaswami, S., & Subramaniam, V. (1999). Information asymmetry, valuation, and the corporate spin-off decision. *Journal of Financial Economics*, 53: 73–112.

Li, T. (2009). Accounting quality and corporate governance (Unpublished master's dissertation). Tilburg University, Netherlands. Retrieved from http://ssrn.com/ abstract=1447225.

Linck, J., Netter, J., & Yang, T. (2008). The determinants of board structure. *Journal of Financial Economics*, 87: 308-328.

Liu, C., & O'Farrell, G. (2011). The impact of IFRS on earnings management: evidence from the People's Republic of China. *International Journal of Services and Standards*, 7(3/4): 264-277.

Mak, Y. T., & Kusnadi, Y. (2005). Size really matters: Further evidence on the negative relationship between board size and firm value. *Pacific-Basin Finance Journal,* 13(3): 301-318.

Marra, A., Mazzola, P., & Prencipe, A. (2011). Board monitoring and earnings management pre-and post-IFRS. *The International Journal of Accounting*, 46(2): 205-230.

Matoussi, H., & Kolsi, C. M. (2006). The interaction between accruals management and financial engineering with special purpose entities. *Journal of Human Resource Costing & Accounting*, 10(2): 72-91.

McEwen, R. A. (2009). Transparency in financial reporting: a comparison between IFRS and US GAAP. Great Brittan: Harriman House Limited.

Mohammady, A. (2010). Earnings Quality Constructs and Measures. Retrieved from https://ssrn.com/abstract= 1678461

Otuya, S., Donwa, P. A., & Egware, N. (2017). Earnings Management and Quality of Corporate Governance in Nigeria: A Review of Executive Compensation and Audit Committee Characteristics. *Journal of Accounting and Financial Management*, 3(3): 49-63.

Pyung-kyung, K., & Tae-nyun, K. (2015). The Relation between Information Asymmetry and Earnings Management. *Korea International Accounting Review,* 61: 171-190.

Rahman, A. R., & Ali, H. M. F. (2006). Board, audit committee, culture and earnings management: *Malaysian evidence. Managerial Auditing Journal,* 21(7): 783-804.

Reyna, J. M. S. M. (2012). An Empirical Examination of Ownership Structure, Earnings Management and Growth Opportunities in Mexican Market. *International Journal of Business and Social Research*, 2(7): 103-123.

Ronen, J., & Yaari, V. (2008). Earnings Management. New York: Springer.

Ross, S. (1973). The economic theory of agency: the principal's problem. *American Economic Review*, 63: 134–139.

Roychowdhury S (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics,* 42(3): 335-370. Crossref

Ruiz Estrada MA, Koutronas E, Lee M (2020). Stagpression: The economic and financial impact of the Covid-19 Pandemic. Crossref

Sama'ila, I. A., & Zaharaddeen, A. (2015). Corporate board structure and earnings management of listed cement companies in Nigeria. Institute of Chartered Accountants of Nigeria (ICAN), 1st Academic Conference of Accounting and Finance, Conference Proceedings.

Siregar, S. V., & Utama, S. (2008). Type of earnings management and the effect of ownership structure, firm size, and corporate-governance practices: Evidence from Indonesia. *The International Journal of Accounting*, 43(1): 1-27.

Smit, A. (2015). The quality of reported earnings and the monitoring role of the board: Evidence from small and medium companies. *Southern African Business Review*, 19(Special edition 2): 52-73.

Veronica, S., & Bachtiar, Y. S. (2005). Corporate governance, information asymmetry, and earnings management. *Jurnal Akuntansi dan Keuangan Indonesia*, 2(1): 77-106.

Wijaya, J., Pirzada, K., & Fanady, C. (2020). Determinants of earnings management: An empirical analysis. *Journal of security and sustainability issues*, 9(4). 1266-1273. ISSN 2029-7017 print/ISSN 2029-7025 online

Xie, B., Davidson III, W. N., & DaDalt, P. J. (2003). Earnings management and corporate governance: the role of the board and the audit committee. *Journal of corporate finance,* 9(3): 295-316.

Xu R, Taylor G, Dugan M (2007). Review of real earnings management literature. *Journal of Accounting Literature* 26:195-228.

Yasser, Q. R., & Mamun, A. A. (2016). The relationship between board leadership structure and earnings management in Asia-Pacific. *Accounting Research Journal,* 29(4): 413-428.

Yermarck, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics*, 40: 185-211