BOARD CHARACTERISTICS AND EARNINGS MANAGEMENT OF LISTED CONSUMER GOODS COMPANIES IN NIGERIA

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**Keywords:** Board Size, Board Financial Expertise, Board Meetings Attendance, Board Gender Diversity and Earnings Management.

**Abstract:** The achievement of sustainable development, particularly in the areas of growth and profitability indices, is a shared objective of all business entities. Corporate managers' manipulation of earnings could make it more difficult to reach this ambitious goal. Board characteristics play a crucial role in ensuring that the board fulfills its duty to represent the interests of all stakeholders and to prevent, curtail or reduce any earnings manipulation practice. The study examines the impact of board characteristics on earnings management of listed consumer goods companies in Nigeria using the Srivastava 2019 Cohort Adjusted measure of real earnings management. The study proxied board characteristics by board size, board meetings attendance, board meetings, board financial expertise, and board gender diversity while the dependent variable is earnings management using Srivastava (2019) Cohort Adjusted Measure of real aspect of earnings management, whereas firm size, firm growth, and firm age were used as a control variables. Secondary data were extracted from the annual reports of 16 listed consumer goods companies on the Nigerian Stock Exchange for the period 2011 to 2021. After running the OLS regression, a robustness test was conducted for the validity of statistical inferences, a multiple regression was employed. The study documents that board size and board financial expertise has a negative significant impact on earnings management of the listed consumer goods companies in Nigeria. Furthermore, board meetings attendance has a positive significant impact on the earnings management of listed consumer goods companies in Nigeria, while board meetings and board gender diversity have insignificant relationship with earnings management. In line with the findings, the study recommended that regulatory bodies like FRCN, SEC, and NSE should ensure that listed consumer goods companies in Nigeria strictly adhere to the code of best practice so that the interest of various stakeholders would be fully protected. While the management of the consumer goods companies listed in Nigeria should give much emphasis on inviting directors who are finance experts when considering any specific issue.
1. **INTRODUCTION**

The rise and fall of Enron in 2001, the WorldCom scandals in 2002, the issues with Global Crises, Tyco's corporate failures, Cadbury Nigeria Plc, wirecard, and FTX scandals led some scholars to conclude that the board of directors has little to no effective management oversight. In the real world, Enron’s yearly financial statements were manipulated through the use of off-balance-sheet financing in order to deceive the corporation. Due to a lack of board independence from senior executives, the board was either unable or unwilling to disclose the distorted financial statements (Zubeltzu et al. 2019). The wirecard, FTX, and Cadbury Nigeria Plc scandals, as well as other instances of corporate failure, have sparked a greater interest in the relationship between board characteristics of corporate governance and earnings management than ever before, and Nigeria has not been exempted from this corporate scandal either. In an accounting fraud involving Cadbury Nigeria Plc, the company's profile was overstated by about N13 billion between the years 2003 and 2006. It is quite difficult to think that businesses may raise equity from the stock market anywhere in the world given the hardship that investors experienced (Agrawal & Chadha, 2005).

The widespread corporate scandals that affect businesses, including those involving Cadbury Nigeria Plc, Wirecard, and FTX, raised important concerns about the accuracy of financial statements and their capacity to accurately portray businesses' economic conditions. The inherent weakness in governance procedures through earnings management has been cited as one of the causes of these scandals. Earnings management involves the use of selective judgment by management in the selection of accounting policies (costs incurred for research and development, historical or current cost accounting, and translation of foreign currency items) and in the structuring of transactions to alter the financial report in order to either mislead users or influence the contractual outcome that depends on the information being reported to the shareholders, so managers as an agent have a duty to act in the best interests of the company. According to Healy & Wahlen (1999 in Goretti, 2009), the adaptability of accounting rules also gives managers a lot of flexibility to change accounting earnings. Earnings management, on the other hand, is the departure from standard operating procedures to deceive one or more stakeholders into believing that certain financial reporting goals have been achieved in the normal course of operation, which is primarily motivated by the managers, or where companies manipulate their earnings through sales manipulation by offering more lenient terms and conditions than usual to boost current period sales, which will reduce cash flow from operations (Roychoyw).

Therefore, a potential characteristic of real earnings management by corporations is lesser cash flow from activities. The characteristics of a board of directors for a firm are the subject of a board attribute. Board size, board meetings attendance, board meetings, board financial expertise and board gender diversity are just a few of the various board characteristics. The board of directors was described by Vihi, et al. (2019) as an internal control mechanism for overseeing senior management and defending the interests of shareholders.
However, the board of directors, according to Fama (1980), is a "market-induced institution, the ultimate internal monitoring of the set of contracts called a firm, whose most important role is to scrutinize the highest decision-makers within the firm.". According to Garcia and Herrero (2018), the board of directors is the essential component of corporate governance. Its fundamental duties include preventing management from acting opportunistically, monitoring and supervising operations, and offering guidance to decision-makers to help them manage the company more effectively. The board of directors has frequently been regarded as the key internal control mechanism to oversee top management and safeguard the interests of shareholders among the collection of corporate governance systems (Vihi, et al., 2019). Since Roychowdhury's (2006) measure of earnings management was largely the focus of earlier studies on REM, such as those by Abubakar et al. (2017), Shehu and Garba (2014), and Cohen et al. (2011), the Srivastava (2019) adjusted measure was used in the current study. The models developed by Roychowdhury in 2006 are unable to distinguish between a firm's competitive strategy and earnings management. As a result, if businesses in the same industry use different tactics, researchers may draw the wrong conclusion that REM occurs. It is possible to draw incorrect inferences about the prevalence and reach of earnings management due to the stark disparities in competing strategies among industries. Additionally, factors related to accounting and finance such executive salary, disclosure policy, and corporate governance are related to competitive strategy. On the other hand, previous studies focused on the accrual aspect of earnings management, Abiodun (2020); Fawzi (2020); Abdulwahid and Faozi (2020); Frode, et al (2020); Hosam, et. al (2019) Chinedu and Augustine, (2018); Ishaq, et. al (2019); Ben et. al. (2019); Onwuchekwa and Madumere (2019). However, as corporations manipulate earnings not only through accruals but also by adopting or delaying production or operating activities that modify the earnings towards the desired aim, the current study will employ genuine aspects of earnings management. The number of board meetings held during a fiscal year was used as a proxy for board characteristics in earlier studies on board characteristics and earnings management by Sinan et al. (2016), Syahirah (2017), Buraik & Idris (2020), and Hashed & Almaqtari (2021). The board members' attendance at meetings is more crucial since their participation will provide them the chance to discuss crucial topics that will aid in identifying and lowering the level of actual earnings management in Nigeria's listed consumer goods companies. Due to the relevance of board meetings in identifying and minimizing real earnings management, the present study used both the board meeting attendance and board meeting as a proxy for board characteristics. This study's primary objective is to investigate how board characteristics impact on earnings management in the listed consumer goods companies in Nigeria. Specifically, the study aimed at determining the effect of board size, board meeting attendance, board meeting and board gender diversity on real earnings management of listed consumer goods companies in Nigeria. The remainder of the paper is organized as follows: Section two (2) provides literature on
board characteristics and EM and previous researches about these concepts. Section three (3) presents methodology of the study. Section four (4) Presents results and discussions and lastly section five (5) discusses conclusion and recommendations.

2. LITERATURE REVIEW

Concept of Board Characteristics

A board characteristic is concerned with the features or attributes of a company board of directors. There are different boards characteristics, including board size, board composition, board meeting attendance, board meeting and board diversity. Vihi, et al, 2019 defined the board of directors as the internal control mechanisms aimed at monitoring top management and protecting shareholders' interests.

Numerous authors and scholars have defined the idea of board size. El-Maude, Bawa, and Shamaki (2018) defined board size as the total number of directors on the board, including outside directors, executive directors, and non-executive directors, as well as the CEO and Chairman. According to Hosam, et al. (2019), the board size of each sample firm is the total number of directors on the board, including the CEO and Chairman designated for each accounting year. According to Tulay and Ozan (2016), the board's size is the total number of members, including within and outside directors.

Board financial expertise can be seen as the number of directors with accounting and finance qualifications (Abubakar, et al. 2017). The effective discharge of the responsibilities of the board and its committees is assured by an appropriate balance of skills and diversity (including experience and gender) without compromising competence, independence, and integrity (Code of Corporate Governance, 2018). Expertise, also known as education, is one of the vital ingredients in decision making which could lead to performance and reduction in earnings management in any organization (Welford, 2007). Whereas earnings management can be referred to as the manipulation of earnings by managers using financial statement elements that are largely at their discretion to achieve divergent personal goals. These elements are peculiar to industries depending on the nature of the operation and their external regulatory framework.

A board meeting is the total number of times the board meets every financial year (Shanmugavel & Roshan, 2019). The principal device managing the business of the board and fulfilling the strategic objectives of the company successfully can be termed as a board meeting and to effectively perform its oversight function and monitor management's performance, the board should meet at least once every quarter (Code of Corporate Governance, 2011). Every director should endeavor to attend all board meetings. Board of directors’ meetings attendance also influences board effectiveness in reducing real earnings management. Board of directors’ meetings attendance is a view as the total number meetings each director attended held in a year by the board (NACD, 2002; Bita & Noravesh, 2005; and Klein, 2006)., As the number of board meetings attendance increases, the operation performance of the companies will be improved and the level of earnings management will be reduced (Klein, 2006). This suggests that the frequency of meetings and attendance of directors is an important dimension of the effect of the board.
Gender diversity is one of the corporate board variations among which are age, race, ethnicity and socio-cultural identities (Bosun-Fakunle, 2019). Gender diversity is the presence of female directors on board especially professional directors that tend to yield a high level of honesty and ethical values, greater independent reasoning which exhibit higher level of transparency and more credibility within the board (Bosun-Fakunle, 2019).

**Concept of Earnings Management**

Liu (2011) defined earnings management as actions managers take that deviate from normal business practice. Carikci and Sami (2019) posit earnings management as firms’ attempt to achieve desired earnings numbers by departing from normal operating activities. In similar studies, Gunny (2009) states that real earnings management occurs when managers undertake actions that change the timing or structuring of an operation, investment, and or financing decision to influence the output of the accounting numbers. Shehu and Garba (2014) view earnings management as a purposeful action by management to alter reported earnings in a particular direction, which is achieved by changing the timing or structuring of an operation, investment, or financing, and has suboptimal business consequences.

Roychowdhury (2005) defined real earnings management as a departure from normal operational practice, motivated by managers’ desire to mislead at least some stakeholders into believing that certain financial reporting goals have been met in a normal course of operation. On the other part, Antonio (2010) sees earnings management, as managers’ decisions to manipulate accounting figures. Also, Gunny (2005) views real earnings management as actions that imply managers’ deviation from an otherwise optimal plan only to affect earnings, thus, imposing a real cost to the firm. Whereas earnings management assumes various terminologies in this regard, thus it may mean creative accounting, financial engineering, and accounting magic. Sabrun, et al., (2015) defined earnings management as disclosure management in the sense of purposeful intervention in the external reporting process, intending to obtain private gain. Therefore, there is the likelihood that managers will engage in income-increasing earnings management. This is very possible due to flexibility in accounting standards. Apart from the reward, they could receive it may at the same time enable them to safeguard their job from the eyes of the law and owners of the business. This is because owners have no in-depth knowledge of the status of their business.

The conceptual framework of the study is presented as follow:

![Conceptual Framework](chart.png)

**Source:** Researcher’s Compilation 2023

**Literature Review**
In this section, related literature on board characteristics and earnings management are reviewed as follows: Kankanamage (2015) examined the impact of board characteristics on earnings management in Sri Lanka. The population of the study comprise of all the listed companies in the Colombo Stock Exchange (CSE) during the period of 2011-2014. The study used a period from 2012 to 2015 and ordinary least squares regression (OLS) was used to examine the effect of the board on earnings management for a sample of 160 listed firms in Sri Lanka. The study used discretionary accruals through Kothari, et al. (2005) performance-adjusted discretionary accrual model to measure earnings management, and used board size, board composition, board financial expertise, and board meetings as a proxy for board characteristics. The study found that board size, board composition, board financial expertise, and board meetings have a significant relationship with the earnings management of the firms.

Similarly, Hussaini and Gugong (2015), examined the influence of board characteristics and earnings management of listed food and beverages firms in Nigeria. Multiple regression was used and the study covers a period of six years from 2009 to 2014. Data for the study were extracted from the firms’ annual reports and accounts. Multiple regressions were employed to test the model of the study using Random Model. The population of the study consists of all the listed Food and Beverages Firms in Nigeria, while census sampling techniques was used, eight firms was used as sample size. The study found an inverse relationship between board size, board meetings, and board financial expertise, and earnings management of listed food and beverages firms in Nigeria while board composition and women directorship are positively significantly related to earnings management of listed food and beverages firms in Nigeria. The period of six years covered by the study is too short to generalize the result.

However, Amin, et al. (2017) examined the impact of board of commissioners and auditor examination on earnings management practices. The study used 122 manufacturing companies listed on the Indonesia Stock Exchange between 2011 and 2014. The study used moderating regression analysis to examine the impact of ownership concentration on the model of earnings management monitoring. Independence, expertise, size, board of commissioner’s influence are used as the board of directors’ attributes proxies. The study found a negative effect between independence, expertise, and size on earnings management, and a positive effect between a board meeting and earnings management.

Abubakar et al. (2017) examined the relationship between board attributes and real earnings management of listed Nigerian financial institutions. Real earnings management is proxied with residuals from Roychowdhury (2006) while board meeting and board expertise, female directors were used as board attributes proxy. Descriptive research design was used and secondary data were collected from 45 financial institutions out of the 55 quoted on the Nigerian Stock Exchange, 2011 to 2016 was used as the period of the study. Panel Corrected Standard Errors (PCSEs) regression was utilized for analysis purposes. The study found that board expertise and board meetings have a significant positive impact on real earnings management. It was also found that female directors have a
significant negative effect on real earnings management.

Florence, et al. (2018) studied the impact of ownership structure and board characteristics on earnings management in listed deposit money banks in Nigeria. The study used the ex-post facto research design. The study's population comprised the fifteen quoted banks on the Nigerian Stock Exchange from 2011 to 2016, while fourteen banks were used as the sample for the study. The study covers a period of 5 years (2011-2016) and private shareholding, foreign shareholding, government shareholding, board size was used as a proxy for ownership structure and board characteristics. The panel least-square method was used to analyze the data collected. The study found that board size, gender, and the size of the firm have insignificant effects on the earnings management in the period.

Chinedu and Augustine (2018) examined board leadership structure and earnings quality in quoted manufacturing firms in Nigeria. Earnings quality was proxied with discretionary accruals, while board leadership structure proxied with board size, board composition, the proportion of non-executive directors, CEO duality. Secondary data was used for a sample of 45 non-financial listed Nigerian companies (conglomerates, consumer goods and industrial goods firms) for the years 2011 to 2016, and the pooled OLS regression model was adopted. Based on the analysis, it was found that board size and board composition were positive and significant. However, the proportion of non-executive directors was negative and significant; while, CEO duality was positive and statistically significant. Boards should not just reflect size but rather the skills and expertise of individuals appointed to the board.

Hemathilake, et al. (2019) investigated board characteristics and earnings management from a Sri Lankan Perspective. Discretionary Accruals are used as a proxy for earnings management, while board characteristics are proxied with CEO duality, board independence, board members with financial expertise, number of board meetings, and board size. The control variables used in the study are firm Size, return on assets (ROA), leverage, and auditor type. Descriptive research design was used and secondary data were used as a source of data for the study and regression models were used for the analysis, and census sampling technique was used to arrive at the sample size of sixty listed companies. The study findings show a negative association between CEO duality, board size, and earnings management while a positive association exists between board independence, board meeting, board members with financial expertise, and earnings management practices.

Ishaq, et al. (2019) investigated regulatory changes, board monitoring, and earnings management in Nigerian financial institutions. Board independence, audit committee shareholders chairman, audit committee meeting, audit committee size are used as board monitoring proxies. A dynamic panel data model of the generalized method of moment (GMM) was utilized in analyzing the data, the study used fifty-nine listed banks and insurance companies, where twenty-nine kcompanies are used as sample size for the period of five years (2011 to 2015). The empirical results found that an essential and significant negative relationship role is played by board independence and shareholders as audit committee chair in curving earnings management. Specifically, the study found that an effective role is played by...
shareholders in chairing the audit committee and suppressing the extent of earnings management.

Hosam, et al. (2019), examined the impact of board characteristics on earnings management among the international Oil and Gas Corporation in the world. Board Characteristic is proxied with board independence, the board size, board diversity, and CEO duality. A quantitative research approach is applied, secondary data were used, and 71 corporations were used out of the top 250 corporations as a sample of the study, for one year (2016). The findings of this study showed that there is significant impact board independence can play in the reduction of earnings management. In contrast, there is no effect board size has on the decrease in earnings management. There is a significant impact gender diversity play on the reduction of earnings management.

Similarly, Abiodun (2020) examined board attributes and earnings on earnings quality of listed financial firms in Nigeria. Board independence, the board size, and board meeting are used as board attributes variables, and the study employed secondary data. The study used all 16 listed financial firms on the Nigerian Stock Exchange as the population of the study. The study adopted a purposive sampling technique, and the study selected the top 10 banks whose shares are consistently traded on the stock market. The study used a period of 10 years (2008-2017). The study analyzed data using pooled ordinary least square, fixed effect, and random effect estimation techniques. The study finds a positive relationship between board independence, and board size and earnings quality, while board meeting does not show statistical significance.

Abubakar et. al. (2021) investigates the effect of board attributes on the management of real earnings for listed consumer goods companies in Nigeria. Secondary data was gathered from the 2011 to 2020 annual reports of 16 consumer products companies listed on the Nigerian Stock Exchange. Regression using ordinary least squares was applied. The study employed the Srivstava (2019) Cohort Adjusted Measure to measure the dependent variable, real earnings management, and the control variables, firm size, firm growth, and firm age, to test the board attribute of board size, independence, and financial expertise. According to the report, the listed consumer goods companies in Nigeria have a considerable negative influence on real earnings management due to board size and financial expertise. Additionally, board independence significantly enhances the management of real earnings for listed consumer products companies in Nigeria.

Attia, et al. (2022) examined the influence of board of directors’ traits on real earnings management (REM). To test the assumptions, panel data from 78 out of the 226 Egyptian listed firms was gathered from 2008 to 2017. The results of the system generalized method of moment model showed that, with the exception of the abnormal cash flows from operations (ABCFO) measure, the board size is significantly and negatively connected with REM proxies. Board meetings, however, are favorably and significantly connected to REM, with the exception of ABCFO. Due to the several REM proxies utilized in this study, outcomes for board independence and chief executive officer duality varied.

Also, Mark and Daniel (2022) investigated the impact of board attributes on the earnings
management of a listed health firm in Nigeria over a ten-year (2011–2020) period. The study used an ex-post facto research design, and secondary data from Nigerian Exchange Group was used for analysis. The population of the study consists of ten (10) listed health firms operating on the Nigeria Exchange Group (NGX) as at 31st December 2020. The sample size is 8 and purposive sampling techniques were adopted. Research data were analyzed using the panel regression analysis technique. The outcome demonstrated that board size (BS) and board frequency meeting (BFM), used as proxies for board characteristic, have a favorable and significant effect on discretionary accrual, also regarded as a measure of earning management, whether taken alone and combined.

In light of the above, Chude & Chude (2023), explored the relationship between board characteristics and real earnings management among listed Deposit Money Banks (DMBs) in Nigeria. Particularly, the study looked at how board independence and size affected the REM proxy, or discretionary loan loss provision. All thirteen (13) banks that are listed on the Nigerian Exchange Group (NGX) made up the final sample. Secondary data from yearly financial statements for the years 2012 to 2022 were used in the study. Using pooled ordinary least square regression, the data were examined. The results demonstrated a substantial negative relationship between board size and real earnings management as well as a negative relationship between board independence and real earnings management in Nigerian banks. From the above, it can be deduced the reviewed literature period is not beyond 2012, and the accrual aspect of earnings management measure REM using Roychoywdhury (2006) which do not consider competitive strategy, while the present study measured REM using Srivastava (2019) adjusted measure, also the studies concentrate on other sectors of the economy, not consumer goods companies. Therefore, the present study filled the gap by using a period up to 2021, and the real aspect of earnings management was used in listed consumer goods companies in Nigeria, also the reviewed literature ignored attendance of board member in a meeting, as its important mechanism in determining real earnings management. Therefore, the present study used board meeting attendance on real earnings management.

2.3 Theoretical framework
The study considered two theories that are relevant to the study and to give the theoretical basis for understanding the dynamics of board characteristics and its roles in minimizing earnings management of listed consumer goods companies in Nigeria. These theories include Agency theory and Stakeholders theory. However, the theory that best guide this study is the stakeholder theory because stakeholder theory suggests that a firm is responsible for considering and addressing the interests of all its stakeholders, which include employees, customers, suppliers, creditors, shareholders, and the community. In the context of earnings management, a stakeholder approach would consider the interests of all the stakeholders involved in financial reporting, such as shareholders, creditors, analysts, regulators, and the wider community. This approach would acknowledge that financial reporting is not only a tool for shareholders to assess the firm’s performance but also a means of communicating
companies were filtered out in selecting the sample size, companies that lacked comprehensive records of all the data required for measuring the study's variables across a ten-year period (2011–2021). Additionally, companies that were listed before 2011 and the companies delisted during the study period (2011–2021) were also eliminated. Sixteen companies were chosen as the study's sample size after the filter was applied. Therefore, sixteen (16) companies (Cadbury Nigeria Plc, Champion Brew Plc, Dangote Sugar Refinery Plc, Flour Mills Plc, Guinness Nig. Plc, Honey Well Flour Mill Plc, International Breweries Plc, Mcnichols Plc, Nascon Allied Industries Plc, Nestle Nigeria Plc, Nigerian Brew Plc, Nigerian Enamelware, Northern Nig. Flour Mill Plc, PZ Cussons Nig. Plc, Unilever Nig. Plc, and Vita Foam Nig. Plc) -were selected as sample size of the study.

As a method of data analysis, multiple regression (pool ordinary least square) was used. This method's use was justified by the fact that it may be used to examine the statistical relationship between variables and forecast expected results.

<table>
<thead>
<tr>
<th>S</th>
<th>Variable</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Earnings Management</td>
<td>Residuals of Cohort-adjusted measure (2019) model of abnormal cash flow is calculated by subtracting the revised measure of the control firm from that of the given firm (Srivastava, 2019). It is called the cohort-adjusted measure: $\text{CFO}<em>t/\text{TA}</em>{t-1} = \alpha_0 + \alpha_1/\text{TA}<em>{t-1} + \alpha_2\text{SL}<em>t/\text{TA}</em>{t-1} + \alpha_3\Delta\text{SL}<em>t/\text{TA}</em>{t-1} + \alpha_4\Delta\text{SL}</em>{t-1}/\text{TA}<em>{t-1} + \alpha_5\log\text{MarketValue}<em>t + \alpha_6\log\text{ROA}<em>t + \alpha_7\log\text{M/B}<em>t + \alpha_8\log\text{SL}</em>{t+1}/\text{TA}</em>{t+1} + \alpha_9\text{CFO}</em>{t-1}/\text{TA}</em>{t-1} + \mu_t$</td>
</tr>
<tr>
<td>2</td>
<td>Board size</td>
<td>The total number of directors on the board (Lippolis &amp; Grimaldi, 2020)</td>
</tr>
<tr>
<td>3</td>
<td>Board Meeting</td>
<td>The total number of meetings held by the board members in a year (Chou &amp; Dharmawan, 2017)</td>
</tr>
<tr>
<td>4</td>
<td>Board Meeting Attendance</td>
<td>The average attendance of board members in a meeting held in a year by the board (Chou &amp; Dharmawan, 2017)</td>
</tr>
</tbody>
</table>
4. Results and Discussions

This section covers the presentation, analysis and discussion of the results of the study. Results from the descriptive statistics of all the variables are presented, the correlation matrix and regression results are presented and discussed. Finally, the section closes with the implication of finding.

Table 2: Descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Observation</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>176</td>
<td>0.0194839</td>
<td>0.1216899</td>
<td>-0.3859847</td>
<td>0.3174161</td>
</tr>
<tr>
<td>BS</td>
<td>176</td>
<td>10.01136</td>
<td>2.616407</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>BMA</td>
<td>176</td>
<td>89.16551</td>
<td>6.9852</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>BM</td>
<td>176</td>
<td>4.738636</td>
<td>1.074316</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>BF</td>
<td>176</td>
<td>53.58808</td>
<td>19.0309</td>
<td>7.692307</td>
<td>100</td>
</tr>
<tr>
<td>BGD</td>
<td>176</td>
<td>14.73559</td>
<td>11.78801</td>
<td>0</td>
<td>44.44444</td>
</tr>
<tr>
<td>FG</td>
<td>176</td>
<td>0.0423103</td>
<td>0.2028174</td>
<td>-1.23038</td>
<td>0.7240091</td>
</tr>
<tr>
<td>FA</td>
<td>176</td>
<td>48.69886</td>
<td>20.2017</td>
<td>6</td>
<td>97</td>
</tr>
<tr>
<td>FS</td>
<td>176</td>
<td>17.73096</td>
<td>1.507342</td>
<td>14.36926</td>
<td>20.10567</td>
</tr>
</tbody>
</table>

Source: Stata 14 output 2023

Table 4.1 shows that the measure of earnings management (EM) of the listed consumer goods companies in Nigeria has a mean value of 0.0194839 with a standard deviation of 0.1216899, and minimum and maximum values of -0.3859847 and 0.3174 respectively. This implies that the average real earnings management by managers in listed consumer goods companies in Nigeria is 0.0194839 and the deviation from both sides of the mean is 0.1216899. This suggests a wide dispersion of the data from the mean. The minimum EM value of -0.38598 implies that the lowest earnings management by managers cannot cause significant reduction in the earnings management. However, the maximum EM of 0.3174 is high and implies a situation where the EM covered 0.3174 of the distortion in the financial statement of the listed consumer goods companies in Nigeria.

The minimum and maximum value board size stood at 4 to 15 members respectively, with an average of 10.01136 and standard deviation of the board size is 2.616407 which is moderately less than the mean value. Similarly, the average board meetings attendance is 89.16551% with a standard deviation of 6.9852%, and minimum and maximum meetings attendance of 50% and 100% respectively. The standard deviation suggests a high dispersion of the data from the
mean. Board meeting has a mean value of 4.738636, meaning that and minimum and maximum value of 3 and 9 meetings respectively. Furthermore, directors with expertise in finance on the board (board financial expertise) is at average of 53.59% with a standard deviation of 11.79%, the minimum and maximum percentage of directors with expertise in finance are 7.69% and 100% respectively. Finally, Table 4.2 shows that board gender diversity has minimum and maximum values of 0% and 44.44% respectively leading to a mean value of 14.74% which is associated with a standard deviation of 20.20%.

4.3 Correlation Matrix

This section presents and discusses a correlation matrix that explains the level of association between independent and dependent variables of the study and between independent variables themselves.

### Table 4.2: Correlation Matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>REM</th>
<th>BS</th>
<th>BMA</th>
<th>BM</th>
<th>BF</th>
<th>BGD</th>
<th>FG</th>
<th>FA</th>
<th>FS</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS</td>
<td>0.0662</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMA</td>
<td>0.1712</td>
<td>0.1264</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BM</td>
<td>0.1160</td>
<td>-</td>
<td>0.0106</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BF</td>
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<tr>
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</table>

**Source: Stata 14 Output 2023**

The results in table 4.2 show the degree of association between earnings management (EM) and all pairs of independent variables individually between themselves, dependent, independent, and control variables and cumulatively with the dependent variable. A positive relationship exists between EM and board size, board meetings attendance, board meeting, board gender diversity, firm growth, firm age and firm size. This is inferred from the correlation coefficient of 0.0662, 0.1712, 0.1822, 0.1160, 0.1089, 0.1180, 0.0023 and 0.5256 respectively. While a negative relationship exists between REM and board financial expertise with coefficient of -0.1927.

4.4 Robustness Test for Dependent and Independent Variables

This section of the study presents and discusses the entire robustness test conducted to improve the validity and reliability of the statistical
inferences derivable from the regression model. This test includes; multicollinearity test and the Cook-Weisberg test of heteroskedasticity.

However, as a result fixed effect model was run which suggest that this work should interpret the result of the random effect model because the Hausman test is not significant at any level of significant (0.9760). LM test is conducted in order to be guided in deciding which regression model best fit the study between the random effect regression model result and the OLS regression model result. However, the result of the LM test with a chibar2 significant of 0.1483 suggests that OLS regression model best suits the study which leads this work to run for HACC model that correct for heteroscedasticity and Auto-correlation which is meant to be suitable. The result of the test reveals that there is no presence of heteroscedasticity because the hetttest ch2 is 1.36 with a probability of 0.2430 which is not statistically significant at 5%, indicating that the data are homoscedastic. This suggests that the normal OLS regression suits the study.

### 4.5 Presentation, Analysis, and Discussion of Regression Results

This section presents the regression result of the dependent variable (real earnings management, REM) and all the independent and control variables of the study. The regression model of the study is presented in the table below:

#### Table 4.4: Summary of the Regression Result (OLS)

| Variables | Model (EM) Coefficient | T       | P>|t|   |
|-----------|------------------------|---------|---------|
| Constant  | -0.8914609             | -6.48   | 0.000   |
| BS        | -0.0061836              | -1.74   | 0.084   |
| BMA       | 0.0028547               | 2.50    | 0.013   |
| BM        | 0.0114604               | 1.51    | 0.133   |
| BF        | -0.0012303              | -2.66   | 0.008   |
| BGD       | 0.0006702               | 0.95    | 0.345   |
| FG        | 0.0157471               | 0.40    | 0.692   |
| FA        | -0.0000865              | -0.20   | 0.841   |
The probability of the F statistics is the measurement of the overall significance of the model, the F statistics must be the sequel for the model to be valid, concerning the model in Table 4.4, the F statistics has a value of 0.0000 which is significant at 5% levels of significance. Where Table 4.4 shows that the cumulative $R^2$ of the ordinary least square (OLS) is 0.3439, and the multiple coefficients of determination give the proportion or percentage of the total variation in the dependent variable (EM) as explained by the independent variables and control variable (board size, board meeting attendance, board meeting, board financial expertise, board gender diversity firm growth, firm age and firm size) jointly. Hence, it signifies 34.39% of the total variation in earnings management (EM) in listed consumer goods companies in Nigeria is caused by board size, board meeting attendance, board meeting, board financial expertise, board gender diversity firm growth, firm age and firm size. Table 4.4 indicates that the model is fit, variables properly selected, combined, and used in the study, this is statistically supported by the Fishers’ statistics with p-values of Sig 0.0000. Furthermore, Table 4.4 shows that there is a negative significant relationship between board size, board financial expertise and earnings management of listed consumer goods companies in Nigeria. This is observed from the coefficient beta of -0.0061836 with a p-value of 0.084 for board size and coefficient of -0.0012303 and p-value of 0.008 for board financial expertise which are significant at a 10% level of significance. This indicates that the size of board members and board members with expertise in finance has negative significant impacts on the real earnings management of listed consumer goods companies in Nigeria. This result implies that larger boards and directors with expertise in finance guarantee qualitative financial information of the listed companies and thus reduce the level of earnings management. Too many members on the board with the requisite industry experience, expertise in finance and a passion for their work will be able to detect and prevent managers from engaging in opportunistic accounting which reduces real earnings management. This finding is in with those Chude & Chude (2023), Attia, et al. (2022) Hemathilake, et al. (2019), and Amin, et al. (2017), but contradicts the findings of Abiodun (2020), Chinedu and Augustine (2018), and Abubakar et al. (2017). However, Table 4.4 shows insignificant relationship between board meeting, board gender diversity and earnings management with a p-value of 0.133 at 10% level of significance, with a coefficient of 0.1103 for board meeting and p-value of 0.345 at 10% level of significance, with coefficient of 0.0006702 for board gender diversity. This implies that the board meeting and gender diversity of listed consumer goods companies in Nigeria, has no significant impact on possibility of managers to engage in earnings.
management. The above findings are, however, consistent with that of Florence, et al. (2018) and Abiodun (2020), but not in line with Attia, et al. (2022), Abubakar et al. (2017), Amin, et al. (2017), Abiodun (2020), Abubakar et al. (2017), and Kankanamage (2015), who also established a significant association.

Also, Table 4.4 reveals that board meetings attendance has a significant positive association with earnings management of listed consumer goods companies in Nigeria at 5% level of significance. This is observable from the coefficient of 0.0028547 and t-value of 2.50 with a corresponding p-value of 0.013. This implies that a high level of attendance of meetings by the board of directors distorts the prevention of managers to manage earnings for private gains which will increase earnings management in the listed consumer goods companies in Nigeria. This finding did not concur with the studies expectation because loopholes created by managers to engage in the management of earnings will be identified and closed up when directors attend the meeting but on the other hand, high attendance of meetings will prevent directors from making the right decisions as many opinions will be given and level of real earnings management will increase.

5. **Conclusion**

The following are the conclusions that are drawn from the findings of the study:

i. Board of directors’ characteristics particularly board size was found to be important monitoring and control mechanisms for reducing and detecting earnings management and deterring managers’ opportunistic behavior.

ii. Board features like board meetings attendance do not help in preventing abusive accounting practice (earnings management) of listed consumer goods companies in Nigeria.

iii. Board meeting and board gender diversity was found to be less effective in restraining managers’ manipulative accounting behavior and reducing real earnings management in consumer goods companies listed in Nigeria.

iv. Board financial expertise was also found to be important monitoring and control mechanism for reducing and detecting earnings management and deterring managers’ opportunistic behavior.

Based on the findings and conclusion drawn, the following recommendations are proffered:

i. The management of listed consumer goods companies should consider maintaining an optimal board size that allows for effective decision making and oversight to reduce the level of earnings manipulations.

ii. The management of listed consumer goods companies should ensure that board members are engaged and regularly attend board meetings to effectively oversee financial management and reduce the likelihood of earnings management.

iii. The management of listed consumer goods companies should ensure the appointment of more women on board to positions that can increases the perspectives and decision-making processes, potentially reduces the likelihood of earnings management.

iv. The board of the consumer goods companies listed in Nigeria should give much emphasis on inviting directors who are finance experts when considering any specific issue, because the result of this study proved that, directors with expertise in finance are playing important role in reducing real earnings.
management of consumer goods companies listed in Nigeria. 

v. FRCN, SEC, and NSE should ensure that listed consumer goods companies in Nigeria strictly adhere to the code of best practice so that the interest of various stakeholders would be fully protected.

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