Effect of Board Attributes and Ownership Structure on Financial Reporting Timeliness of Listed Consumer Goods in Nigeria

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Abstract

The study examined effect of board attributes and ownership structure on financial reporting timeliness of listed consumer goods in Nigeria. The research design was Ex post facto research design. This study used the entire 20 listed firms of consumer goods quoted on Nigeria’s equity market as at 31st December 2020 as its population. The study made use of purposive sampling technique. The sample size used is eleven (11). The period of the study was from 2011 to 2020. This study used panel data because the observations contain both time series and cross sectional units. Hence, panel multiple regressions. Findings revealed that board size, board meeting, foreign ownership and managerial ownership have positive but statistically insignificant effect on financial reporting timeliness of listed consumer goods in Nigeria. While, board of directors’ diversity and board independence have positive and statistically significant effect on financial reporting timeliness of listed consumer goods in Nigeria. The study concludes that both board of directors’ diversity and board independence have effect on financial reporting timeliness, while board size, board meeting, foreign ownership and managerial ownership have no effect on financial reporting timeliness of quoted consumer goods in Nigeria. The study recommends the mandatory presence of non-executive directors in the composition of board of directors, most importantly in limited liability companies.

Keywords: Ownership Structure, Board of Directors, Positive Accounting Theory, Board Independence, Managerial Ownership.

1. Introduction

Recent financial crises, economic collapses, and the fall of giant corporations due to accounting fraud and governance irregularities have brought corporate governance to the limelight, especially with regard to the role of the Board of Directors. The board of directors plays a crucial role in corporate governance especially with regard to board characteristics such as; composition, size, diversity and the frequency of meetings (Abed, Bataineh, & Suwaidan, 2020: Al-Muzaiqer, Ahmad, & Hamid, 2018: Akhor, & Oseghale, 2017: Akinleye,

The board of directors, as the core of corporate governance, will undoubtedly play a key role in supervising companies’ financial reporting process. Strengthening the board of directors, such as enhancing the board’s independence will improve its capabilities of detecting problems in financial statements, and clarifying explicitly directors’ responsibilities, is regarded as an efficient way to ameliorate the corporate governance practices which contributes to financial reporting timeliness.

The significance of financial information depends on the amount of time assigned to prepare and submit to the stakeholders and decision makers. External auditors in an audit report will always disclose that management of a company is responsible for the timeliness of financial reporting for preparation of annual reports. The timeliness represents the usefulness of corporate reporting due to its close tie with huge opportunities it provides for stakeholders who effectively integrate the disclosed information into their decision-making (McGee, & Yuan, 2012: Abdullah, 2007).

Timeliness of financial reporting means having information available to users promptly so as to be able to influence their decision positively. Generally, the older the information is, the less useful it is. Financial timeliness demands that financial information is available to users as quickly as possible. Timely reporting of financial statements significantly decreases insider trading and information asymmetry between firm management and shareholders.

Board attributes are those board characteristics that influence board composition, which includes age, diversity, board meeting, board independence, gender diversity and board size.

Financial timeliness demands that financial information is available to users as quickly as possible. The timelier financial reports are, the more the advantages derived (Efobi & Okougbo, 2014: Haldar, & Mishra, 2016: Ibadin, & Dabor, 2015: Iyoha, 2012: Mathuva, Tauringana, & Owino, 2019: Rahmawati, 2018). Deficiency of financial reporting timeliness leads to greater market inefficiency. Creditors, shareholders and investors cast doubts on the quality of financial statements when firms delay in disclosing its financial statements, and the consequence of this is irrational investment decisions.

Based on review of previous studies, some disturbing trends persist with regards to the time taken to release company’s financial statements; the fastest reporting company quoted on the Nigerian Stock Exchange (NSE) uses an average of 122 days, while some take as long as 304 days and these lags are way beyond the 90 days stipulation by Security Exchange Commission (SEC). Even when technological advancement has transformed the professional skills of all Accountants, there is a presumption in the empirical literature that audit report lag is a primary cause of financial reporting delay. Consequential expectations would include improvements in the timing of the audit report and the reporting of financial information (Saleh, Wan & Basariah, 2019).
Most of the studies that examined board attributes on financial reporting timeliness in Nigeria paid little attention on board of directors’ diversity. Furthermore, several studies have been conducted on effect of board attributes on timeliness of financial reports such as Eslami, Armin and Jaz (2015); Lukason and Camacho-Minano (2020); Bakare, Taofiq and Jimoh (2018); Bean and Bernardi (2001); Al Daoud, Ismail and Lode (2017). To the best of my knowledge, there is little or no study in Nigeria that has examined the combined effect of both board attributes and ownership structure on financial reporting timeliness as at the period of this study.

The motivation for this study is regulatory based; this study will serve as an input to regulatory bodies for effective board characteristics inclusion and efficient timeliness of financial reporting.

Concept of Ownership Structure, Financial Reporting Timeliness and Board Attributes

Ownership structure represents ownership concentration. Hashim (2017) opined that ownership concentration as the participation of managers and foreigners in ownership of equity instrument of an entity. It involves the presence of outside stakeholders. According to the author, it could be investment from a group or institution. Managerial and foreign ownership of large portion of equity tend to produce effective strategic management participation, it ensures actualization of strategic plans, and it results to robust decision making.

Lukason and Camacho-Minano (2020) defined financial reporting timeliness as the ability of managers to meet the submission deadlines of financial statement set by law. Oraka, Okoye and Ezejiofor (2019) postulate financial reporting timeliness as the period between entities’ accounting year end and the publication of the financial report to the users of accounting information. The author noted that audit lag (number of days between the accounting year end and the date the external auditor signs on the financial statement) and the annual general meeting delay are the major setbacks to financial reporting timeliness.

Board attributes are those board characteristics that influence board composition. Mehdi and Shiva (2015) defined board characteristics as those attributes that influence board structure which includes age diversity, board meeting, board independence, gender diversity and board size. Elad, Wong and Bongbee (2018) noted that board characteristics as those features found in the board of directors which are board composition, Board size, board diversity, committee structure, the frequency of board meetings, styles, structure, processes, activities and their relationship. Board characteristics are instrumental towards the effective implementation of the principle of corporate governance in any company.

Qinghua, Pingxin and Junming (2007) categorized board characteristics into three quantifiable groups: composition characteristics (including board independence and board size), expertise characteristics, and behavior characteristics. Composition characteristics have to do with board independence. Classical governance theory assumes that since outside directors (independent directors) have inner motives to perform their supervision duties so as to maintain and develop their own reputations in market, the introduction of independent directors to board will improve the board’s supervision efficiency over managerial personnel.
For expertise characteristics, it is those financially qualified independent directors (or active organization investors) that actually enhance the board’s supervision efficiency over financial fraud. Variables concerning board behavior characteristics mainly include board meeting frequency within a year, explicit responsibilities of financial reporting supervision, and share ratio of the board.

Board characteristics are those attributes that influence board formation, and these include age diversity, board meeting, board independence, gender diversity and board size. Board size represents the total number of board members. Larger board size is characterized with more diversified backgrounds and there is wide distribution of duties. The board could be more focused on the financials of the company, causing more accurate data to be disclosed, and in turn, shortening the audit report lag. However, larger boards have difficulties with coordination which translates into a longer audit report delay. Board meeting represents the number of board meetings held by board members. Board independence is measured based on the proportion of non-executive directors to the total directors. Board of directors’ diversity represents the number of female directors on the board.

**Board Size and Financial Reporting Timeliness**

Nehme, Assaker and Khalife (2015) argued that large board size may facilitate or hinder the work of an auditor. Larger board size is characterized with more diversified backgrounds and there is wide distribution of duties. The board could be more focused on the financials of the company, causing more accurate data to be disclosed, and in turn, shortening the audit report lag. Larger boards have difficulties with coordination which translates into a longer audit report delay. Findings show that there is a negative and significant relationship between board size and audit report lag.

Ahnaf (2018) examined the board of directors’ characteristics and ownership type on the timeliness of financial reports. The author argued that agency theory frown at large board size, a board size greater than eight suffers from monitoring deficiency and it is less effective. Data were collected from 68 annual reports of listed companies on Amman Stock Exchange (ASE) for the period between 2011 to 2015. Findings revealed that there is no significant effect of board size on financial reporting timeliness. A board with less than eight members has a negative effect and one with more than eight shows a positive effect on financial reporting timelines.

Imen and Anis (2016) did a study on audit reporting timeliness in Tunisia. The authors noted that large board size promotes monitoring and effective strategic decisions, however, the drawback hinges on communication and coordination of large board size. The study period was from 2006 to 2013. The study used 28 Tunisian companies listed on the Tunisian stock exchange. Findings revealed that board size has effect on timeliness of financial reports. However, the study of Mehdi and Shiva (2015) discovered that board size has no significant relationship with financial reporting timeliness.

Bakare, Taofiq and Jimoh (2018) studied the effect of board characteristics on timeliness of financial reporting of listed insurance firms in Nigeria. One of the independent proxies was board size. Correlation research design was used. The population of the study comprised of the 28 listed insurance firms and the sample size was fifteen (15) listed insurance firms in
Nigeria. The technique for data analysis was multiple regression. The result revealed that board size has a positive and significant effect on the timeliness of financial reporting of listed insurance firms in Nigeria. This means that as board size increases, financial reporting lag increases.

The study of Eslami, Armin and Jaz (2015) was on the effect of corporate governance on the timeliness of financial reports of listed firms on Tehran stock exchange. The authors noted that the presence of corporate governance structure will reduce both wrong reporting and financial reporting lag. It also minimizes the occurrence of management misbehavior. The study made use of 90 firms listed in Tehran stock exchange. The study period was from 2010 to 2014. The technique for data analysis was multiple regression analysis.

Findings revealed that board of directors’ size has positive and significant effect on financial reporting timeliness. In other words, audit and management reports lag influence the timely availability of financial statement.

The study of Lukason and Camacho-Minano (2020) was on corporate governance characteristics of private SMES’ annual report submission violations. They opined that the presence of a large number of directors implies a reduction of the board’s effectiveness; on the contrary, a larger board will bring together a greater depth of intellectual knowledge, and therefore, could improve the quality of strategic decisions. An additional director could bring more human capital to the company, therefore increasing the board’s information and specific knowledge about the business and its environment. Most importantly, it will increase the firm’s efficiency; and above all, an effective board breed’s better disclosure practices.

The study used a total population of 77,212 SMES firms from Estonia, the technique for data analysis was regression analysis. Findings revealed that there is no significant relationship between board size and the private SMES’ annual report submission violations.

Elad, Wong and Bongbee (2018) noted that it is generally assumed that large boards bring a wide range of access to expertise and resources and likewise management oversight. They have ideal board size in two categories; complex firms and simple firms. The authors further observed that the size of the board has an impact on its orientation and effectiveness. Complex firms tend to have large boards which often results in higher performance.

**Board Meeting and Financial Reporting Timeliness**

Nehme, Assaker and Khalife (2015) argued that a board with a high frequency of meetings is more knowledgeable of the company’s operations and finances. Accordingly, the board could be more helpful in facilitating the audit of the financial statements. In turn, this makes the audit report lag to shorten. The result revealed that frequency of meetings has positive but statistically insignificant relationship with audit report lag.

The study of Soyemi, Sanyaolu and Salawu (2019) noted that board frequent meetings enable board members to deliberate on issues that are likely to promote the company. Furthermore, the frequency of meetings facilitate timely audited report, hence, it reduces reporting lag. The study used 21 non-financial firms listed on the Nigerian stock exchange (NSE) while the technique for data analysis was regression. Findings revealed an insignificant and negative effect of board meetings on audit report lag.
A variable from the study of Bakare, Taofiq and Jimoh (2018) focused on board meeting. Findings from the result disclosed that board meeting has a significant effect on timeliness of financial reporting. In other words, the meeting held by the directors should be reduced so that the executive directors can focus well on their managerial responsibilities. Ahmed and Che-Ahmad (2016) argued that frequent board meetings evidence good corporate governance and it results to lower risk and higher stock returns. Findings from the study revealed that board meeting has positive and significant association with audit report lag. Elad, Wong and Bongbee (2018) agreed that the frequency of board meetings is considered to be of significance in improving board performance and effectiveness. The frequency of board meetings keeps directors abreast about vital developments within the firm hence, reducing information asymmetry; it enables the board in strategic formulation and evaluating management’s performance. Also, the board responds promptly to emerging problems facing the firm. Frequent board meetings further strengthen the cohesiveness within the board. During a financial crisis, firms with a poor meeting attendance significantly underperform compared to firms with frequent meetings. However, frequent board meetings increase travel expenses, wastage of managerial time and lead to an increase in directors meeting expenses. Directors in most cases during such board meetings do not have the time to ask relevant questions as most of the time is used to present reports.

Clatworthy and Peel (2016) investigated the extent to which the timeliness of UK private companies’ accounting information reflects regulatory and economic influences, by studying the impact of a one month shortening of the statutory regulatory filing deadline. Using the financial reporting lag and propensity to file late as measures of timeliness, the result revealed that although reporting behavior is largely driven by regulatory deadlines, companies conjectured to be producing accounting information for reporting to outside investors publish their accounts significantly faster, and are substantially less likely to file beyond the statutory deadline (late), than their counterparts lacking similar incentives. However, in terms of this reporting lag differential, the change in regulation had a homogeneous impact. Further findings report a significant reduction in the mean and median filing time, but an increase of 46% in the proportion of firms filing late, in the year following the regulatory change.

Board of Directors Diversity and Financial Reporting Timeliness

The study of Ahnaf (2018) noted that mixed gender boards pool more innovation and talent on the board of directors, behavioral effects of gender differences could affect timeliness of financial reporting, this is because, women are less risk takers, and tend not to break the roles. The study found that board of directors’ diversity has significant effect on timeliness of financial reporting. Consequently, the presence of women on the board would afford the firm different ideas, views and experience.

One of the hypotheses in which Ahmed and Che-Ahmad (2016) examined was the effect of board gender on audit report lags. the study was on 14 banks. The study period was between 2008 and 2012. Findings revealed that board gender has significant positive association with audit report lag. Soyemi, Sanyaolu and Salawu (2019) noted that gender diversity may be
associated with the integrity of financial statements. This is because; the presence of female directors in the board has the tendency to enhance board performance. Findings revealed an insignificant and negative effect of gender diversity on audit report lag. Elad, Wong and Bongbee (2018) argued that gender is the most debated aspect of board diversity. There have been moves in some European countries like Italy and Spain to increase the number of women serving on the board. Board diversity plays a vital role in resource dependency by providing additional linkages to resources such as capital, corporate partners, suppliers and customers as a result of board diversity which serves various stakeholder needs. From a gender diversity standard, female directors tend to possess supplementary skills and perspective which male directors do not possess. Greater board diversity has the potentials of enhancing innovation capacity, ensuring a better understanding of diverse customers and enhancing global understanding.

Having female directors on the board has two principal advantages; female directors usually possess an understanding of customer needs and consumer expectation, and likewise, knowledge about the measures firms can take to meet customer expectations.

**Board Independence and Financial Reporting Timeliness**

Ohaka and Akani (2017) studied timeliness and relevance of financial reporting in Nigerian quoted firms. The authors noted that the major reason for late publication of annual reports by quoted firms is that, the accounts have to be audited before publishing. However, timeliness enhances decision making, reduce information asymmetry in the markets; promotes market discipline through reduction in information leakages and truncate insider abuses. The study period was from 2000 to 2011, and the technique for data analysis was multiple regressions. The result revealed that board independence has no significant relationship with timeliness and relevance of financial reporting.

The study of Imen and Anis (2016) noted in their study that board independence is measured based on the proportion of non-executive directors to the total directors, and that the essence of board independence is to prevent financial frauds through effective monitoring of managerial activities. The result revealed that board independence has significant effect on financial reporting timeliness. Abdullah (2007) did a study on board composition, audit committee and timeliness of corporate financial reports in Malaysia. Data was gotten from bursa Malaysia main board (stock exchange), and the period of the study was from 1998 to 2000. Findings revealed that board independence has positive and significant effect on timeliness of corporate financial report.

Mehdi and Shiva (2015) studied the relationship between board characteristics and timing of financial reporting. The study used data of 128 firms listed at Tehran stock exchange for the study period was from 2005 to 2011 and the data used was panel data and the technique for data analysis was ordinary least square regressions. The result revealed that there is a positive relationship between board independence and financial reporting timeliness. However, the study of Eslami, Armin and Jaz (2015) discovered that board independence has no effect on financial reporting timeliness.
Al Daoud, Ismail and Lode (2017) examined the relationship between board independence and the timeliness of annual financial reports among Jordanian companies. The authors noted that board independence could provide more effective and efficient audit, thereby reducing the audit report lag. Independent directors derive no benefit from delayed or selective disclosures, which will not enhance financial reporting timeliness. Moreover, the independence of a board is related to a high quality of auditors. Boards with a high percentage of independent directors employ specialized auditors than the less independent boards. In contrast, the presence of independent directors leads to intensive scrutiny of financial statement, hence, longer financial report lag. The study was on 114 listed companies on the Amman stock exchange for the year 2012. The result reveals that there is no positive and significant relationship between board independent and the timeliness of financial reporting. Also, that the firms, on average, take more than two months to complete the audit of financial reporting.

Nehme, Assaker and Khalife (2015) assert that independence of the board is an important feature for the smooth and efficient functioning of the board. Hence a board a comprised mostly of independent directors facilitates the auditor’s work and shortens the audit report lag. The study measured board of directors’ independence by the proportion of independent directors (non-executive directors) to the total directors in the board. Non-executive directors are board members with no business relationship with the company. They also have requisite skills and above all, they act in the best interest of the shareholders. The result revealed that board of directors’ independence has positive but statistically insignificant relationship with audit report lag.

Elad, Wong and Bongbee (2018) assert that an independent non-executive director is one who does not occupy any post of responsibility in the firm and has no stakes and affiliation in the firm. They further noted that boards tend to be more independent with a proportionate increase of outside directors. Furthermore, the effect of board independence through the presence of independent board members has a positive impact on the overall wealth of shareholders and in disciplining corporate executives.

The agency theory equally lends credibility to the argument in favour of having independent directors on the board. The agency theory emphasizes that, because of the separation between ownership and control, managers tend to pursue their personal aims at the detriment of shareholders. Therefore, the independent non-executive board members perform an oversight and monitoring in curbing management’s excesses.

**Foreign Ownership and Financial Reporting Timeliness**

Basuony, Mohamed, Hussain and Marie (2016) studied board characteristics, ownership structure and audit report lag in the Middle East. The study made use of 201 companies and the study period was from 2009 to 2013. The technique for data analysis was ordinary least square and ridge regression analysis. Findings revealed that foreign ownership has positive and significant effect on audit report lag.
The study of Hashim (2017) posit that foreign ownership tends to guide management from non-value maximizing activities, and that higher proportion of foreign shareholders could influence a company to disclose significantly more information in their annual reports. Findings revealed that there is a negative and insignificant impact of foreign ownership on audit report lag. The study of Ahnaf (2018) opined that foreign ownership concentration will lead to a higher control, and less timely annual reports. However, less concentrated and widely dispersed ownership is expected to have better financial reporting timeliness. Findings showed that foreign ownership has a positive and significant effect on timeliness of financial report.

Managerial Ownership and Financial Reporting Timeliness

The study of Hashim (2017) was to ascertain whether ownership characteristics have any impact on audit report lag in Malaysia. The author argued that as soon as managers own some portion of shares in a company, it will induce managers to ensure that the company’s performance is maximized likewise the share value. Managers will engage in an opportunistic behavior if they hold small fraction of shares of a company. The author further argued that an increase in management ownership will reduce agency problems and managers will become more transparent on company’s reports. The result showed that there is a positive and significant impact of managerial ownership on audit report lag. According to the author, it means that as managerial ownership increase, audit reporting lag also increases.

The study of Ahnaf (2018) deduced that managers may use information asymmetry for their advantage, if they hold little or no equity in that entity. If this happens, the agency cost will increase to monitor the managers. Moreover, this affects information disclosure and the timeliness of releasing financial statements which will give a distorted image of the company. The result revealed that management ownership has no significant effect on timeliness of financial report.

2. Theoretical Framework

Positive Accounting Theory (PAT)

The positive accounting theory (PAT) is an accounting theory that examines self-interest. This theory opined that managers pay attention to variables that will maximize manager’s wealth as against shareholders wealth maximization. This accounting theory was developed by Watts and Zimmerman (1986). They used the theory to explain accounting practice. Basically, this accounting theory centers on the evaluation and examination of accounting behavior. Kabir (2015) noted that positive accounting theory constitutes studies of accounting choices and auditing practices.

Salah (2010) argued that this theory speculates that managers are driven on the premises of self-seeking. It is against this backdrop that stringent systems and procedures were developed to ensure that there is an alignment between the shareholders objectives and that of the
managers. Managers use the flexibility in accounting standards and accounting methods to undertake earnings management and this will portray efficient utilization of resources (stewardship accounting), as against the contrary. This earnings management often affects financial reporting timeliness.

Salah (2010) identified three hypotheses to positive accounting theory (PAT). The first is the reward hypothesis, the second is gearing hypothesis (this hypothesis used the proportion of debt to equity to measure the gearing hypothesis). The third hypothesis is called the political cost. The reward hypothesis states that managers will use accounting standards and accounting methods to prepare financial statement that will increase the underlined profit reported by managers. This hypothesis examines how managers increase manager’s bonuses using the flexibility in accounting practice.

The gearing hypothesis opined that as gearing increases, managers will also ensure that the profit for the period increases. Flexibility of accounting methods is used to increase the profit. The third hypothesis (political cost) examines the relationship that exists between the use of accounting methods and board characteristics. The hypothesis argued that as board size increases, there will be decline in the use of accounting methods and if board size decreases the use of accounting methods increases.

Kabir (2015) discussed two difficulties of positive accounting theory (PAT). First, he argued that if we have the same circumstances or conditions, two persons will act differently. Secondly, social science laws are different from natural science because natural science laws are more specific than that of social science laws. This theory argued that the stimulus to financial reporting timeliness stems from the hypothesis above, see Salah (2010) (i.e., reward hypothesis, gearing hypothesis and the hypothesis that comes as a result of political cost). The enormity of financial reporting timeliness depends on the attitude of managers in achieving goal congruence objectives.

**Research Methodology**

Ex post facto research design was used in this study. This study used the entire 20 listed firms of consumer goods quoted on Nigeria’s equity market as at 31st December 2020 as its population. The study made use of purposive sampling technique. The criteria used for selection were: first, accounting year end of each firm should not change during the study period. Secondly, each firm shares must be traded during the study period. Thirdly, data of selected firms should be available for the period 2011 to 2020. The sample size used is eleven (11). The period of the study was from 2011 to 2020. Secondary data extracted from the listed firms of consumer goods quoted on the Nigeria’s stock market and used to ascertain how the independent variables affect the dependent variable. This study used panel data because the observations contain both time series and cross sectional units. Hence, panel multiple regressions.

**Measurement Parameters for Dependent and Independent Variables**
Financial Reporting Timeliness = Number of days from the financial year end to the date of publication of annual report
Board Size = Total number of board members.
Board Meeting = Number of board meeting held by board members
Board of Director Diversity = Number of female directors on the board
Board Independence = Ratio of non-executive directors to the board size
Foreign Ownership = Percentage of shares owned by foreign shareholders to total number of shares issued
Managerial Ownership = Percentage of shares owned by executive directors to total number of shares issued

Panel data analysis offers a combination of regression and time series data type. It includes both cross-sectional and time series dimensions for each individual. This makes it possible to study a dynamic aspect of the problem (Imen & Anis, 2016; Eslami, Armin & Jaz, 2015; Ahmed & Che-Ahmad, 2016; Mehdi & Shiva, 2015; Hashim, 2017)

A Panel Data Regression Model with Q Variables displayed as:
\[ Y_{it} = \beta_1 + \beta_2 X_{2it} + \beta_3 X_{3it} + \cdots + \beta_n X_{nit} + u_{it} \] .................................(1)
In the Model 1,1,2,...,n shows cross section and T=1,2,...,n shows time periods. Also, \( u_{it} \) is assumed to be zero mean and constant variance. There are more parameters predicted than observations. Therefore, Model cannot be predicted in this form and it should be reconstructed.

In order to do that, there have to be some assumptions made to have the models known as fixed effects and random effects. Firstly, we assume all regression coefficients are equal to common units; then model can be shown;
\[ Y_{it} = \beta_1 + \beta_2 X_{2it} + \beta_3 X_{3it} + \cdots + \beta_n X_{nit} + u_{it} \] ..................................................(2)
\( \beta_1 \) is a common intercept for all units and \( \beta_2, \ldots, \beta_q \) parameters are common marginal effects of each explanatory variable. In other words, \( \beta \) parameters show no difference between units and times. This model is also known as fixed effects model. Random effects model is the different form of fixed effects model regarding intercept. Random effects intercept term is modeled as \( \beta_1 = \beta_1 + \mu_i \) and the Model is shown as \( \beta_1 \). In order to present which model is superior, Hausman test is the analysis of the different models.
\[ Y_{it} = (\beta_1 + \mu_i) + \beta_2 X_{2it} + \beta_3 X_{3it} + \cdots + \beta_n X_{nit} + u_{it} \] ...........................................................(3)
\[ Y_{it} = \beta_1 + \sum_{n=2}^{N} \beta_n X_{nit} + (u_{it} + \mu_i) \] ...........................................................(4)

The model below represents the regression equation used in this study
\[ FRTit = f (BSIZEit, BMit, BDDit, Blit, FOit, MOit, \mu_{it}) \] ............................................(5)
The above model can also be written as
\[ FRTit = \beta_0 + \beta_1 BSIZEit + \beta_2 BMit + \beta_3 BDDit + \beta_4 Blit + \beta_5 FOit + \beta_6 MOit + \mu_{it} \] .................(6)

Where
FRT = Financial Reporting Timeliness
BSIZE = Board Size
BM = Board Meeting
BDD = Board of Director Diversity
BI = Board Independence
FO = Foreign Ownership
MO = Managerial Ownership
\( \beta \) = coefficient of the parameter
\( \text{it} \) = Time Coefficient
\( \mu \) = Error Term

3. Data Analysis and Results

The technique for data analysis was Panel multiple regression. This study conducts Diagnostic Test. The test includes: fixed effect and cross section random effect test, hausman test, heteroskedasticity test, and variance inflation factor test.

Table 1

<table>
<thead>
<tr>
<th>Financial Reporting Timeliness</th>
<th>Board Size</th>
<th>Board meeting</th>
<th>Board of Directors Diversity</th>
<th>Board Independence</th>
<th>Foreign Ownership</th>
<th>Managerial Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.500348</td>
<td>1.137937</td>
<td>3.627273</td>
<td>3.245455</td>
<td>0.606965</td>
<td>0.641709</td>
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<tr>
<td>Median</td>
<td>0.477121</td>
<td>1.161110</td>
<td>4.000000</td>
<td>3.000000</td>
<td>0.600164</td>
<td>0.648868</td>
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<tr>
<td>Maximum</td>
<td>0.602060</td>
<td>1.397940</td>
<td>4.000000</td>
<td>4.000000</td>
<td>0.721808</td>
<td>0.724171</td>
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<tr>
<td>Minimum</td>
<td>0.301030</td>
<td>1.000000</td>
<td>3.000000</td>
<td>2.000000</td>
<td>0.415984</td>
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<tr>
<td>Std. Dev.</td>
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<td>0.105265</td>
<td>0.485743</td>
<td>0.693169</td>
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<tr>
<td>Skewness</td>
<td>-0.738168</td>
<td>0.348200</td>
<td>-0.526431</td>
<td>-0.365049</td>
<td>-0.297195</td>
<td>-0.945631</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.676308</td>
<td>2.437172</td>
<td>1.277130</td>
<td>2.110280</td>
<td>3.390335</td>
<td>3.978231</td>
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<tr>
<td>Probability</td>
<td>0.005327</td>
<td>0.159240</td>
<td>0.000088</td>
<td>0.048044</td>
<td>0.313861</td>
<td>0.000031</td>
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<td>Sum</td>
<td>55.03824</td>
<td>125.1731</td>
<td>399.0000</td>
<td>357.0000</td>
<td>66.76612</td>
<td>70.58801</td>
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<td>1.108005</td>
<td>1.207807</td>
<td>25.71818</td>
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<td>110</td>
<td>110</td>
<td>110</td>
</tr>
</tbody>
</table>

The above table shows the descriptive statistics.
Table 2

<table>
<thead>
<tr>
<th></th>
<th>Financial Reporting Timeliness</th>
<th>Board Size</th>
<th>Board Meeting</th>
<th>Board of Directors Diversity</th>
<th>Board Independence</th>
<th>Foreign Ownership</th>
<th>Managerial Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Reporting Timeliness</td>
<td>1.000000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board Size</td>
<td>0.222836</td>
<td>1.000000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board Meeting</td>
<td>-0.035389</td>
<td>-0.080686</td>
<td>1.000000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board of Directors’ Diversity</td>
<td>0.992782</td>
<td>0.208595</td>
<td>-0.052761</td>
<td>1.000000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board Independence</td>
<td>0.197889</td>
<td>-0.239860</td>
<td>0.170891</td>
<td>0.168843</td>
<td>1.000000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Ownership</td>
<td>0.106289</td>
<td>-0.190987</td>
<td>0.051797</td>
<td>0.075283</td>
<td>0.791208</td>
<td>1.000000</td>
<td></td>
</tr>
<tr>
<td>Managerial Ownership</td>
<td>0.048913</td>
<td>-0.155475</td>
<td>0.020227</td>
<td>0.034960</td>
<td>0.699392</td>
<td>0.556447</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

The above table represents the correlation matrix.

The relationship between board size and financial reporting timeliness is 22%.
Board meeting and board of directors’ diversity are -4% and 99% respectively.
The relationship between board independence and financial reporting timeliness is 20%, this signifies low relationship.
Foreign ownership and financial reporting timeliness is 11%, this is also low.
Finally, the relationship between managerial ownership and financial reporting timeliness is 5%.

Table 3.

**Variance Inflation Factors**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient Variance</th>
<th>Uncentered VIF</th>
<th>Centered VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board Size</td>
<td>0.000126</td>
<td>135.8040</td>
<td>1.141862</td>
</tr>
<tr>
<td>Board Meeting</td>
<td>5.61E-06</td>
<td>62.24187</td>
<td>1.086726</td>
</tr>
<tr>
<td>Board of Directors diversity</td>
<td>2.91E-06</td>
<td>26.53627</td>
<td>1.147627</td>
</tr>
<tr>
<td>Board Independence</td>
<td>0.001247</td>
<td>384.7068</td>
<td>4.233853</td>
</tr>
<tr>
<td>Foreign Ownership</td>
<td>0.000966</td>
<td>332.2250</td>
<td>2.762912</td>
</tr>
<tr>
<td>Managerial Ownership</td>
<td>3.517870</td>
<td>104.2421</td>
<td>2.038794</td>
</tr>
<tr>
<td>C</td>
<td>0.000439</td>
<td>363.1176</td>
<td>NA</td>
</tr>
</tbody>
</table>

Multicollinearity test is to check whether there is effect between the independent variables which can mislead the result of the study. This study formally substantiates the absence of multicollinearity between the independent variables with the use of Variance Inflation
Factors (VIF). Since the Variance Inflation Factors (VIF) is less than 10, then there is no Multicollinearity between the Exogenous Variables (Basuony, Mohamed, Hussain & Marie, 2016).

Table 4

<table>
<thead>
<tr>
<th>Heteroskedasticity Test: Breusch-Pagan-Godfrey</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
</tr>
<tr>
<td>Obs*R-squared</td>
</tr>
<tr>
<td>Scaled explained SS</td>
</tr>
</tbody>
</table>

The above table represents the heteroskedasticity test. This test is conducted to check whether the variability of error is constant or not. One of the assumptions of linear regression is that there must be constant variance. The Breusch-Pagan-Godfrey Test was employed to check whether this assumption was violated or not. The observed R-square of 54.26 and probability of 16% indicates that the variability of error will not affect the result.

Table 5

<table>
<thead>
<tr>
<th>Correlated Random Effects - Hausman Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equation: Untitled</td>
</tr>
<tr>
<td>Test Cross-Section Random Effects</td>
</tr>
<tr>
<td>Test Summary</td>
</tr>
<tr>
<td>Cross-Section Random</td>
</tr>
</tbody>
</table>

Hausman test assists to choose between fixed effect and cross section random effect from the ordinary least square regression. If the probability is below 5%, use fixed effect, otherwise use the cross section random effect. Since the probability of 0.36% from the hausman test is lower than 5%, this study made use of the fixed effect.

Table 6

<table>
<thead>
<tr>
<th>Dependent Variable: Financial_Reporting_Timeliness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method: Panel Least Squares</td>
</tr>
<tr>
<td>Date: 07/01/21 Time: 14:53</td>
</tr>
<tr>
<td>Sample: 2011 2020</td>
</tr>
<tr>
<td>Periods included: 10</td>
</tr>
<tr>
<td>Cross-Sections included: 11</td>
</tr>
<tr>
<td>Total Panel (Balanced) observations: 110</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>T-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board Size</td>
<td>0.002538</td>
<td>0.015395</td>
<td>0.164858</td>
<td>0.8694</td>
</tr>
<tr>
<td>Board Meeting</td>
<td>0.001033</td>
<td>0.002349</td>
<td>0.439720</td>
<td>0.6612</td>
</tr>
<tr>
<td>Board of Director Diversity</td>
<td>0.139352</td>
<td>0.0020146</td>
<td>69.19987</td>
<td>0.0000</td>
</tr>
<tr>
<td>Board Independence</td>
<td>0.109395</td>
<td>0.049671</td>
<td>2.202371</td>
<td>0.0301</td>
</tr>
</tbody>
</table>
Effects Specification
Cross Section Fixed (Dummy Variables)

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Ownership</td>
<td>0.044881</td>
<td>0.054390</td>
<td>0.089748</td>
<td>0.9287</td>
</tr>
<tr>
<td>Managerial Ownership</td>
<td>10.61536</td>
<td>6.668006</td>
<td>1.591984</td>
<td>0.1148</td>
</tr>
<tr>
<td>C</td>
<td>-0.090959</td>
<td>0.028835</td>
<td>-3.154465</td>
<td>0.0022</td>
</tr>
</tbody>
</table>

| R-Squared                  | 0.99012 |
| Mean dependent Variables   | 0.500348 |
| Adjusted R-Squared         | 0.98842 |
| S.D dependent variables    | 0.100823 |
| S.E. of Regression         | 0.01084 |
| Akaike info criterion      | -6.068450 |
| Sum squared residual       | 0.01094 |
| Schwarz criter             | -5.651103 |
| Log likelihood             | 350.764 |
| Hannan-Quinn criter        | -5.899172 |
| F-statistic                | 582.647 |
| Durbin-Watson Stat         | 0.831911 |
| Probability (F-Statistic)  | 0.00000 |

Where;
C = Constant (it shows the level of intercept or slope between the variables or proxies used in the study)
Std. Error = Standard Error (which is the square root of an estimate of the sampling variability)
T-Statistics= (it is the coefficient divided by its standard error)
Prob. = Probability
R-Squared= Square Root
SE= Standard Error

Decision rule: If the prob. value from the panel least squares is less than 5%, the independent proxy has effect on the dependent proxy, otherwise there is no effect.

Table 6 above shows the result from fixed effect.
From the panel least squares, the first result reveals that there is a positive but statistically insignificant effect of board size on financial reporting timeliness at a coefficient of 0.00 and a standard error of 0.02 with a t-statistic of 0.16. This result is statistically insignificant at 5% as the p-value of 0.87 is greater than 0.05. This study therefore, rejects the alternative hypothesis and accepts the null hypothesis that states that board size has no significant effect on financial reporting timeliness of listed consumer goods in Nigeria.

The second result indicates a positive but statistically insignificant effect of board meeting on financial reporting timeliness. The t-statistic is 0.44; standard error is 0.00 while the coefficient is 0.00. since p-value of 0.66 is higher than 0.05, the study accepts the null hypothesis that states that board meeting has no significant effect on financial reporting timeliness of listed consumer goods in Nigeria.

The third result shows a positive and statistically significant effect of board of directors’ diversity on financial reporting timeliness. This is because the p-value of 0.00 is less than 0.05 with a coefficient of 0.14. The standard error of board of directors’ diversity is 0.00, while the t-statistics is 69.20. Hence, the study accepts the alternative hypothesis that states board of directors’ diversity has significant effect on financial reporting timeliness of listed consumer goods in Nigeria.
From the fourth result, it shows a positive and statistically significant effect of board independence on financial reporting timeliness. The coefficient is 0.11; standard error is 0.05, while the t-statistic is 2.20. The p-value of 0.03 is less than 0.05. Hence, the study accepts the alternative hypothesis that states that board independence has significant effect on financial reporting timeliness of listed consumer goods in Nigeria.

The fifth result reveals that foreign ownership has positive but statistically insignificant effect on financial reporting timeliness. The coefficient is 0.00; standard error is 0.05, while the t-statistic is 0.09. The p-values of 0.93 is greater than 0.05. Hence, the study accepts the null hypotheses which state that foreign ownership has no significant effect on financial reporting timeliness of listed consumer goods in Nigeria.

The sixth result reveals that managerial ownership has positive but statistically insignificant effect on financial reporting timeliness. The coefficient is 0.10; standard error is 0.06, while the t-statistic is 1.60. The p-values of 0.11 is greater than 0.05. Hence, the study accepts the null hypotheses which state that managerial ownership has no significant effect on financial reporting timeliness of listed consumer goods in Nigeria.

The F-Statistics examines the overall significance of the regression model including all the variables. Therefore, by examining the overall fit and significance of the model, it could be observed that the model has a better fit since the Probability F-Statistics value of 0.00 is less than 0.05. The Adjusted R-Square of 0.99 indicates that 99% variation in financial reporting timeliness is explained by the variables captured in the study, while the remaining 1% is explained by other variables not included in the model.

4. Discussion of Findings

The first result reveals that, there is a positive but statistically insignificant effect of board size on financial reporting timeliness of listed consumer goods in Nigeria. From the result, it means that whether board size exceeds eight or is less than eight, it does not contribute to the delay of financial statement, likewise board meeting. This study is in line with that of Ahnaf (2018) that examined board of directors’ characteristics and ownership type on the timeliness of financial reports findings revealed that, there is no significant effect of board size on financial reporting timeliness. The study also is in line with the study of Lukason and Camacho-Minano (2020) that examined corporate governance characteristics of private SMES’ annual report submission violations. Findings revealed that there is no significant relationship between board size and the private SMES’ annual report submission violations.

The second result indicates a positive but statistically insignificant effect of board meeting on financial reporting timeliness of listed consumer goods in Nigeria. What this means is that, the frequency of board meeting is not a major determinant of financial reporting timeliness. This result agrees with the finding of Nehme, Assaker and Khalife (2015). Their result revealed that, frequency of meetings has positive but statistically insignificant relationship with audit report lag. Likewise, the study of Soyemi, Sanyaolu and Salawu (2019) found an insignificant effect of board meetings on audit report lag.
The third result shows a positive and statistically significant effect of board of directors’ diversity on financial reporting timeliness of listed consumer goods in Nigeria. What this means is that, mixed gender boards bring more innovation and talent on the board of directors. Behavioral effects of gender differences could affect timeliness of financial reporting. This is because; women are less risk takers and tend not to break the rules. This result conforms to the study of Ahnaf (2018) that found that board of directors’ diversity has significant effect on timeliness of financial reporting. Consequently, the presence of women on the board would afford the firm’s different ideas, views and experience. The study also agrees with the finding of Ahmed and Che-Ahmad (2016) that examined the effect of board gender on audit report lags and found that board gender has significant positive association with audit report lag.

The fourth result shows a positive and statistically significant effect of board independence on financial reporting timeliness of listed consumer goods in Nigeria. What this means is that the presence of non-executive directors on the company’s board facilitate the availability of financial reports and prevent financial frauds through effective monitoring of managerial activities. This finding is in agreement with the study of Imen and Anis (2016) that found that board independence has significant effect on financial reporting timeliness. Furthermore, Abdullah (2007) did a study on board composition, audit committee and timeliness of corporate financial reports. Findings revealed that board independence has positive and significant effect on timeliness of corporate financial report. Likewise, Mehdi and Shiva (2015) studied the relationship between board characteristics and timing of financial reporting. Their result revealed that, there is a positive relationship between board independence and financial reporting timeliness. Another empirical finding to back this result is the study of Ebimobowei and Jasper (2013) that examined board independence as a proxy of corporate governance structure and timeliness of financial reports of quoted firms in Nigeria. The result revealed a significant relationship between board independence and timeliness of financial reports. Also, the study of Adedeji, Soyinka, Sunday, Adegorye and Gbore (2020) were on corporate governance characteristics and timeliness of financial reporting in Nigeria. Their finding revealed a significant positive relationship between board independence and timeliness of financial reporting of listed companies in Nigeria.

The fifth result reveals that foreign ownership has positive but statistically insignificant effect on financial reporting timeliness of listed consumer goods in Nigeria. This finding implies that foreign ownership tends to guide the management from non-value maximizing activities, and that higher proportion of foreign shareholders could influence a company to disclose significantly more information in their annual reports. This finding is consistent with the study of Hashim (2017) that examined ownership characteristics and its impact on audit report lag. The author found that, there is an insignificant impact of foreign ownership on audit report lag.

The sixth result reveals that managerial ownership has positive but statistically insignificant effect on financial reporting timeliness of listed consumer goods in Nigeria. What this means is that, as soon as managers own some portion of shares in a company, it will induce managers to ensure that the company’s performance is maximized, likewise the share value.
Managers would engage in an opportunistic behavior if they hold small fraction of shares of a company. An increase in management ownership will reduce agency problems and managers will become more transparent on company reports. However, the proportion of shares held by managers does not facilitate timeliness of financial reports. This finding concurs with the study of Ahnaf (2018) that studied the effect of board of directors’ characteristics and ownership type on the financial reporting timeliness. The author found that management ownership has no significant effect on timeliness of financial report.

5. Conclusion and Recommendations

The study concludes that both board of directors’ diversity and board independence have effect on financial reporting timeliness, while board size, board meeting, foreign ownership and managerial ownership have no effect on financial reporting timeliness of quoted consumer goods in Nigeria.

The following recommendations were made:

1. Companies should not focus on board size rather they should focus on the qualities and contributions each board member renders toward qualitative financial reporting. What is expected from board member towards timeliness of financial statement is not the number of board of directors, but the experience of each board member to financial statement.

2. This study recommends a maximum of four board meetings in a year. The board meeting must be coordinated and at least two third of directors with financial knowledge must be in attendance, this is to ensure that adequate deliberations are made on financial matters.

3. Board of directors’ diversity expands gender perspective at the strategic level. Companies with women directors deal with risk more effectively; this is because women have more relational skills, as well as, less risk takers and has a more participatory style in decision-making than men. Women are more socially and environmentally committed and they are more interested on the welfare of the society, and women are ethical in decision-making which enhances financial reporting timeliness.

Just like the Italian government that had passed a law requiring listed and state-owned companies should ensure that one-third of their board members are women, regulatory agencies in Nigeria should align in that school of thought. Similarly, since investors now consider gender diversity as positive investment variable when it comes to investment decisions, companies should not disregard women inclusion in the board because, they have the propensity on the lag of financial reporting timeliness. In other words, gender diversity is a signal to the financial market which improves company’s reputation and legitimacy in accordance with the stakeholder theory.

4. The study recommends the mandatory presence of non-executive directors in the composition of board of directors, in which most limited liability companies are culprits. Furthermore, the proportion of non-executive directors to the total directors should not be less than forty percent, this is because non-executive directors have little or no affiliation to the company in terms of equity ownership and managerial participation which strengthen corporate governance and enhance financial reporting timeliness.
Most importantly, the presence of non-executive directors is capable of preventing financial frauds through effective monitoring of managerial activities.

5. Foreign ownership tends to guide management from non-value maximizing activities but does not determine the timeliness of financial report. Shareholders should not rely on the premises that foreign ownership will stimulate timely availability of financial statement, rather they should always demand timely annual general meeting, and this will result to timeliness of financial report.

6. The study finally recommends that managers should not focus on managerial ownership of shares rather they should focus on how to furnish the external auditor the financial statement since it is the responsibility of management to prepare financial statement, availability of financial statement to the external auditor will enhance timeliness of audited financial report.

Reference

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