CORPORATE GOVERNANCE MECHANISM AND FINANCIAL DISTRESS LIKELIHOOD: EVIDENCE FROM LISTED CONSUMER GOODS COMPANIES IN NIGERIA

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ABSTRACT
This study examined the effect of corporate governance mechanism on financial distress likelihood of listed consumer goods firms in Nigeria for a period of fifteen years (2008-2022). Published annual reports were used as secondary data from the sampled firms. The population consists of 13 consumer goods firms listed on the Nigerian Exchange as at 31st December 2021 and the sample size was made up of 13 consumer goods firms having the required data. Atman’s Z-score was used to measure FDL. The study adopted multiple regression technique in analyzing the data extracted. The study concluded that board gender diversity has a significant effect on financial likelihood of listed consumer goods firm in Nigeria. However, board independence did not show significant effects on financial distress likelihood of listed consumer goods firms in Nigeria. The study recommended that the presence of independent directors on the board should be encouraged as they will enhance monitoring mechanism and reduce the propensity to likelihood of financial distress. Additionally, that the inclusion of female directors should be maintained by the listed consumer goods firm in Nigeria in order to mitigate the likelihood of financial distress

KEYWORDS: Financial Distress likelihood, corporate governance mechanism, BGD, BIND, LEV

1. INTRODUCTION
Financial distress in any company or sector is the leading cause of bankruptcy. The inability of companies to predict financial distress due to poor management by the managers and also poor monitoring role by board in recent years has become a major problem all over the world. Company's visions are not only to maximize profit, but also to ensure continuity and to provide welfare for the environment. To attain balance in achieving these goals, companies need to apply the right strategy to mitigate the possibility of financial distress in order to prevent bankruptcy and ensure continuity.
The failure of organizations has become one of the events of special interest in economic life. As a result, financial distress prediction has become a subject of a great interest in corporate finance major (Charalambakis & Garrett 2018), (Bredart 2014). Financial distress likelihood has tempered the interest of policymakers, investors and researchers, prompting the need for comprehensive research on the implementation of corporate governance practices. Several factors contribute to the financial distress of companies, such as being unable to predict the development of operations, unable to forecast the company's cash flows, effective financial decisions, economic distress and poor management.

Corporate scandals, such as Cadbury Plc. 2008 in Nigeria and recent downfall of Wirecard 2020 in Germany have put regulatory authorities under pressure and raised the questions as to the effectiveness of corporate governance mechanism and board roles in preventing financial distress.

Developing an early warning system for detecting financial distress has become essential especially after the increasing number of companies experiencing financial failure (Jabeur & Fahmi 2017). The inability to develop such warning system may lead to some negative consequences such as bankruptcy, liquidity or changing in control. (Abdullah, et.al 2016, Noor & Iskandar 2012). Jabeur and Fahmi (2017) indicated that research in the field of predicting financial distress is of great importance to different stakeholders. From the manager's point of view, the possession of forecasting tools gives managers the opportunity to review strategy and take the appropriate corrective steps.

The weakness of governance mechanisms in many companies is a major cause of many bankruptcies worldwide. The report introduced by the OECD in 2009 confirmed that weak governance in many companies is the main cause of firms’ crisis. Also, the weakness of confidence in the global financial markets is due to practices of corporate governance. This has resulted in a dispute of interest between shareholders and managers on the one hand and between shareholders and board of directors on the other hand. (Baklouti et al, 2016). Salloum and Azoury (2012) confirmed that after the global financial crisis of giant corporations, accusations directed to board of directors because they did not do their jobs properly and efficiently.

In Nigerian businesses, particularly Consumer goods corporations, financial difficulties or corporate bankruptcy has been a frequent occurrence (Taliani & Sedrine 2010). Due to the frequent occurrences of business failure, which have caught the attention of investors and other stakeholders, it is necessary to determine the primary reason of corporate bankruptcy. Since corporate governance is a mechanism by which the affairs of the organization are managed and controlled by the directors, it is necessary to examine the top management and internal control system of the organization in order to ascertain the essence of corporate governance in relation to financial distress likelihood of such companies. An
entity's ability to continue operating or maintain its existence is impacted by financial distress likelihood. The going concern concept, which states that the financial statements have been prepared based on the possibility that the company would continue to do its regular operations indefinitely, is one of the fundamental accounting principles in this context. Going concern refers to the presumption that a company will carry on with its operations for the foreseeable future without the need or purpose of going out of business, suspending operations, or seeking protection from creditors in accordance with laws or regulations. The job of external auditors becomes extremely important in assessing the company's ability to continue operating when it encounters any financial challenges, such as the inability to fulfill its obligations and suffers losses. Users of financial statements will have their interests protected, and it will assist them in making investment decisions.

The responsibility of ensuring proper financial health rests on the shoulder of the apex governing body of a firm “the board of directors”. Furthermore, the foremost aim of financial reporting activity is to make available true financial position and performance; while corporate governance as part of it objective, provides a platform to ensure that the financial reports published is a reflection of the true financial position of the company. The link between corporate governance and financial distress likelihood has been intensely discussed in developed countries with scarce evidence from emerging economies like Nigeria (Uwuigbe et al., 2017). Consequently; there is no conclusive evidence on the effect of corporate governance on the financial distress likelihood as proxy by board gender diversity and board independence.

There are many studies that have examined the effect of corporate governance on the financial distress likelihood globally but only few of them have Nigeria settings such as Maier et al. (2022), Shahab et al. (2020), and Kenedy et al. and none to the best of the researcher's knowledge have used the consumer goods firms’ sector of the Nigerian exchange as a domain.

In addition, the works of Maier et al. (2022), Shahab et al. (2020), Kenedy et al. Hsu and Wu (2014) as well as Hermalin and Weisbach (1991) did not extend their data period coverage beyond 2017, following the spite of financial distress likelihood there is need to extend the period of these studies to year 2022. This creates a period gap which this study intends to fill by investigating the work to 2022. The period is also extended to fifteen years (15) for a more robust data analysis. This creates a gap for further study. Therefore, the study seeks to examine the effect of corporate government mechanism on financial distress likelihood of listed consumer goods firms in Nigeria for the period of 2008 to 2022.

The objective of this study is to examine the effect of corporate governance mechanism on financial distress likelihood of listed Nigerian consumer goods firms. The study's specific objectives are to
identify the effect of board gender diversity, board independence on financial distress likelihood of listed consumer goods firms in Nigeria.

The following hypotheses were formulated in null form based on the above specific objectives;

H01  Board Gender Diversity (BGD) has no significant effect on financial distress likelihood of listed consumer goods companies in Nigeria

H02  Board Independence (BIND) has no significant effect on financial distress likelihood of listed consumer goods companies in Nigeria.

Additionally, the study will guarantee that investment opportunities are pursued with certainty and help investors and financial analysts make well-informed decisions regarding the corporate governance mechanisms in Nigerian consumer goods companies that are publicly traded. Furthermore, this research will facilitate the fulfillment of various needs of finance managers, management accountants, academicians, and students who are interested in this field. Additionally, it will enrich the body of knowledge already available on financial distress probability and corporate governance. The study's fifteen-year timeframe is from 2008 to 2022. This time frame is deemed reasonable because of the Nigerian stock market's rapid growth and economic recovery from 2000 to 2009, as well as its decline and volatility from mid-2009 to 2017. The rationale behind selecting listed consumer goods companies in Nigeria as the study domain is their potential to enable convenient access to financial statements of the companies under investigation. Utilizing information from these sources could improve the accuracy and validity of the data used. The remaining portion of the study is divided into four sections that address the research methodology, the results and discussions, the conclusion and recommendation, and the review of literature and theoretical issues.

2. LITERATURE REVIEW

This segment reviewed the literature on corporate governance mechanisms and financial distress likelihood under three major headings namely: Conceptual review, Empirical studies and Theoretical issues.

Concept of Financial Distress Likelihood

Financial distress is a situation in which a company cannot generate sufficient revenue or income to meet its financial obligations. This is generally due to high interest rate, large amount of tangible assets, or revenues sensitive to economic downslide. The company's failure to overcome financial Distress indicates the company's poor corporate governance (Siswanto & Fuad, 2017). The key factor in identifying firms in financial distress is their inability to meet its contractual debt obligations (Elloumi & Gueyie, 2001). Other factors include poor profit, struggling to breakeven, declining sale or poor sales growth and bad debt.
Usdin and Bloom (2012) identified nine indicators of financial distress likelihood, including the company's failure to pay creditors on time, being sued for unpaid debts, experiencing a significant event that won't happen again, having a union threaten legal action against the company, having a major supplier threaten to stop providing services to the company, and failing to meet its contractual obligations. Prior research links financial parameters like leverage, profitability, liquidity, and asset turnover to financial crisis (Zulkarnain & Hasbullah, 2009).

According to Amoa (2014) highly leveraged companies may go bankrupt if they are unable to make their repayment obligations, but they also run the risk of increasing shareholder return on investment. Profitability and liquidity play a direct role in a company's resilience through difficult times. According to Parker et al. (2002), these ratios are predicted to have a bad correlation with the likelihood of financial trouble. Large economic and societal losses can result from financial hardship for many stakeholder groups in businesses. Every year, a large number of businesses experience financial difficulties for a variety of reasons, including the maturation of their markets, the emergence of new rivals and technology, managerial errors, and declining demand for the products they provide. There is no widely accepted definition of financial distress likelihood, despite the fact that a financially distressed likelihood firm has difficulty raising the cash to meet the payments on its current financial obligations, particularly those with contractual agreements that are enforceable by law, such as loans, debts to suppliers, salaries of employees, and interest payments.

The association between bankruptcy risk and board characteristics was investigated by Maier and Burcin (2022). The study estimated traditional Z-Score models using panel data that included 2519 listed non-financial enterprises from 29 different European countries between 2012 and 2020. A larger board is linked to a lower risk of insolvency, according to the study. On the other hand, it is anticipated that the presence of employee representatives will raise the risk of insolvency and have a detrimental effect on the board's ability to supervise. Two measures of board diversity that reduce the risk of bankruptcy are the presence of international and female directors. For financially troubled companies, on the other hand, board diversity and independence actually increase the risk of bankruptcy. These results are economically and statistically significant, and they hold, at least in part, for different specifications. Our results suggest that governance regulators, credit rating agencies, financial institutions, businesses, and investors should consider board composition more, especially in the event of impending financial hardship.

Contextual variables that influence the association between board gender diversity and business success were investigated by Lee and Thong (2022), Sample of publicly traded companies in the tourism sector from 2015 to 2020 across 30 countries. First, the proportion of female directors on a board is positively correlated with business success. Second, there is a stronger positive correlation
between firm performance and the percentage of female directors on the board in the countries with stronger shareholder rights, stronger economic empowerment of women, securities law regulations requiring disclosure of board diversity, and the COVID-19 crisis. Third, businesses with a larger proportion of female board members are less likely to face financial difficulties.

Fourth, there is a stronger correlation between the percentage of female directors on the board and the likelihood of corporate financial distress. This correlation was observed during the COVID-19 crisis in countries with stronger securities law regulations requiring disclosure of board gender diversity and in countries with stronger economic empowerment of women. Uniqueness and worth The findings imply that contextual factors, including the national corporate governance framework, the state of the economy, and the status of women's economic empowerment, may have an impact on the association between board gender diversity and corporate performance.

The study conducted by Jose (2021) looked into the potential effects of gender diversity on a board on a company's capital structure, including leverage, debt maturity, and cost of debt. It also looked at the risk of bankruptcy and found that, for a sample of European companies from 2002 to 2019, the percentage of women directors was the most important characteristic when it came to board decisions regarding capital structure, and that it had an adverse correlation with debt maturity, cost of debt, and leverage. Finally, the study found that having a small, independent board with a high proportion of women directors reduces the likelihood of financial trouble.

From 2012 to 2019, a sample of 67 publicly traded companies from the Nigerian stock exchange were used in Ali et al. (2021) study. Fixed effect and generalized method of moments (GMM) calculations were carried out using a quantitative method utilizing a deductive approach for reliable conclusions. The results confirm that gender diversity and education have a considerable favorable impact on the success of the companies. The results align with the predictions made by the theories of agency and resource dependency. The findings contribute to the ongoing discussions about the types of regulatory makers who urge for corporate board diversity. The conclusions would be very helpful to management in the selection of directors since they highlighted the value of gender diversity and education for improved performance and raising market value.

Hosam et al. (2019) investigated the potential effects of board characteristics on earnings management among global consumer goods corporations. Features of the board, including its size, diversity, independence, and the CEO's dual role. This study used a quantitative research methodology, secondary data, and a sample of 71 businesses from the Top 250 businesses for one year (2016). The study's conclusions showed that the lowering of earnings management is significantly impacted by the board's independence. On the other hand, since a larger board is less capable of monitoring its own...
operations and finds it more difficult to keep an eye on management, the size of the board has no effect on the amount of management expenses that are cut. Although gender diversity significantly contributes to the decline in earnings management, The CEO Duality has a substantial impact on the management of earnings growth, therefore unravelling the roles of CEO and Chair of the Board may improve the Board of Directors' capacity for information processing as well as monitoring and control.

Sangeeta (2018) examined the representation of women (gender diversity) on the board and their impact on the likelihood of financial distress using a sample of Indian-listed family businesses from 2013 to 2016. Both logistic regression and descriptive statistics have been used to examine the effect of gender on the likelihood of financial distress. According to descriptive statistics, just 2% of businesses have a female chief executive officer (FCEO), and the average percentage of female board members ranges from 9% to 28%. Furthermore, because they are underrepresented on boards, women have a negligible effect on financial distress likelihood. The percentage of female board members (FPER) is the only significant factor that has a negative correlation with the likelihood of financial distress. However, the likelihood of financial distress is also inversely related to other inconsequential factors, indicating that having a diverse range of genders on the board can lower the likelihood of financial distress. Practical ramifications of the current study include the recommendation that a sizable proportion of women hold executive and board positions because their opinions may have a big influence on how the business is run and may relieve financial pressure.

The impact of the independent board of commissioners and motivation on financial distress was studied by Muslifiansyah et al. in 2022. 26 transport companies in Indonesia were sampled for the 2019–2022 study. The possibility of financial distress was found to be influenced by independent variables using multiple linear regression models. The outcome demonstrates that having an independent board of commissioners has no discernible impact on the likelihood of financial distress for the respective companies.

The impact of board characteristics on the financial distress of deposit-taking SACCOS in Nairobi, Kenya was investigated by Munene et al. (2020). The study used panel regression analysis to sample 43 companies for the years 2012–218. The outcome showed that having a larger board has a negative impact on financial hardship. Additionally, the study showed that board independence had a negative and significant impact on financial distress. The study, however, deviates from the conclusions of Maina and Omagwa (2020), who examined board composition and financial distress of Kenyan listed commercial banks and found a positive but negligible impact of independent directorship on the latter. 11 banks were sampled for the study between 2011 and 2018 using panel regression analysis.

A study conducted in 2020 by Humairoh and Nurulita examined the impact of corporate governance
on financial distress within Indonesia. The study used multiple regression analysis to sample 13 companies between 2015 and 2020. The findings showed that independent commissioners and board size had significant positive and negative effects, respectively. This indicates that the likelihood of financial distress in the sampled companies cannot be decreased or increased by the number of directors on the board or by the percentage of independent directors. This was confirmed by Anning et al. (2021), who looked into how the qualities of the board of directors affected the probability that 11 listed banks in Ghana would face financial difficulties between 2010 and 2021. Financial distress was not significantly impacted by board size or non-executive board membership.

Maier et al. (2022) examined the relationship between board features and bankruptcy risk using panel data from 2519 listed non-financial companies across 29 European countries between 2012 and 2020. The study found that a lower chance of insolvency is associated with board independence. Conversely, it is expected that employee representatives will increase the risk of insolvency and negatively affect the board's oversight capacity. Two measures of board diversity that reduce the risk of bankruptcy are the presence of international and female directors. For financially troubled companies, on the other hand, board diversity and independence actually increase the risk of bankruptcy. These results are economically and statistically significant, and they hold, at least in part, for different specifications. Our results suggest that governance regulators, credit rating agencies, financial institutions, businesses, and investors should consider board composition more, especially in the event of impending financial hardship.

The theoretical literature of this study was founded on agency theory because it is a useful framework for revealing the connection between the likelihood of financial distress and board characteristics.

Jasen and Meckling (1976) introduced agency theory, which explains the advantages and problems associated with authority delegation in a company by focusing on the relationship between principal and agent. Agency theory states that managers prioritize their own interests over those of the owners. For example, Manzaneque (2016) reported that managers prefer a short-term strategy in order to keep their jobs, which causes conflict with stakeholders during times of crisis. Agency costs can occur as a result of stakeholder conflicts within an organization. Thus, in order to prevent further decline, the company's owners pay for corporate governance monitoring tools, and managers incur bonding costs in an effort to persuade the principals that their actions and decisions will not cause harm.

Agency costs are defined by Jensen and Meckling (1976) as the total of the following: residual loss, bonding costs, and monitoring costs. The reason for monitoring costs is that agency problems make it difficult for the principal to direct the agent's desired actions (Mallin, 2007). By providing suitable incentives for the agent and putting in place monitoring procedures—typically audits to restrict
managers’ discretionary actions, the principal bears the expense of monitoring (Jensen & Meckling, 1976).

Arnold and Lange (2004) state that in order to avoid conflicts of interest, the agent might be required to cover bonding costs. According to Jensen and Meckling (1976), there exists a motivation for the agent to invest resources, like providing a bond, in order to guarantee that the agent refrains from acting in a way that could cause harm to the principal. Reasonably, since the principal would price protect extensively in the absence of such bonding activities, resulting in monitoring expenses that lower the agent's compensation (Arnold & Lange, 2004).

According to Hassan et al. (2013), the goal of agency theory is to identify ways to improve the effectiveness of a company's governance structure so that the CEO has every opportunity to fulfill the expectations of shareholders and achieve performance goals. Because the shareholders are unable to effectively oversee the managers' actions, an agency problem may develop between the managers and the shareholders. As a result, the agent may be more motivated to look out for himself or herself than for the interests of the principal. The primary goal of business is to maximize profits. Profit maximization, however, is ineffective for a number of well-known reasons. First, it fails to take into account the cash flows that shareholders may not be willing to bear, the timing of returns, and risk, all of which can cause tension between the manager and the shareholders.

3. METHODOLOGY
To describe historical events, assess the present, and make predictions for the future, descriptive research methods was used. It is suitable for this study in the sense that it enables the testing of links between variables and the making of relationship predictions. The fifteen (15) year study period runs from 2008 through 2022. This is because the study intends to exclude companies having incomplete audited financial records. As of December 31, 2022, a total of thirteen (13) Nigerian consumer products companies matched the criteria for the sample selection.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Name of Company</th>
<th>Year of Incorporation</th>
<th>Year of Listing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cadbury Nig.</td>
<td>1965</td>
<td>1976</td>
</tr>
<tr>
<td>2</td>
<td>Dangote Sugar</td>
<td>2005</td>
<td>2007</td>
</tr>
<tr>
<td>3</td>
<td>Flour Mills of Nigeria</td>
<td>1962</td>
<td>1979</td>
</tr>
<tr>
<td>4</td>
<td>Guinness Nig.</td>
<td>1950</td>
<td>1965</td>
</tr>
<tr>
<td>5</td>
<td>International Breweries</td>
<td>1971</td>
<td>1995</td>
</tr>
<tr>
<td>6</td>
<td>Nascon Allied</td>
<td>1973</td>
<td>1992</td>
</tr>
</tbody>
</table>
Model Specification

The model specification to be used in this study will be based on the explanation of the relationship between the dependent and independent variable of this research. Therefore, the multiple regression is defined as

\[ \text{FL}_{it} = \beta_0 + \beta_1 \text{BGD}_{it} + \beta_2 \text{BIND}_{it} + \beta_3 \text{LEV}_{it} + \epsilon_{it}. \]

Whereas: \( \text{FL}_{it} \) = Represents financial distress likelihood which is the dependent variable;

\( \text{BGD} \) = Board Gender Diversity

\( \text{BIND} \) = Board Independence

\( \text{LEV} \) = Leverage

\( i = \) number of companies, 1 - 13, \( t \) = the index of time periods =15

\( \epsilon \) = is the error component for company

\( \beta_0 \) = Intercept of the model “Constant”, \( \beta = 1, 2 \ldots \) are parameters to be estimated

Variables, Definitions and Measurements

Table 2 Variable definition and measurement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Type</th>
<th>Measurements</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Distress Likelihood (FDL)</td>
<td>Dependent</td>
<td>Altman Z-score</td>
<td>Altman et al. (2006)</td>
</tr>
<tr>
<td>Board Independence (BIND)</td>
<td>Independent</td>
<td>Percentage of independent directors to total number of directors in the board</td>
<td>Morellec (2012)</td>
</tr>
<tr>
<td>Board Gender Diversity (BGD)</td>
<td>Independent</td>
<td>Number of female directors on the board.</td>
<td>Horváth &amp; Sporular (2012)</td>
</tr>
</tbody>
</table>
LEVERAGE (LEV)

Control

Total debt to company’s total assets

Zeshan (2019)

Financial Distress Likelihood (FDL) is a situation in which the selected firms find itself unable to meet financial obligations. It is measured as:

\[ \text{FDL} = \text{Z-Score} = \frac{\text{ROAA} + \text{ET}}{\alpha \text{ ROAA}} \]

Where:
- ROAA = The firms return on average assets
- ETA = Equity to total assets
- \( \alpha \) ROAA = Standard deviation of return on average Assets
- Z-Score = Financial Distress likelihood

4. RESULTS AND DISCUSSION

This section describes the data presentation, analysis and interpretation. The section consists of descriptive analysis, diagnostic tests, regression analyses, hypotheses testing and discussion of findings. Appendices A1 to A3 are the raw STATA results derived from the raw data. Table 1 presents the results of descriptive statistics showing the observations, the mean, standard deviation, minimum mean and maximum mean.

Table 3

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDL</td>
<td>195</td>
<td>2.909629</td>
<td>1.1161</td>
<td>.1111</td>
<td>5.2028</td>
</tr>
<tr>
<td>BGD</td>
<td>195</td>
<td>14.44774</td>
<td>10.35089</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>BIND</td>
<td>195</td>
<td>64.30995</td>
<td>13.37794</td>
<td>40</td>
<td>90</td>
</tr>
<tr>
<td>LEV</td>
<td>195</td>
<td>63.24718</td>
<td>23.96276</td>
<td>12.42</td>
<td>305.8</td>
</tr>
</tbody>
</table>

Source: STATA 17 Result Output

Table 3 shows a detailed analysis of the financial distress likelihood (FDL) among listed consumer goods firms in Nigeria. The number of observations is 195, which was obtained by multiplying the number of listed consumer goods firms (13) by the number of years covered by the study (15). Also,
the central mean of FDL (Financial Distress Likelihood) was 2.909 with a standard deviation of 1.116. By comparing these two figures, it is clear that the standard deviation is lower than the central mean, suggesting that most consumer goods firms operate within a similar financial distress likelihood range. This suggests the need for comprehensive regulatory measures and strategic planning to mitigate the financial distress likelihood. Furthermore, the minimum mean is 0.1111 and the maximum mean is 5.2028. This suggests that firms with exceptional low Financial Distress likelihood (FDL) values are at the risk of financial distress and require immediate support. Consumer goods firms with high value of FDL values indicates financial stability.

Furthermore, the central mean of Board Gender Diversity (BGD) was 14.44 with a standard deviation of 10.35. By comparison, it is clear that the standard deviation is lower than the central mean, suggesting that board gender diversity is not too explosive. Furthermore, the minimum mean is 0 and the maximum mean is 40. This suggests that some firms have no female board members.

Also, board independence (BIND) shows a central mean of about 64 per cent with a standard deviation of about 13 per cent. By a way of comparison, the standard deviation is less than the central mean, suggesting that the level of volatility among the firms and the periods of coverage is low. Also, the minimum mean is 40 per cent and the maximum mean is 90 per cent. Note that board independence means the fraction of non-executive directors expressed to total board size.

Additionally, leverage (LEV) has mean of 63.24 percent with a standard deviation 23.96 the average value revealed that some of the consumer goods companies are highly geared while the standard deviation suggested that the companies leverage level followed the same pattern. It also shows the minimum and maximum of 12.42 percent and 305.8 percent of debt respectively.

Table 4 Result of Correlation Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>FDL</th>
<th>BGD</th>
<th>BIND</th>
<th>LEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDL</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BGD</td>
<td>-0.3803*</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIND</td>
<td>0.1182</td>
<td>-0.0739</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>0.0999</td>
<td>0.3045</td>
<td>0.1141</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

***p<0.01, **p<0.05, *p<0.1

Source: STATA 17
As indicated earlier, Table 4 is a report of the results of correlation analysis, showing the bivariate relationships between the dependent variable (FDL) and two (2) independent variables. It shows that the relationship between board gender diversity and financial distress likelihood is positive and significant. Also, board independence is positive and has no significant effect on financial distress likelihood of listed consumer goods firms in Nigeria. Regression analysis shows the level of significance and impact of each predictor variable on the dependent variables. The regression results of this study is presented in table 5.

Table 5 Regression Result Analysis

|     | Coefficient | Std. err. | t     | P>|t|   | [95% conf. interval] |
|-----|-------------|-----------|-------|-------|----------------------|
| FDL | -0.0402796  | .007202   | -5.59 | 0.000 | -0.0544853 to -0.026074 |
| BGD | 0.075904    | .0056088  | 1.35  | 0.178 | -0.0034728 to 0.186536 |
| BIND| 0.001766    | .0031228  | 0.06  | 0.955 | -0.0059831 to 0.0063363 |
| LEV | 2.992274    | .4562886  | 6.56  | 0.000 | 2.092262 to 3.892286  |

R-squared 0.1528
Adj R-squared 0.1395
Prob > F 0.0000

Table 5 indicate the various levels and degree of impact of proxies of corporate governance on financial distress likelihood. The R squared value of 0.1528 shows the predictive power of the model. This indicates that, about 0.1528 variation in the FDL of listed consumer goods firms in Nigeria is explained by BGD and BIND. Generally, the model of the study is robust as the p-value of the model is significant at 0.05.

Specifically, Board Gender Diversity (BGD) with a coefficient of -0.0402796 and a p-value of 0.000 shows that, Board gender diversity has statistically relationship with financial distress likelihood of listed consumer goods firms in Nigeria. However, given that the p-value is less than the 5% threshold it means Board gender diversity has a significant relationship on the financial distress likelihood of listed consumer goods firms in Nigeria. Therefore, the study rejects the null hypothesis and concludes that board gender diversity has significant effect on financial distress likelihood. This result is consistent with a priori expectation of this study. This finding is in line with prior empirical studies of Ali et al., (2020), Lee and Thong (2022) and Jose (2021) which reveals that there is correlation between board gender diversity and financial distress likelihood. However, on the contrary, Sangeeta (2018) reveals a negative correlation with financial distress likelihood.

Furthermore, Board Independence indicated a coefficient value of 0.075904 and a p-value of 0.178.
This shows that BIND is statistically not significant at 0.178 as the p-value is greater than 5%. Therefore, the study accepts null hypothesis. This result also not consistent with the a priori expectation of this study. Therefore, the study is supported by the work of Maier et al. (2022). Which reveals that there is no correlation between board independence and financial distress likelihood.

5. CONCLUSION AND RECOMMENDATION
The research examined the effect of corporate governance mechanism on financial distress likelihood of listed consumer goods firms in Nigeria. The study concluded that board gender diversity, is positively and significantly impacting on financial distress likelihood of consumer goods firms in Nigeria, additionally, BIND is also positively and insignificantly influencing financial distress likelihood of listed consumer goods firms in Nigeria.

Based on the findings it is therefore recommended that the inclusion of female directors should be maintained by the listed consumer goods firm in Nigeria in order to mitigate the likelihood of financial distress. The study further recommended that the presence of independent director on the board should be encouraged as they will enhance monitoring mechanism and reduce the principal agent conflicts in the organization. This study is limited to only two corporate governance variables namely; board size and board independence. However, other variables like Directors' tenure Board expertise and foreign directors can be taken into consideration in future research. Also, further research can be carried out on all the listed firms on the Nigerian Exchange.

REFERENCES


APPENDIX A1

```
Variable   Obs     Mean  Std. dev.  Min   Max
FDL        195      2.98629  1.111     5.2928
BDID       195      14.44774 18.3589     0      50
BIND       195      64.30699 13.37794    40     90
LEV        195      63.24718 23.96276    12.42  385.8
```

https://ijrcms.com
### APPENDIX A2

```
pwcorr FDL BGD BIND LEV, sig star (.05)
```

<table>
<thead>
<tr>
<th></th>
<th>FDL</th>
<th>BGD</th>
<th>BIND</th>
<th>LEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDL</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BGD</td>
<td>-0.3083*</td>
<td>1.000</td>
<td>0.000</td>
<td></td>
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<tr>
<td>BIND</td>
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<td>-0.0739</td>
<td>1.000</td>
<td>0.0099 0.3045</td>
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<tr>
<td>LEV</td>
<td>-0.0034</td>
<td>-0.0086</td>
<td>-0.1141</td>
<td>1.0000</td>
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</table>

### APPENDIX A3

```
reg FDL BGD BIND LEV
```

```
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<tr>
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<th>FDL</th>
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<th>BIND</th>
<th>LEV</th>
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</thead>
<tbody>
<tr>
<td>Source</td>
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<td>df</td>
<td>MS</td>
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<tr>
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<td>3</td>
<td>12.393422</td>
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<tr>
<td>Residual</td>
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<td>191</td>
<td>1.07190339</td>
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<tr>
<td>Total</td>
<td>241.661572</td>
<td>194</td>
<td>1.24567821</td>
<td>Adj R-squared = 0.1395</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>FDL</th>
<th>BGD</th>
<th>BIND</th>
<th>LEV</th>
</tr>
</thead>
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<td>FDL</td>
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<td>Std. err.</td>
<td>t</td>
<td>P&gt;</td>
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<tr>
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<td>.0056088</td>
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<td>.0031228</td>
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<tr>
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<td>.4562886</td>
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</tbody>
</table>
```