



## SHAREHOLDERS' FUND AND PROFITABILITY OF LISTED CONSUMER GOODS COMPANIES IN NIGERIA: THE MODERATING EFFECT OF BOARD GENDER DIVERSITY

**Salamatu Barde Mato<sup>1</sup>, Zahradeen Abdullahi<sup>2</sup>**

<sup>1&2</sup>Department of Accounting, Bayero University Kano, Nigeria

Correspondence Email: [salamatubarde@gmail.com](mailto:salamatubarde@gmail.com)

### Abstract

This study examined the moderating effects of board gender diversity on the relationship between shareholders' fund and the profitability of listed consumer goods companies in Nigeria. The study employed non-survey research design, using a sample size of seventeen (17) companies from a total population of twenty-one (21) listed consumer goods companies on the Nigerian Exchange (NGX) Group for a period of thirteen (13) years (2011-2023). Data was extracted from the annual reports and accounts of the sampled companies for the period under the study. Data was analysed using descriptive statistics to provide a summary for the variables, correlation analysis carried out using the Pearson correlation technique while multiple regression was used to test the hypothesis developed for the study. The result showed that shareholders' fund has positive and significant effect on Return on Assets. On the other hand, board gender diversity has a negative and insignificant effect on Return on Assets. Nevertheless, the result shows that the relationship between shareholders' fund and Return on Assets was moderated by board gender diversity negatively. Therefore, the study concluded that board gender diversity moderates the relationship between shareholders' fund and the profitability of listed consumer goods companies in Nigeria. On this note, the study recommended that the management of sampled companies in Nigeria should consider the use of ordinary shares, preference shares, retain earnings and reserve to finance their assets. Moreover, the management of the listed consumer goods companies in Nigeria should comply with the directive of the various regulatory bodies such as the Corporate Governance Code of Conduct (CGCC), Financial Reporting Council of Nigeria (FRC) and the Central Bank of Nigeria (CBN) among others which encourages boards to strive for gender-balance board, with a minimum of 30% of female gender which can contribute to increase firm profitability.

**Keywords:** shareholders' fund, board gender diversity, profitability, consumer goods firms, Nigeria

### 1. Introduction

Profitability remains a fundamental objective for businesses, as it determines their financial sustainability, growth potential, and ability to reward investors. It is the paramount objective of every profit-making organization and consumer goods companies are not an exception. Financial success demonstrates how successful and profitable a

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company is in achieving its goals (Suhadak, 2019). For listed consumer goods companies in Nigeria, maintaining profitability is particularly challenging due to fluctuating economic conditions, changing consumer preferences, and regulatory constraints. Effective financial management, including the strategic utilization of shareholders' funds, plays a crucial role in enhancing profitability. Increasing a company's financial output becomes essential in order to attract investors (Bello et al., 2020).

The ability of a company to make a profit and the effective utilization of resources are shown by financial success. For stakeholders such as depositors, creditors, shareholders, states, managers, this effective utilization of resources is important to them since it will increase their benefit in the firm (Bello et al., 2020). Bello et al. (2020) furthered opined that financial performance to depositors, it shows the benefit provided because of the funds they deposited. The profit generated by a firm from investors' investments reflects its commitment to fulfilling its obligations to them. Financial success reflects the bank's willingness to pay taxes to the state. The financial success of a company shows the return on investment for its shareholders. For managers, financial success demonstrates the value of their time and resources (Aymen, 2018).

For every management to achieve this objective of financially sound performance, it is vital to consider the structure of their capital. To acquire optimal capital structure will help an entity to increase shareholders' wealth. Return on Investment (ROI), Residual Income (RI), Earnings Per Share (EPS), Dividend Yield, Return on Assets (ROA), and Return on Equity (ROE) are all ways to evaluate financial performance (Tanko et al., 2021).

Board diversity is a key component of corporate governance, contributing to enhanced decision-making, improved risk management, and increased organizational accountability. Corporate governance is a system that used to compose the best mix of the board members while governing and managing the firms properly and profitably. It is a very useful method for managing and governing organizations (Lehn et al., 2003 as cited in PeiZhi & Ramzan, 2020). Notably, the Board of Directors (BOD) should be regarded as the primary players in a workplace for the protection of all stakeholders' interests (PeiZhi & Ramzan, 2020). Meanwhile, the BOD is a key stakeholder in developing and implementing corporate strategic policies on a wide range of issues in order to facilitate decision-making (Fenwick et al., 2019).

Good strategic corporate governance practices provide a means of understanding the vision of justifying risk and maximizing success in an aggressive and regulatory environment. The effective combination of well-diversified in term of gender, age, expertise, educational qualification and well-organized boards as a component of corporate governance will better and quicken decision making. This decision includes financing decision. However, as the firm's capital structure determines potential earnings and growth, the BOD is also responsible for designing the best capital structure with the right mix of equity and debt (Fenwick et al., 2019). The board of directors, on the other hand, is ineffective for decision making unless it places restrictions on individual top managers' discretionary decisions (Saleh et al., 2021).

One of the objectives of board of directors is that they have the authority to set the best funding plans for the company's long-term survival. In decision-making, female directors are said to have risk-averse trait than their male counterpart as they often shun

overconfidence and are more trustworthy, collaborative than men towards improving board dynamics (Menicucci & Paolucci, 2020). More so, even though with provision of Financial Reporting Council of Nigeria code of corporate governance on the inclusion of female on board room hitherto there are limited studies on the relationship between board gender diversity and firm performance. The majority of research on board gender diversity and firm performance has been conducted in developed countries, with only a few focusing on developing countries. The relationship between the presence of women on corporate boards and firm performance has been largely ignored in Nigeria.

There are few studies that investigate the moderating effect of board gender diversity on the relationship between shareholders' fund and firm profitability. These studies include Dezso and Ross (2012), Prihatiningtias (2012), Ramly et al. (2015), Nyatichi (2016), Njoroge (2017), Kimanzi et al. (2020), Zaid et al. (2020) and Saleh et al. (2021). Therefore, the current study intends to contribute to the body of research using Nigerian data to investigate the likely moderating role of board gender diversity on the relationship between shareholders' fund and firm profitability of listed consumer goods companies in Nigeria.

## **2. Literature Review**

### **Variables Review and Hypotheses Development**

#### **Shareholders' Fund and Profitability**

Shareholders' fund represents ownership interest in a firm (Moyer et al., 1999). It is therefore that the recourses contributed by the owners and normally includes ordinary share capital, preferential capital, retained earnings and reserves. Like debt providers, shareholders' equity providers also earn returns in form of dividends from the profits generated by the firm (Titman et al., 2011). Preference shareholders receive their dividends at an agreed rate before the ordinary shareholders and any un-appropriated profit is retained for firm's expansion programs (Titman et al., 2011). Suffice to say that a good financial performance enhances earnings retention. If a firm reports a loss, then it has a retained loss which reduces the shareholders' funds. In terms of measurement of equity, preference stock, ordinary stock and retained earnings will be used. The study used the ratio of owners' equity to total assets to measure for shareholders' fund.

Many studies such as Ogbulu and Emeni (2012), Abdul and Irwan (2014), Allahham (2015), Foo et al. (2015), Tolulope et al. (2015), Avci (2016), Basit and Birru (2016), Uremadu and Onyekachi (2018), Yinusa et al. (2019), PeiZhi and Ramzan (2020), Olaoye and Adesina (2022) Richard and Mehrshad (2023), Abdullahi et al. (2023), Ahmed et al. (2024) and Hassan (2024) have examined the effect of variables such as long term debt to total assets, short term debt to total assets, debt to equity, debt to assets and long term debt to equity on firm performance. However, using these variables to evaluate the financial performance of a firm, may not offer a comprehensive understanding of how they influence financial outcomes, as they do not account for the contributions of ordinary shares, preference shares, retain earnings and reserve in a corporate performance. It is in line with the above findings that the hypothesis was developed below:

**H<sub>01</sub>: Shareholders' fund has no significant effect on profitability of listed consumer goods companies in Nigeria.**

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## **Board Gender Diversity and Profitability**

Gender is among the most researched demographic diversity attribute (Terjesen et al., 2009). According to Ararat et al. (2015) diversity refers to equal opportunity given to all persons with different attributes. While, Hillman (2015); Sener and Karaye (2014) perceived female directors as more persistent when providing solutions to problems, and are more ethical when pondering over decisions, than their male counterparts. Nevertheless, the implementation of gender diversity policy has remained a challenge due to citizens' cultural beliefs across countries (Ramly et al., 2015).

Globally, gender diversity has continued to gather momentum in corporate boardrooms with slow but noticeable progress in few countries around the world (Global Gender Diversity, 2024). In UK for example, the corporate governance code (2012) highlights the need to promote gender diversity in listed firms. In Norway and Spain, all listed companies must have 40% women directors in their board. The same goes for Malaysian listed firms in which the government imposed a mandatory quota of at least 30% women directors in the boards. In Nigeria, The Financial Reporting Council of Nigeria (FRCN) 2018 also recommended the inclusion of female on board. Even though, gender diversity policy is receiving much attention the real challenge is the actual implementation. For example, Malaysian listed firms are yet to meet the mandatory quota even after ten years of its implementation.

According to Doldor et al. (2012), gender discrimination is among the key factors contributing to this challenge. High turnover and absenteeism and less ambitious women to pursue high-profile careers due to family commitment compared to their male counterparts (Goldin & Katz, 2010). Firms are therefore, concerned about how difficult it is to increase gender diversity because not only will they not be able to meet the imposed quota but more importantly, their performance might be adversely affected. In consumer goods industry, this issue is of great concern because corporate boardrooms failure may impede their operating system and result in financial turmoil and recessions (Claessens & Yurtoglub, 2013).

According to Fakeye et al. (2012), citing the work of George (2010) it was found that male employees at Cadbury Nigeria Plc often reject female managers while workers at Cadbury (UK) Plc. see female managers as normal managers as the male managers. In recent years, the significance of board gender diversity in Nigeria is gradually becoming visible and obvious. It is in line with the findings that the hypothesis was developed below:  
**H<sub>02</sub>: Board gender diversity has no significant effect on profitability of listed consumer goods companies in Nigeria.**

## **Board Gender Diversity and Shareholders' Fund**

Majority of the financial literature reveals a negative nexus between boardroom gender diversity and capital structure decisions. Nevertheless, some disagreement and ambivalence still persist in literature. From the gender diversity doctrine, Maxfield et al. (2010) argue that women are more risk-averse than their men counterparts. Denoting that, females make low-risk decisions, whereas men make high-risk decisions. Most notably, it is undoubtedly that the association between risk aversion and capital structure has not yet been well-investigated, and it still in its infancy, particularly in developing countries.

Schicks (2014) reports that male borrowers have a higher over-indebtedness risk than their women counterparts. One plausible reason for this result could be that the risk aversion doctrine may help to eschew financing risks, therefore making women use less debt. According to Ruigrok et al. (2007) as cited in Zaid et al. (2020) the female directors can contribute to the board performance by their pervasive influence on the decision-making process. More so, in the cost of debt context, it has been proven that firms with gender-diverse boards have a lower cost of debt because the presence of women directors on the boardroom alleviates the managerial opportunistic behaviour and information asymmetry (Usman et al., 2019), which, in turn, affects the lenders' perceptions about the borrower's ability to pay off the debt with interest. Elmagrhi et al. (2018) indicate that firms with gender/ethnic representation may need to use more debt to mitigate opportunistic behaviour of managers that may stem from potential weak managerial monitoring and sketchy CG. It is in line with this, that the hypothesis was developed below: **H<sub>03</sub>: Board gender diversity has no significant moderating effect on the relationship between shareholders' fund and profitability of listed consumer goods companies in Nigeria.**

### **Theoretical Framework**

#### **Agency Theory**

Agency theory was proposed by Jensen and Meckling (1976), to give clear guidelines on the relationship between the owner(s) of a firm and the manager(s) in any decision making which will enhance the performance of a firm. The theory also deals with the agency's problem that may result from conflict of interests between the shareholders and managers. This problem is multi-faceted i.e. agency problem arises when managers indulge themselves in opportunistic behaviours that will serve their interest and increase their wealth than the wealth of the shareholders (Tanko et al., 2021), or this problem may occur due to differences in the goals of both principal (shareholders) and agent (managers). This problem may also arise because the principal may not be aware of the actions of the agent or is hindered by resources from acquiring the information. In order to solve agency problem, the principal incurred agency cost such as incentive to managers or composition of BOD to oversee the activities of the managers. However, the theory seems to be more relevant in environments where laws are broken with impunity, capital market is inefficient and surrounded by several imperfections, and corporate governance from the side of firm is weak. These features are aligning with the most emerging markets such as Nigeria. Olokoyo (2013) has also used this theory in her study on the listed non-financial firms in Nigeria.

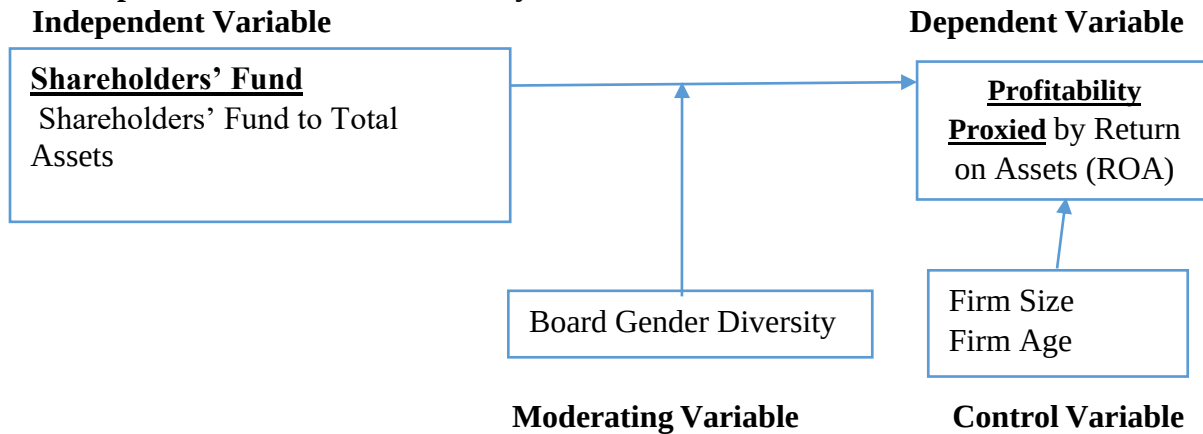
#### **The Resource Dependency Theory**

The resource dependency theory suggests that firms seek to attract and employ board members that best complement their existing resource profile and who can bring new forms of human and social capital to the company (Pfeffer & Salancik, 1978 and Siciliano, 1996). In addition, this theory also suggests that growth in board size and board diversity can create strong linkage between firms and its external environment (Goodstein et al, 1994 and (Pfeffer, 1973). Therefore, a firm should look to constitute a board which has individuals with a broad scope of knowledge across relevant demographics and can add legitimacy and prestige to the organization (Sealy, 2010). In Nigerian context, a paper titled: Women on Board, published by the Federal Department of Economic Affairs (2019)

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states that there are many women who are as qualified and experienced as men and are willing to work with their male counterparts on the board.

## **Conceptual Framework of the Study**



**Figure 1: Conceptual Framework of the Study**

**Source: Developed by Researcher from the Literature Reviewed, 2024**

## **3. Methodology**

The non-survey, ex-post factor research design was adopted because; the overall objective of the study is to establish a significant association of variables of study units over thirteen years. The study population comprised of the entire consumer goods companies listed on the Nigerian Exchange Group as at 31<sup>st</sup> December, 2011 and who are still in operation as at 31<sup>st</sup> December, 2023 respectively. As at 31<sup>st</sup> December 2023 there are 21 listed consumer goods companies on the floor of Nigerian Exchange Group (NGX) Group as shown in Table 1. For any company to be part of samples size, the company must be listed before 2010, must not be delisted before 31<sup>st</sup> December, 2023 and must have the available data for the period of the study. Having applied the three-point filters, seventeen (17) consumer goods companies meet up and these companies formed the sample size as presented in Table 1.

**Table 1**

*Population and Sampled Size Companies for the Study*

| S/No. | Name of CGC in Nigeria        | Year of Incorporation | Year Listing | of | Sample Size |
|-------|-------------------------------|-----------------------|--------------|----|-------------|
| 1     | Bua Foods Plc.                | 2005                  | 2022         |    | Removed     |
| 2     | Cadbury Nig. Plc.             | 1965                  | 1976         |    | 1           |
| 3     | Champion Brew Plc.            | 1974                  | 1983         |    | 2           |
| 4     | Dangote Sugar Refinery Plc.   | 2005                  | 2007         |    | 3           |
| 5     | Dn Tyre and Rubber Plc.       | 1961                  | 1961         |    | Removed     |
| 6     | Flour Mills Nig. Plc.         | 1960                  | 1979         |    | 4           |
| 7     | Golden Guinea Brew Plc.       | 1962                  | 1979         |    | Removed     |
| 8     | Guinness Nig. Plc.            | 1950                  | 1965         |    | 5           |
| 9     | Honeywell Flour Mills Plc.    | 1985                  | 2009         |    | 6           |
| 10    | International Brewries Plc.   | 1971                  | 1995         |    | 7           |
| 11    | McNicholas Plc.               | 2004                  | 2009         |    | 8           |
| 12    | Multi-Trex Int Foods Plc.     | 1999                  | 2010         |    | Removed     |
| 13    | N Nig Flour Mills Plc.        | 1971                  | 1978         |    | 9           |
| 14    | Nascon Allied Industries Plc. | 1973                  | 1992         |    | 10          |
| 15    | Nestle Nigeria Plc.           | 1969                  | 1979         |    | 11          |
| 16    | Nigerian Brew Plc.            | 1946                  | 1973         |    | 12          |
| 17    | Nigerian Enamelware Plc.      | 1960                  | 1979         |    | 13          |
| 18    | PZ Cussons Nigeria Plc.       | 1948                  | 1974         |    | 14          |
| 19    | Unilever Nigeria Plc.         | 1923                  | 1973         |    | 15          |
| 20    | Union Dicon Salt Plc.         | 1961                  | 1993         |    | 16          |
| 21    | Vitaform Nigeria Plc.         | 1962                  | 1978         |    | 17          |

**Source:** www.NGX.ng(2023).

#### **Sources and Methods of Data Collection**

The study used only secondary data from annual reports and accounts of the sampled consumer goods companies listed on the floor of NGX. The use of secondary data in this study will be derived from the properly attested completeness, validity and reliability of the details found in the financial reports by the external auditors, the SEC and the NGX. The financial structure and input and output data for operating efficiency was obtained from financial statements alongside gender diversity. Data for this study was collected from 2011 to 2023.

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**Table 2**

*Variables and their Measurements*

| Variable                           | Variable Type | Measurement                                                                                                              | Sources                                                                                                                          |
|------------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| ROA                                | Dependent     | Measured as income after tax divided by total assets.                                                                    | Ganiyu et al. (2019), Bellow et al. (2020), Tanko et al. (2021), Olaoye and Adesina (2022), Oli et al. (2023) and Uddina (2024). |
| Shareholders' Fund to Total Assets | Independent   | Measured as shareholders' fund (ordinary share, preference, share, retain earnings and reserve) divided by total assets. | Ishaya and Abduljeleel (2014), Nwangi et al. (2014), Zakhary et al. (2019) and Abdullahi et al. (2023).                          |
| Board gender diversity             | Moderating    | Ratio of female member (s) as board of directors (BOD).                                                                  | Nguyen, et al. (2015), Njoroge (2017), Brahma et al. (2020), Zaid et al. (2020) and Kimanzi et al. (2020).                       |
| Firm size                          | Control       | Logarithm of total asset                                                                                                 | Tanko et al. (2021), Olaoye and Adesina, (2022), Abdullahi et al. (2023) and Ahmed et al. (2024).                                |
| Firm Age                           | Control       | Lifespan of company from date of listing                                                                                 | Ganiyu et al. (2019), Tanko et al. (2021), Olaoye and Adesina (2022), Abdullahi et al. (2023) and Ahmed et al. (2024).           |

**Source: developed by Researcher, 2024**

**Techniques of Data Analysis**

The data collected for this study was analysed using descriptive, correlation and regression analysis.

**Multiple Regressions**

To determine the variations in the dependent variable (profitability) due to variations in the explanatory variable (SHF, FS and FA) and moderating variable (BGD), multiple regressions analysis was employed. The models of the study are as shown below:

$$ROA_{it} = \beta_0 + \beta_1 SHF_{it} + \beta_2 FS_{it} + \beta_3 FA_{it} + \varepsilon_{it} \quad \text{--- 1}$$

$$ROA_{it} = \beta_0 + \beta_1 SHF_{it} + \beta_2 BGD_{it} + \beta_3 FS_{it} + \beta_4 FA_{it} + \varepsilon_{it} \quad \text{--- 2}$$

$$ROA_{it} = \beta_0 + \beta_1 SHF_{it} + \beta_2 BGD_{it} + \{\beta_3 SHF_{it} * BGD_{it}\} + \beta_4 FS_{it} + \beta_5 FA_{it} + \varepsilon_{it} \quad \text{--- 3}$$

Where:  $ROA_{it}$  = Return on assets of company "i" in year "t",  $SHF_{it}$  = Shareholders' fund of company "i" in year "t",  $BGD_{it}$  = Board gender diversity of company "i" in year "t"  $FS_{it}$  = Firm size of company "i" in year "t",  $FA_{it}$  = Firm age of company "i" in year "t" \* = the interaction,  $i$  = individual firms, that is, 1 to 13 years for this study;  $t$  = the financial year, that is, 2011 to 2023 for this study;  $\beta_0$  = the intercept;  $\beta_1$ – $\beta_5$  = the slope coefficient of explanatory variables; and  $\varepsilon_{it}$  = error term

#### **4. Results and Discussions**

##### **Descriptive Analyses**

The descriptive statistics analyses the essential feature of the dependent variable (profitability) and independent variables (shareholders' fund, board gender diversity. It provides a necessary insight into the quality of the data upon which analysis was done.

**Table 3**

*Descriptive Statistics*

| <b>Variables</b> | <b>Obs.</b> | <b>Mean</b> | <b>Std. Dev.</b> | <b>Min</b> | <b>Max</b> |
|------------------|-------------|-------------|------------------|------------|------------|
| <b>ROA</b>       | 121         | 0.0495      | 0.0737           | -0.0967    | 0.1991     |
| <b>SHF</b>       | 121         | 0.3536      | 0.1939           | -0.0135    | 0.6269     |
| <b>BGD</b>       | 121         | 0.1557      | 0.1100           | 0          | 0.5714     |
| <b>FS</b>        | 121         | 10.8547     | 0.6619           | 7.8269     | 12.0787    |
| <b>FA</b>        | 121         | 48.9412     | 20.6365          | 6          | 100        |

**Source: Generated using Stata Version 14**

Table 3 shows the descriptive statistics of all the variables of the study. The result indicates that a consumer goods company has an average return on asset of 0.0495, which signifies that listed consumer goods companies earned 5% return on money invested on their assets with a maximum return of 20.9% and a loss of 10.7%. The standard deviation of 0.0737 indicates that the data were dispersed from the mean value. Shareholders' Fund has a mean of 0.3536 with a standard deviation of 0.1939. This means that on average, 35% of consumer goods companies' assets are financed by shareholders' fund. The data has a range; minimum of -0.0135 due to losses carried forward by (International Brew Plc. 2018-2023, Union Dicon Salt Plc. 2011-2019) and a maximum of 0.6269. This implies that the firm with the highest proportion of Shareholders' fund to total assets was 63% (Mcnichols Plc. 2012).

##### **Correlation Results**

The relationship between the dependent and explanatory variables is presented in Table 4. The correlation matrix Table shows the relationship between all the pairs of variables in the regression model; the relationship between all the explanatory variables individually with explained variables. The data is normally distributed, hence the choice of Pearson correlation over spearman correlation:

**Table 4**

*Correlation Result of the Independent Variables and Dependent*

| <b>VARIABLES</b> | <b>ROA</b> | <b>SHF</b> | <b>BGD</b> | <b>FS</b> | <b>FA</b> | <b>VIF</b> |
|------------------|------------|------------|------------|-----------|-----------|------------|
| <b>ROA</b>       | 1.0000     |            |            |           |           |            |
| <b>SHF</b>       | 0.3526     | 1.0000     |            |           |           | 1.05       |
| <b>BGD</b>       | 0.0573     | 0.2093     | 1.0000     |           |           | 1.09       |
| <b>FS</b>        | -0.0345    | -0.0195    | 0.1694     | 1.0000    |           | 1.04       |
| <b>FA</b>        | -0.0640    | 0.0402     | 0.0923     | -0.0862   | 1.0000    | 1.02       |

**Source: Generated using Stata Version 14**

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Tables 4 show a positive but weak relationship between shareholders' fund and return on assets with a correlation coefficient of 0.3526. Also, board gender diversity has positive but very weak relationship with return on assets.

**Table 5**

*Regression Results: Impact of Shareholders' Fund on Profitability*

| Variables                    | MODEL 1 (PCSEs) |           |       |       |
|------------------------------|-----------------|-----------|-------|-------|
|                              | Coef.           | Std. Err. | Z     | P> z  |
| <b>SHF</b>                   | 0.1351          | 0.0225    | 6.01  | 0.000 |
| <b>FS</b>                    | -0.0038         | 0.0071    | -0.54 | 0.588 |
| <b>FA</b>                    | -0.0003         | 0.0002    | -1.33 | 0.183 |
| <b>Cons</b>                  | 0.577           | 0.0798    | 0.72  | 0.470 |
| <b>R-Squared:</b>            | 0.1316          |           |       |       |
| Number of Obs.               | 221             |           |       |       |
| Wald chi2 (3)                | 37.43           |           |       |       |
| Prob>chi                     |                 | 0.0000    |       |       |
| Hausman Test Prob>chi2       |                 | 0.0007    |       |       |
| Groupwise Heteroskedasticity |                 | 0.0000    |       |       |

**Source: Generated using STATA version 14**

The overall  $R^2$  is 0.1316 which is the coefficient of determination, indicates the proportion of variance in the dependent variable (profitability) that is predicted by all the explanatory variables (shareholders' fund, firm size and firm age). As such, 13.16% variations in profitability were explained by the explanatory variables used in the model while the remaining 86.84% variation on profitability is explained by factors not included in the model.

Table 5 shows that the coefficient value for PCSEs model in respect of shareholders' fund is 0.1351 with P-value of 0.000. This signifies that at 1% level of significant; shareholders' fund has a positive and significant impact on profitability of the listed consumer goods firms in Nigeria. This implies that an increase shareholders' fund in the capital structure of the firms leads to an increase in the profitability level of the listed consumer goods firms in Nigeria.

**Table 6**

*Impact of Board Gender Diversity on Profitability*

| Variables                    | MODEL 2 (PCSEs) |           |       |       |
|------------------------------|-----------------|-----------|-------|-------|
|                              | Coef.           | Std. Err. | Z     | P> z  |
| <b>SHF</b>                   | 0.1354          | 0.0235    | 5.75  | 0.000 |
| <b>BGD</b>                   | -0.0025         | 0.0365    | -0.07 | 0.946 |
| <b>FS</b>                    | -0.0038         | 0.0070    | -0.54 | 0.589 |
| <b>FA</b>                    | -0.0003         | 0.0002    | -1.32 | 0.188 |
| <b>Cons</b>                  | 0.0570          | 0.0787    | 0.72  | 0.469 |
| <b>R-Squared:</b>            |                 | 0.1316    |       |       |
| Number of Obs.               |                 | 221       |       |       |
| Wald chi2 (4)                |                 | 37.75     |       |       |
| Prob>chi                     |                 | 0.0000    |       |       |
| Hausman Test Prob>chi2       |                 | 0.0000    |       |       |
| Groupwise Heteroskedasticity |                 | 0.0000    |       |       |

**Source: Generated using STATA version 14**

The result in the Table 6 shows that board gender diversity has a negative and insignificant impact on profitability of listed consumer goods companies in Nigeria. A p-value of 0.946 and coefficient of -0.0025 in profitability confirms the finding. This implies that, having gender-diverse board does not lead to better financial performance (higher ROA).

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**Table 7**

*Moderating Effect of BGD on the Relationship between SHF and ROA*

| Variables              | MODEL 1 (PCSEs) |              |           |           | MODEL 3 (PCSEs) |            |           |           |
|------------------------|-----------------|--------------|-----------|-----------|-----------------|------------|-----------|-----------|
| ROA                    | COEF            | STD<br>ERR   | Z         | P>/Z<br>/ | COEF            | STD<br>ERR | Z         | P>/Z<br>/ |
| SHF                    | 0.1351          | 0.0225       | 6.01      | 0.00<br>0 | 0.1537          | 0.0226     | 6.79      | 0.00<br>0 |
| BGD                    | -<br>0.0025     | 0.0365       | -<br>0.07 | 0.94<br>6 | -<br>0.0139     | 0.0359     | -<br>0.39 | 0.69<br>9 |
| FS                     | -<br>0.0038     | 0.0071       | -<br>0.54 | 0.58<br>8 | 0.0042          | 0.0074     | 0.58      | 0.56<br>5 |
| FA                     | -<br>0.0003     | 0.0002       | -<br>1.33 | 0.18<br>3 | -<br>0.0002     | 0.0002     | -<br>1.03 | 0.30<br>4 |
| SHF*BGD                | -               | -            | -         | 0.47<br>0 | -<br>0.0388     | 0.0049     | -<br>7.89 | 0.00<br>0 |
| Cons                   | 0.0577          | 0.0798       | 0.72      | 0.47<br>0 | -<br>0.0364     | 0.0837     | -<br>0.44 | 0.66<br>3 |
| R-Square               | 0.1316          |              |           |           | 0.1661          |            |           |           |
| Obs                    | 221             |              |           |           | 221             |            |           |           |
| Wald chi2(3)           | 37.43           | Wald chi2(5) |           |           | 552.90          |            |           |           |
| Prob>ch2               | 0.0000          |              |           |           | 0.0000          |            |           |           |
| Mean VIF               | 1.01            |              |           |           | 1.13            |            |           |           |
| Heteroskedastici<br>ty | 0.0000          |              |           |           | 0.0000          |            |           |           |
| Hausman                | 0.0007          |              |           |           | 0.0000          |            |           |           |

**Source: Generated using STATA version 14**

**Shareholders' Fund and Profitability with Board Gender Diversity**

From Table 7, the result of model one shows that shareholders' fund has a significant and positive impact on return on assets with a coefficient of 0.1351 and p-value of 0.000 at 1% level of significance, suggesting that an increase in shareholders' fund leads to an increase in profitability. However, when a moderator (board gender diversity) was introduced, the result shows that shareholders' fund has a negative and significant impact on profitability. This mean that board gender diversity moderates the relationship between shareholders' fund and profitability of listed consumer goods companies in Nigeria negatively.

**5. Conclusions and Recommendations**

In light of the above findings, the following conclusions were drawn: Shareholders' fund has a significant, positive impact on profitability of the listed consumer goods companies in Nigeria. This means that owners' equity decreases corporate failure and increases the firm's probability.

Board gender diversity has a negative impact on the relationship between capital structure and firm profitability of Nigerian listed consumer goods companies. This finding implies that having a more gender-diverse board changes the way capital structure affects profitability. Board gender diversity reduces the impact of shareholders' fund on profitability of listed Nigerian consumer goods firms.

Following the conclusions above, the study proffers the following recommendations in order to improve the profitability of consumer goods companies in Nigeria. The study recommends that the management of sampled companies in Nigeria should consider the use of ordinary shares, preference shares, retain earnings and reserve to finance their assets as at when due. Moreover, the management of the listed consumer goods companies in Nigeria should comply with the directive of the various regulatory bodies such as the Corporate Governance Code of Conduct (CGCC), Financial Reporting Council of Nigeria (FRCN) and the Central Bank of Nigeria (CBN) among others which encourages boards to strive for gender-balance board, with a minimum of 30% of female gender which can contribute to increase firm profitability.

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