Relationship between Gender Diversity and Board Size on Corporate Performance of Listed Insurance Firms in Nigeria.

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Abstract

The heterogeneity of the board is a sensitive issue because theories emphasized on how important it is to have female directors. Therefore, this study examined the female on board and board size on the corporate performance of listed insurance firms in Nigeria. used a sample of 25 insurance firms for the years 2011 through 2021. The MachameRatios Database and the annual reports of the sampled companies from the Nigerian Stock Exchange provided the study's data, which were then analyzed using ordinary least square regression. The study discovered that the financial success of businesses is influenced by female directors and board size. The results supported the argument that gender diversity enhances the financial outcomes of firms. Therefore, the study recommended that the management of insurance firms should have the right board member consisting of women inclusion to increase financial performance. The regulators or policymakers should make sure firms in NSC maintain the appropriate board size by ensuring that corporate governance code compliance is painstaking.

Keywords: Female member, board size, corporate governance, financial performance.

1. Introduction

The study of the factors affecting financial performance is as old as humanity. Shareholders and potential investors' top concern is the company's financial success (Kurawa & Garba, 2014). In general, participants in the capital markets are paying closer attention to and showing interest in the firm's performance matrix. The degree of a company's profitability is the most frequently used factor. The profitability of the company has evolved into a key criterion for deciding whether to invest or not in order to exploit their return on investment. Therefore, identifying the variables that affect financial performance would aid in bringing all stakeholders' interests into line and inevitably raise the firm's market value. According to recent studies, female executives contribute significantly to the company's financial performance and exceed their male peers (Francoeur, 2008). For instance, Salloum et al. (2019) research demonstrates that gender diversity improves the performance and growth of businesses. In Nigeria, there is political lobbying for the allocation of 35% of political positions to women (Nnabuife et al. 2015). Regarding the proportion of women to be appointed to the board, the 2011 Nigerian Code of Corporate Governance makes no mention of it. The need for more
women has created a demand for empirical research on gender diversity in Nigeria.

Concerns about its financial impact in relation to the composition of the gender, age, skills, ethnicity, and other demographic variables of the individual members of the board have led to a debate on the diversity of corporate boards around the world (Zhang et al. 2018). The National Insurance Commission labeled the insurance industry's performance in 2018 as unsatisfactory, and researchers are pondering the causes of the declining financial returns. There doesn't seem to be agreement on which part of board diversity has a greater impact on profitability, despite numerous attempts to demonstrate the relationship between each feature and the firm's performance (Caliyurt, 2017; Manczak et al. 2016). However, research consistently shows that board diversity generally has an impact on the company's financial performance and the caliber of business decisions (Gennari, 2016; Rao & Desta, 2016; Solimene et al. 2017).

Numerous scholars around the world have conducted substantial research on gender diversity (see, for example, Chijoke-Mgbame et al. 2020; Cicchiello et al. 2021; Olufemi, 2021; Tinsley et al. 2017). They show that having more female directors on the board has a beneficial impact on firm performance, as evaluated by return on equity, using a sample of Asian firms from Hong Kong, South Korea, Malaysia, and Singapore. However, the data from Nigerian listed businesses is essentially nonexistent and biased toward a specific industry (e.g. Garba, & Abubakar, 2014; Abubakar & Mamman, 2016). It is proposed that women directors can assist in pressuring management to show accountability beyond investors. This is particularly important in developing nations like Nigeria, where a high prevalence of corruption and weak institutional framework presents a significant challenge to economics and corporate governance. Not many studies seem to have looked at the impact of board gender diversity on the performance of listed firms in Nigeria, despite the growing need to diversify the board in the insurance firms in Nigeria and therefore, a quest for investigation.

The reason Nigeria was chosen for this study is that firm performance is unstable due to political unpredictability and intercultural variety, which has an impact on a firm's financial results. Additionally, the Nigerian Securities and Exchange Commission has mandated the inclusion of more female directors on boards. By utilizing their ideas, strategies, and abilities, women can contribute to the dynamics of boards through such a mandate. Numerous studies have investigated how the gender of a director affects boardroom dynamics and organizational outcomes (Abdullah et al. 2016; Chijoke-Mgbame et al. 2020; Olufemi, 2021). Therefore, this study looked at how female directors affect corporate performance in listed insurance firms within the Nigerian domain. Following is the paper's following section. Section 2 covers the relevant literature and supporting theory. Section 3 also presents the study methodology, and sections 4 and 5 discusses
the research findings, conclusion, and recommendations.

2. Literature Review and Hypothesis Development

The agency theory and resource dependence theory forms the basis of this investigation. The foundation of Pfeffer & Salancik’s (1978) resource dependence theory is the idea that a corporation is an open system that largely depends on external environment demands. In other words, the theory aims to understand the firm’s ecosystem, including its influencing elements and the forces that must interact to reduce its uncertainties (Ulrich & Barney, 1984). In order to reduce any externalities that could result from a firm’s reliant relationship with its environment, businesses need the appropriate governance board.

2.4.1 Agency Theory

Agency theory and stewardship theory, among other ideas, have been employed in corporate governance research to study the connection between board incentives and self-interest and argue that self-interest underpins much of organizational life. Given that there is an informational imbalance between managers and shareholders, managers can selectively provide information to shareholders. The issue between managers (agents) and shareholders is made more difficult by such control over crucial information (principals). The board of directors’ responsibility is to serve as a trustworthy information source for large corporate shareholders, enabling efficient manager oversight (Fama & Jensen, 1983).

According to stewardship theory, managers are driven to succeed and experience intrinsic gratification when they complete difficult tasks; as a result, their incentive extends beyond purely financial motives. According to stewardship theory, CEOs must have greater autonomy in order to maximize shareholder profits. Therefore, stewardship theory encourages combining the CEO and chairman roles to cut agency costs (Abdullah & Valentine, 2009; Demmke & Moilamen, 2011). Empirically, "a steward protects and maximizes shareholders’ wealth through business performance because by doing so, the steward’s utility functions are maximized," describes stewardship theory, which has its roots in psychology and sociology (Fadun, 2013). On the contrary to agency theory, stewardship theory emphasizes the role of senior-level managers as stewards, integrating their goals as part of the corporate unit (Beale and Hoel, 2010).

Female Diversity and Corporate Performance
The earlier empirical study on the impact of board diversity factors on firms’ corporate performance like, Recadina & Ouma (2017), Isingoma et al. (2017), Barroso-Castro et al. (2017), Grace et al. (2018), Kobuthi et al. (2018), and Rana & Wairimu (2017) used survey research design in their study to investigate the effect of board diversity on performance, and the outcome favoured female inclusion on the board. Also, another examined the impact of board gender diversity on profitability in Kenya, which revealed that the percentage of women directors has a positive. Board characteristics have a considerable impact on Iberian non-listed financial enterprises, according to Lopes et al. (2016).

According to Đặng et al. (2020) research, there is a link between board diversity and profitability as determined by the return on assets (ROA) and return on equity (ROE). The results contradict the business argument for board diversity in corporations. Similar findings were made by Rao and Desta (2016), who discovered that board size, board gender diversity, and ownership type had no discernible effects on profitability as indicated by return on equity (ROE) and return on assets metrics (ROA). Although gender diversity was found by Larsson & Olofsson (2017) to have no impact on profitability as determined by profit margin, profits before interest and tax (EBIT), and earnings per share (EPS).

Numerous studies have discovered a connection between board size and business success as evaluated by profitability indices, including Abdussalam & Okike (2018), Borlea et al. (2017), Sunday & Godwin (2017), and Ahmed et al. (2020). As a result, it was determined that board abilities and competence have a negative association with return on equity while board composition has a negative link with both return on equity and net assets per share. Also, board gender diversity and profitability as determined by the return on total assets were not found to be significantly correlated by Sunday & Godwin (2017). According to Abdussalam and Okike (2018), the proportion of women on firm boards in Nigeria has no bearing on return on equity, a measure of profitability. Additionally, Nadeem et al. (2019) discovered a link between profitability and gender diversity that was unfavorable. In view of the aforementioned, it was projected that board diversity components would have a significant relationship with the financial success of Nigeria’s listed insurance businesses. Therefore, the study hypothesis thus:

H1. There is a positive association between gender diversity and corporate performance.

**Board Size and Corporate Performance**

In terms of the organization's financial performance, the size of the board plays a significant role in measuring corporate governance. Various research on the size of the board and how it influences organizational performance have been carried out. Kalbuana et al. (2022) looked into the relationship between board size and company success and discovered that there was no positive correlation between the two. This conclusion holds up when considering...
specific firm attributes such as firm size, growth potential, board structure, director ownership, and industrial sector. Similarly, Alabdullah et al. (2021), the size of the board of directors has a substantial negative relationship with the corporation’s performance, particularly financial performance, with small boards having a higher likelihood of achieving improved financial success than large boards. In a similar vein, Nomran & Haron (2020), and Zia ur Rehman (2020) supported smaller boards as a means of enhancing organizational financial performance. Suhadak et al. (2018) argued that the business organization tends to perform poorly when board size increases, creating various communication gaps, different group dynamics, and an increase in organizational cost, further supporting the impact of small board size on organizational financial performance.

On the other hand, other research has revealed a strong connection between large boards and business financial performance. From the initial studies, Chen et al. (2006) and Andres and Valllelado (2008) concluded that a larger board size is more effective and efficient for monitoring and supervising the operations and activities of the organization. According to several research (Ilaboya & Ohiohka, 2016; Hasan et al. 2019), the performance of financial firms does not significantly correlate with the size of the board as a corporate governance indicator. While other research (including those by Osundina et al. (2016), and Xavier et al. (2015), Petchsakulwong, P., & Jansakul, N. (2018) and Kalbuana et al. (2022) shows a substantial correlation between board size and financial performance in the banking sector. Given the findings and as a result of the fact that the years 2013–2022, which constitute the scope of our investigation, are marked by high degrees of uncertainty as a result of the inflation unpredictability in Nigeria, we propose the following hypothesis:

H2: The higher the board size, the improved corporate performance.

3. Research methodology

This research focuses on the effect of gender diversity and board size on the financial performance of listed insurance firms in Nigeria. The research scope covers ten (10) years, from 2013 to 2022. A correlation research design was used in measuring the relationship among the variables of the study. The population of the study consists of twenty-five (25) listed insurance firms on the Nigerian stock exchange. Some filters were applied to arrive at the sample size as follows: First, among these will be deleted companies are those who deliberately left the stock market over the time period. Secondly, businesses that regulators delisted or put on technical suspension between 2013 and 2022; Third, companies engaged in the acquisition and merger plans during the research period; Fourth, any business that the government's agencies have nationalized; and, lastly, any business that is unable to give sufficient information about the study’s key variable. By taking these filters into account at the end of December 2021, the population will be...
reduced to nineteen (19) firms. Data was collected through secondary sources from the annual reports from NSE. The study model specification is as follows:

\[ \text{ROA}_{i} = \beta_{0} + \beta_{1}\text{FGEN}_{i} + \beta_{2}\text{FSIZE}_{i} + \beta_{3}\text{FAGE}_{i} + \beta_{4}\text{FSIZE}_{i} + \epsilon_{i} \]

Where;

- ROA = Return on assets (Corporate performance)
- FDIV = Female diversity
- BSIZE = Board size
- FAGE = Firm age
- FSIZE = Firm size
- \( \epsilon \) = Error term,
- \( \beta_{0} \) = is the intercept,
- \( \beta_{1} - \beta_{4} \) = represent the model parameters respectively.
- \( i \) = represent the firm.

Table 1

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Variable</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>Return on Asset</td>
<td>Natural logarithm of total asset</td>
</tr>
<tr>
<td>FDIV</td>
<td>Female Diversity</td>
<td>Female inclusion on the board.</td>
</tr>
<tr>
<td>BSIZE</td>
<td>Board size</td>
<td>Number of directors sitting on the board.</td>
</tr>
<tr>
<td>FAGE</td>
<td>Firm Age</td>
<td>Years of business incorporation to date</td>
</tr>
<tr>
<td>FSIZE</td>
<td>Firm size</td>
<td>Natural logarithm of total assets</td>
</tr>
</tbody>
</table>

Source: Generated from previous studies, 2022.

4. Result and Discussion

This section begins with descriptive statistics and a correlation matrix. It then presents the diagnostic test if VIF, heteroskedasticity test for normality, and regression results and discusses the findings in light of previous studies. The chapter concludes with highlight of the policy implications of the findings. The summary of the descriptive statistics of the variables are presented in table 2.

Table 2

<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>ROA</td>
<td>190</td>
<td>1.513</td>
<td>7.420</td>
<td>-32.56</td>
<td>13.21</td>
</tr>
<tr>
<td>FDIV</td>
<td>190</td>
<td>14.668</td>
<td>11.549</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>BSIZE</td>
<td>190</td>
<td>9.633</td>
<td>2.025</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>FAGE</td>
<td>190</td>
<td>9.983</td>
<td>7.745</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>FSIZE</td>
<td>190</td>
<td>7.326</td>
<td>0.363</td>
<td>6.7</td>
<td>8.04</td>
</tr>
</tbody>
</table>

Source: Stata 15 outputs, 2022.

Table 1 depicted the result of descriptive statistics of dividend policy on the corporate performance of listed insurance firms in Nigeria. The mean return on assets (a measure of the profitability of the insurance firms) is 1.513%. The maximum value is 13.21%, with a minimum value of -32.56%. The variable of female diversity reported a mean female director of 14.668, a maximum of five (5) directors, and a minimum of 0.
The descriptive statistics reported a mean board size of 9.6339, a minimum of 4, and a maximum board size of 17 directors. Also, the control variables of firm age of the insurance firms possessed an average value of 9.983, while the minimum value is 1 and the maximum value is 29 respectively. Similarly, firm size depicted an average value of 7.326 with a minimum value of 6.7, and a maximum value of 8.04 respectively. Next is the result of testing the relationship among the variables depicted in Table 3.

Table 3
Correlation Analysis among Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>ROA</th>
<th>FDIV</th>
<th>BSIZE</th>
<th>FAGE</th>
<th>FSIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDIV</td>
<td>0.029</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSIZE</td>
<td>0.339</td>
<td>-0.129</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAGE</td>
<td>0.102</td>
<td>-0.368</td>
<td>-0.043</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>FSIZE</td>
<td>0.088</td>
<td>0.133</td>
<td>0.061</td>
<td>0.496</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Source: Stata 15 outputs, 2022.

Table 2 presents the result of the correlation matrix; the correlation coefficient shows the extent and the direction of the relationship between the studied variables. Table 4 shows that the inference did not suffer from multicollinearity problems since the highest coefficient is 0.339 between ROA and BSIZE. A correlation of less than 0.9 could not pose severe multicollinearity problems (Hair et al. 2014). The diagnostic test conducted in this study was the variance inflation to check the presence of multilinearity or not see Table 4.

Table 4
Multicolinearity Test Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>1/VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAGE</td>
<td>1.84</td>
<td>0.544072</td>
</tr>
<tr>
<td>FSIZE</td>
<td>1.61</td>
<td>0.620134</td>
</tr>
<tr>
<td>FDIV</td>
<td>1.43</td>
<td>0.700496</td>
</tr>
<tr>
<td>BSIZE</td>
<td>1.06</td>
<td>0.945536</td>
</tr>
<tr>
<td>Mean VIF</td>
<td>1.48</td>
<td></td>
</tr>
</tbody>
</table>

Source: Stata 15 outputs, 2022.

Table 4 depicted variance inflation factor and tolerance level were computed and their results showed the same results as contained in Table 4 with a mean VIF=1.48. None of the VIF figures were up to 3.3, which was the threshold required for the presence of multicollinearity. Therefore, Table 5 depicts the regression result.

Table 5
Robust Regression Results

| Variable | Coef  | Std. Err. | Z     | P>|z| |
|----------|-------|-----------|-------|-----|
| FDIV     | 0.104 | 0.096     | 1.09  | 0.002|
| BSIZE    | 1.364 | 0.469     | 2.91  | 0.005|
Table 5 presents the results on the relationship between board gender diversity and corporate performance of insurance firms in Nigeria. The results reveal an R-squared of 0.417 while the adjusted r-squared is 0.528 indicating that 53% percent of changes in return on the asset are attributable to the combined effect of the diversity and board size respectively. The results also indicated that F-statistic is 2.37 with a probability of 0.000 indicating that the combined effect of the independent variables on corporate performance represented by return on asset is statistically significant. The probability of heteroskedasticity was significant, which implies the presence of heteroskedasticity.

Table 5 also depicted estimated results on the relationship between gender diversity, and firm performance of listed insurance firms in Nigeria. The outcome of the regression indicated that the female gender (FDIV) is positive and significantly related to corporate performance ($\beta$.1038773, $P < 0.01$). This implies that the presence of women directors influences the financial performance of listed insurance firms in Nigeria. The result is consistent with the proposition of the Agency Theory that diversifying the board improves a firm’s decision-making since female members are expected to provide additional skills to enhance the decision-making of the firms. This result is consistent with the research results of Recadina & Ouma (2017), Kobuthi et al. (2018), and Mustapha (2019) who found that long gender diversity is empirically significant to determine the effectiveness of corporate performance.

Similarly, shows a positive and insignificant relationship between board size and financial performance (ROA) of insurance firms with a level of significance of p-value of (0.005). The result revealed a coeff. of 1.364, t-value of 1.23, and P.value 0.005. This suggests that an increase in the board size relatively does not comply with appropriate board member regulations. Perhaps most insurance firms maintain different board sizes. Therefore, the second hypothesis that there is no significant relationship between board size and financial performance (return on asset) is accepted. This result is consistent with the results of Progress et al. (2014); Osundina et al. (2016).

Table 5 also depicted the control variables which indicates that firm age (FAGE) has a
coefficient of 0.1981986 meaning that one percentage change in firm age leads to 0.1981986 changes in return on assets in the positive direction with a probability value of 0.226 which is not significant at 5 percent level which is consistent with the research results of Mustapha (2019). Furthermore, firm size also indicates a significant positive and insignificant with a (coeff. 1.200328, P>0.001) meaning a positive relationship with financial performance. This signifies that a bigger firm is more likely to have improved financial performance, this result is consistent with the research results of Progress et al. (2014); Osundina et al., 2016; and Mustapha (2019).

5. Conclusion and Recommendation

The study investigates the relationship between the female gender, the board size, and the financial performance of listed insurance firms in Nigeria. It concludes that female member is positively and significantly associated with financial performance (ROA). It is therefore concluded that having a board of directors of gender inclusion will contribute to influencing the financial performance of listed insurance firms in Nigeria. In addition, the study found a positive, and statistically significant association between board size against financial performance (ROA) of listed construction and real estate companies in Nigeria.

Hence, the study concluded that board size not complied with the corporate governance code as amended for nonfinancial firms as to the appropriate number of sizes of the board. Based on the conclusion, the study recommended that the management of insurance firms should have the right board member consisting of women inclusion to increase corporate performance and maintain the appropriate board size by ensuring that corporate governance code compliance is considered.

References


Abubakar, A., & Mamman, A. (2016). Board Diversity and Financial Performance: Panel Data Evidence from Quoted Deposit Money Banks in Nigeria. In 1st international conference on social and management science research organized by faculty of
social and management at: North West University, Kano.


International Journal, 36(7), 801-820.


Isingoma, B. E., Samuel, M., Edward, K., & Maina, G. W. (2017). Socioeconomic and demographic factors influencing feeding practices,
morbidity status, and dietary intakes of children aged 7–24 months in rural Uganda. Ecology of food and nutrition, 56(1), 1-16.


