THE IMPACT OF BOARD DIVERSITY ON THE PERFORMANCE OF BANKS

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Abstract

This paper empirically investigated the impact of board diversity on the performance of 13 banks in Jordan during the period of 2005–2020. Panel data was collected from the Amman Stock Exchange (ASE) and the formal websites of the different banks. Fixed-effect and random-effect techniques have been applied to check the impact of board diversity on banks’ performance. The results found that the larger the size of the bank, the better their return since they hold more deposits, and this increase their investment opportunities. In addition, the larger the size of the board, the better the performance since more experienced directors would be included in the decision-making and higher added knowledge in the decision-making process. Including more board members should enrich the decision-making process with high experience and know-how characteristics. In addition, this paper confirmed that Jordanian banks should include more women in their boards since sharing their managerial skills and experience should enhance banks’ performance.

Keywords: Board Diversity, Banks Performance, Amman Stock Exchange, Fixed-Effect Technique

1. INTRODUCTION

Boards of directors are considered the guardians of shareholders as they maintain a close eye on the actions and decisions of top management. The role of boards takes on greater importance in the banking sector due to various complexities especially, limited competition, strict regulations, and high informational asymmetries. Accordingly, a lack of bank governance can lead to tremendous costs (Pathan & Faff, 2013) since boards contribute to controlling managers' behaviors and identification of their strategic direction (de Andrés & Vallelado, 2008). Furthermore, well-governed banks help non-financial firms to operate properly and contribute to the distribution of resources throughout the economy in an efficient manner (Pathan & Faff, 2013).

Several practitioners have emphasized the importance of diversity in boards (Ujunwa, Okoyeuzu, & Nwakoby, 2012) and the observational role of its directors (Campbell & Mínguez-Vera, 2008) because of organizational scandals such as the infamous Enron scandal. Board diversity has received increasing interest from practitioners and academics alike, due to the proposed benefits acquired from diversity in boardrooms (Dang, Nguyen, & Vo, 2014). Diversity of boardrooms based on gender has been a focal point for many countries, where several laws have been enacted regarding the participation of women in the boards of publically traded companies. The purpose of these
The role of board directors as a governance mechanism is amplified in banks compared to other nonfinancial institutions. This may be attributed to their guardian obligations, which include not only shareholders but also creditors and controllers as well (Macey & O’Hara, 2003). Therefore, the boards of banks play an essential part in effective governance (Pathan & Faff, 2013). Supporters of board diversity suggest that diversity results in both ethical and economic benefits (Ujunwa et al., 2012). From an ethical perspective, diversity is desirable since it is believed to be unfair to exclude certain individuals from top corporate positions based on gender, race, religion, etc. (Carter, Simkins, & Simpson, 2003). From an economic perspective, board diversity leads to improved profitability and creates value for investors (Marashdeh, Alomari, Khataybeh, & Alkhataybeh, 2021). This may be attributed to factors such as incomparable qualities that create added value, increased understanding of the marketplace, and increased innovation and creativity (Carter et al., 2010).

Moreover, diverse boards result in a more creative solution to problems due to differences in perspectives and wider access to information (Erhardt, Werbel, & Shrader, 2003). In addition, a higher degree of board diversity sends a positive message to the community as a whole including potential job applicants, consumers, and suppliers, among others (Rose, 2007). A gender and racially-diverse board indicates that the firm is able to address the needs of a varied marketplace, comprehend the dynamic business environment, and provide proper advice to firm executives (Miller & Triana, 2003).

The backgrounds and characteristics of board directors are increasingly being recognized as important factors to consider when forming a board. According to van der Walt and Ingley (2003), “the concept of diversity relates to board composition and the varied combination of attributes, characteristics and expertise contributed by individual board members in relation to board process and decision making” (p. 219).

Several studies have examined the impact of gender diversity (Campbell & Mínguez-Vera, 2008; Carter et al., 2003; Dang et al., 2014; Adams & Ferreira, 2009) and nationality on firm performance (Randoy, Thomsen, & Oxelheim, 2006; Ararat et al., 2010). Nonetheless, empirical evidence is still lacking regarding the relationship between board diversity and banks’ performance (Ararat & Yurtoglu, 2021; Pathan & Faff, 2013).

Boards of banks are dissimilar to boards of nonfinancial firms in terms of size and independence, as they tend to be larger and more independent in banks compared to non-financial firms (de Andrés et al., 2012). Directors of bank boards are also subjected to more examination than directors of listed non-bank companies. Moreover, they are held accountable to more than one party including shareholders, securities and trade controllers, banking regulators, and non-bank entities such as depositors given that individual bank failures may be passed on to other banks. They may also confront greater liability risk than
that faced by directors of non-bank entities (Adams & Ferreira, 2012) and advise managers to an expansive extent on the issues of strategy distinguishing and use (de Andrés & Vallelado, 2008).

**Agency theory**

The premise behind agency theory is the fact that owners do not manage their companies but rather hire corporate managers to carry this responsibility for them (Ujunwa et al., 2012). One mechanism by which managers are controlled and monitored is the board of directors, who also play a crucial role in the development of managerial policies in companies (Fama & Jensen, 1983). Accordingly, the board of directors represents the solution to agency problems between managers and owners (Dang et al., 2014).

The presence of women and foreign directors has been suggested to increase the board’s effectiveness and in turn firm performance based on the findings of agency theorists. This is related to the fact that boards tend to engage more in individual thinking and less in groupthink when diversity exists within the board (Ujunwa et al., 2012). Francoeur, Labelle, and Sinclair-Desgagné (2007) also indicated that diverse boards, in terms of women, ethnic minorities, and foreigners, may lead to the creation of new ideas for complex issues. This is supported by Dang et al. (2014) who stated that female directors may be more active in the monitoring and controlling of managers as they are likely to ask more questions and shed light on different perspectives compared to other board members. In addition, board diversity would result in increased board independence as members are free to ask questions as they see fit that would not usually be asked by directors from a similar background (Carter et al., 2003). As a result, board diversity is expected to improve firm performance by promoting board independence.

### 3. RESEARCH METHODOLOGY

#### 3.1. Sample used

This paper collected data for 13 different banks listed in the Amman Stock Exchange (ASE) during the period from 2005 to 2020. The data were extracted from multiple sources (banks’ annual reports and the ASE website). Each bank was contacted by the researcher in order to collect any missing or needed information. This paper applied the ordinary least squares (OLS) and fixed/random-effect techniques in order to check the most suitable technique for the data, based on the maximum likelihood and Hausman test the most preferable technique is the fixed-effect results. The following sub-sections will address the study variables and their impact on bank performance. The suggested hypotheses will be stated at the end of each variable.

#### 3.2. Model development

**3.2.1. Dependent variable: Bank performance (ROA)**

Return on assets (ROA) is the most effective, extensively accessible financial measure of company performance, despite its lack of perfection. The reason behind this is that it provides a holistic view of the fundamentals of business performance including the performance provided in the income statement and the total assets invested in a business. ROA is thus less powerless against transient gaming that can occur in income statements as many assets, such as property, plant, equipment, and intangibles, require long-haul resource choices that are difficult to influence in a brief timeframe.

**3.2.2. Independent variables**

**Board gender diversity (BGD)**

Gender diversity in the boardroom has become an increasingly important topic in the finance literature, as well as in the public eye (Carter et al., 2003; Adams & Ferreira, 2009; Gul, Srinidhi, & Ng, 2011). The number of female board members has slowly increased over the years. In the US, for example, based on Catalyst (2021) in 1990, the average percentage of female directors rose from 5.6% to 15.2% in 2010. Such an increase in female representation on boards falls in accordance with the notion that female directors create value for firms. This notion relies on the fact that female directors work harder and exhibit better communication skills, which result in improved solutions and decisions made by the entire board (Robinson & Dechant, 1997). Women are also expected to be more accomplished and dedicated as directors since they need to possess exceptional competencies to reach directorship positions (Eagly & Carli, 2003). Moreover, women generally value their responsibilities as directors and tend to be more prepared for the board meeting as opposed to other directors. Hence, women directors can improve the effectiveness of a board’s decisions and information flow through the extra efforts they place on their tasks.

Results of previous studies concerning the effect of female directors on firm performance are inconclusive. For example, Gul et al. (2011) investigated the impact of gender diversity on the performance of boards and concluded that the higher the diversity of gender in boards, the better the performance of the company and the higher the stock price. In addition, Carter et al. (2003) found that the higher the ratio of female directors on boards, the higher the performance of firms. Also, Adams and Ferreira (2009) documented that the presence of female directors affects highly attendance in board meetings. Although these findings provide insight into the value added by the representation of women on boards to firms, they do not provide empirical evidence of the direct effect of the percentage of female directors on firm performance. This is supported by the findings of Farrell and Hersch (2005) which indicated that better-performing firms were associated with the presence of women in their boards, but did not report any significant abnormal returns when women were announced to be added to a board.

According to Harrigan (1981), the reason behind these inconsistent results may be attributed to the use of different periods of studies, different samples, or different sectors, as well as endogeneity issues. Interestingly, Adams and Ferreira (2009) reported that large firms are more likely to hire female directors. Similarly, this trend can be found in firms operating in service-oriented, labor-
intensive, or industries that sell women's products (Harrigan, 1981). Accordingly, firms that are characterized by weak governance and resistance to takeovers could benefit from the inclusion of additional female directors (Farrell & Hersch, 2005). Based on the above discussion, this paper expects that including more female directors might increase the performance of banks.

**Board size (BS)**

Hermelin and Weisbach (2003) argued that in non-financial firms, board size negatively affects performance. This finding may be attributed to factors such as nimbleness, cohesion, correspondence, difficulty in expressing opinions during board meetings, and “free-riding” director problems (Jensen, 1993), as well as argued by Lipton and Lorsch (1992). Jensen (1993) suggested that larger boards may be easier to control from the point of view of CEOs given the low incentive of directors to collect information and monitor managers. Accordingly, numerous studies (e.g., Eisenberg, Sundgren, & Wells, 1998) have indicated an inverse relationship between board size and firm performance. Despite these findings, Coles, Naveen, and Naveen (2020) argued that a firm's economic environment plays an important role in this relationship. This implies that firms with noteworthy exhorting needs (for example, differentiated and vigorously obligation-financed firms) may profit from larger boards (Coles et al., 2020; Linck, Netter, & Yang, 2008; Adams & Mehran, 2012).

In the banking literature, studies have found positive, concave, and no relationship between board size and performance, indicating mixed results (e.g., de Andrés & Valledolo, 2008; Adams & Mehran, 2012). These findings may lose value if the experimental strategies utilized do not control for every single significant wellspring of endogeneity in a correct manner (Wintoki, Linck, & Netter, 2012). Based on the previous discussion, this paper expects that board size does impact bank performance.

**Board independence (BI)**

Independent directors place a great deal of attention on maintaining their reputation in the directorship market, as a result, this makes them better monitors of managers (Fama & Jensen, 1983). However, empirical studies indicate otherwise, as findings on the direct relation between independent directors and firm performance are inconsistent (Bhagat & Black, 2001). Accordingly, an independent board may bring down the expense of obligation financing, or bring down eccentric hazard, efficient hazard, and cost of value for a firm (Ashbaugh-Skaife, Collins, & LaFond, 2006). In banks, the presence of independent directors may lead to improvements in the quality of earnings and provide managers with suitable compensation incentives (Cornett, McNutt, & Tehranian, 2009).

In the study conducted by Daniel, Hirshleifer, Subrahmanyam (1998), it was found that independent directors had a negative relation to abnormal returns in bidding banks. This contradiction may be due to the selection criteria of directors as independent directors may be selected for reasons that do not comply with the goal of shareholder wealth maximization. Other reasons may be attributed to the presence of strict regulations and severe penalties, which may have affected the decision of qualified and experienced directors to serve on the bank's board. It can also be associated with the bank's ongoing acquisition strategy, where the bidder invites directors, who may not necessarily be independent directors, to join their boards to encourage different targets. Similarly, inside directors may be considered important gains for banks with a large degree of information asymmetry, as they possess a great deal of firm-specific knowledge (Fama & Jensen, 1983). This is especially important for firms operating in dynamic environments which require the presence of specialized knowledge. Thus, based on the previous discussion, this paper expects that independent directors have a negative impact on bank performance.

**Board age diversity (BAD)**

Age diversity may improve bank profitability due to improvements in the networks of the board, experiences, knowledge, and resources. On the other hand, age diversity may adversely affect bank profitability as it may lead to lower group cohesion and cognitive conflicts. Accordingly, the findings of existing studies have provided mixed results and have mainly focused on studying non-financial firms with little attention to the banking sector. Researchers, such as Mahadeo, Soobaroyen, and Hanuman (2012) and Ararat et al. (2010), found that age diversity leads to improved firm financial performance. While others have found that it weakens firm profitability, social performance, and strategic changes (Tarus & Aime, 2014; Hafsi & Turgut, 2013). Based on the above-mentioned information, this paper expects that age diversity may have an impact on bank profitability.

**Board national diversity (BND)**

Board decent variety additionally identifies with the nationality of board executives. Because of the internationalization of business, firms are progressively requesting chiefs with broad information and contacts in outside business sectors so as to connect the firm to the diverse settings related to the nations they work in (Carpenter, Sanders, & Gregersen, 2001). The presence of foreign directors not only affects the financial aspect of a firm's performance but also stretches out to the arrangement of administrative mastery and specialized coordinated efforts, in this way enhancing innovativeness and development. In addition, outside directors are relied upon to impact the heterogeneity of thoughts, encounters, and perspectives (Samha, Dahawy, Hussainey, & Stapleton, 2012). Fogel, Lee, Lee, and Palmberg (2013) also recommended that board diversity in terms of nationality may decrease the asymmetry of data and organization costs; enhance the monetary adaptability of local firms by expanding the pool of potential speculators and financing openings; and extend cross-outskirts streams of information and innovation.

After a review of diversity research, it has been found that although well-known forms of task-
oriented diversity may prompt positive intellectual and flagging results such as imagination, innovation, and better image (Ruigrok, Peck, & Tacheva, 2007). Jayne and Dipboye (2004) attributed this to the different commitment levels, satisfaction levels, levels of perceived discrimination, and other negative conduct and attitudinal results shown by dissimilar individuals. This conclusion is supported by Westphal and Milton (2000) who suggested that demographic differences reduce social cohesion among different groups and that social boundaries decrease the impact of minority viewpoints on group choices.

Other researchers, such as Masulis, Wang, and Xie (2012), revealed that outside directors have little information on national bookkeeping principles, laws and regulations, administration standards, and management methods, thereby hindering their ability to assess managerial performance or question managerial decisions. Based on their study, Masulis et al. (2012) found that foreign directors in the US demonstrate lower returns on assets, especially if they have a weak business presence in their home countries. These results fall in line with the findings of research in psychology since findings have shown that working with demographically different individuals is often related to unfavorable consequences (Riordan, 2000). Another reason to be taken into consideration for the negative influence foreign directors have on firm performance is that they have a weak business presence in their home countries. These results fall in line with the findings of research in psychology since findings have shown that working with demographically different individuals is often related to unfavorable consequences (Riordan, 2000). Another reason to be taken into consideration for the negative influence foreign directors have on firm performance is that they have a weak business presence in their home countries. These results fall in line with the findings of research in psychology since findings have shown that working with demographically different individuals is often related to unfavorable consequences (Riordan, 2000).

Regarding the variable of bank size, a review of existing literature provided favorable outcomes. For example, Almazari (2011) found a positive relationship between bank size and financial performance. They reported that bank size could be an essential factor in improving a bank’s profitability and performance, thus creating additional resources to generate funds and in turn improve the bank’s returns. This could also be attributed to the fact that larger banks have more assets on hand and thus have more opportunities to reduce risks through diversification, hence receiving higher returns. Karakaya and Er (2013) also found a positive relationship between bank size and profitability and suggested that Islamic banks tend to have higher profitability compared to commercial banks. They also indicated that larger banks gain more profits. This paper relied on the natural logarithm of total assets as a measure of size. Consequently, it is expected that the size of the bank has an impact on its financial performance.

### 3.3. Model

This paper empirically investigated the following model using the fixed- and random-effect techniques (the Hausman test was used to check the most suitable model to interpret the results):

\[
ROA = \alpha_0 + \alpha_1BGD + \alpha_2BS + \alpha_3BI + \alpha_4BAD + \alpha_5BND + \alpha_6BankS + \epsilon
\]

where, \(ROA\) is the return on assets as a measure of profitability; \(BGD\) is the percentage of women directors to the total number of directors on board as a measure of board gender diversity; \(BS\) is the natural logarithm of a number of directors on the board as a measure of board size; \(BI\) is the percentage of independent directors to a total number of directors on board as a measure of board independence; \(BAD\) is a dummy variable (1 if less than the mean age and 0 otherwise) as a measure of board age diversity; \(BND\) is the percentage of foreign directors on board to the total number of directors on board; \(BankS\) is the natural logarithm of total assets as a measure of banks size.

### 4. RESULTS AND DISCUSSION

This section will provide the descriptive statistics in Table 1 and the regression results in Table 2, respectively.

#### Table 1. Descriptive statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>St. dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board gender diversity (BGD)</td>
<td>0.000</td>
<td>0.333</td>
<td>0.1530</td>
<td>0.062</td>
</tr>
<tr>
<td>Board size (BS)</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>0.102</td>
</tr>
<tr>
<td>Board independence (Bh)</td>
<td>0.111</td>
<td>0.355</td>
<td>0.285</td>
<td>0.034</td>
</tr>
<tr>
<td>Board age diversity (BAD)</td>
<td>0.000</td>
<td>0.722</td>
<td>0.160</td>
<td>0.143</td>
</tr>
<tr>
<td>Board national diversity (BND)</td>
<td>0.487</td>
<td>12.876</td>
<td>9.687</td>
<td>1.654</td>
</tr>
<tr>
<td>Bank size (BankS)</td>
<td>0.012</td>
<td>0.354</td>
<td>0.092</td>
<td>0.354</td>
</tr>
<tr>
<td>Performance</td>
<td>0.012</td>
<td>0.354</td>
<td>0.092</td>
<td>0.354</td>
</tr>
</tbody>
</table>

As reported in above Table 1, we notice that the highest standard deviation is for the bank size variable which suggests that banks in Jordan highly differ in size, more specifically, the total assets differ as some banks hold more deposits and people feel more secure to deal with such banks. In addition, the variation is high when it comes to performance, and this in one way or another highly explained by the size of banks. The higher the deposits provided by customers, the better the performance since banks will be able to provide more loans and collect more interest. Furthermore, the results suggest that some banks do not believe that national diversity has anything to offer for performance, as they have no diversity based on nationality. An interesting result reported that at least one bank has six women directors on the board and this comes in line with Garanina and Muravyev (2021) who affirmed that having at least three women directors is necessary to achieve better performance.

On the other hand, the following Table 2 reports the results for the fixed-effect technique regression including all variables provided in
the model developed in Section 3. The significant board diversity variables that affect the performance of banks are board gender diversity, board size, board age diversity, and bank size. The main interesting result reported in this empirical paper that there is a positive significant impact of board gender diversity on banks’ performance in Jordan, the higher the diversity, the better the performance. More specifically, banks that include women in their boards performed better and this result is in line with Mastella, Vancin, Perlin, and Kirch (2021) and Ararat and Yurtoglu (2021) but contradicts the results of Marashdeh et al. (2021). This result confirms that Jordanian banks increased the presence of women on boards and this affected the performance significantly in a positive means because they managed to add their adequate experience and managerial skills.

Table 2. The panel data analysis findings of fixed-effect results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>T-statistic</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board gender diversity</td>
<td>0.054**</td>
<td>4.03</td>
<td>0.000</td>
</tr>
<tr>
<td>Board size (BS)</td>
<td>0.063**</td>
<td>2.87</td>
<td>0.004</td>
</tr>
<tr>
<td>Board independence (IB)</td>
<td>0.987</td>
<td>5.78</td>
<td>0.000</td>
</tr>
<tr>
<td>Board age diversity (BAD)</td>
<td>0.0294**</td>
<td>2.31</td>
<td>0.021</td>
</tr>
<tr>
<td>Bank size (BankS)</td>
<td>-0.746</td>
<td>-1.23</td>
<td>0.226</td>
</tr>
<tr>
<td>Bank size (BankS)</td>
<td>0.073***</td>
<td>3.32</td>
<td>0.001</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.354</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>189.78**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: **, ***, and **** show the statistical significance levels at 0.10, 0.05, and 0.01 levels, respectively.

In addition, the larger the board size, the better the performance, and this has been confirmed in several studies such as Arsalan, Karan, and Ekşi (2010) and Kilic, Kuzey, and Uyar (2015), and they argued that large boards increase the effectiveness of decision-making and the know-how of different board members. In the same sense, the significance of board age diversity on banks’ performance was confirmed that the higher the age diversity, the better the experience of board members and thus can share their high quality of solving problems gained throughout the years (Darmadi, 2013; Song, Yoon, & Kang, 2020). Lastly, several papers confirmed that larger banks perform better as reported in this empirical paper and this confirms that larger banks do hold higher amounts of deposits and can diversify their portfolios and invest in high-yield projects (Byoum, Chang, & Kim, 2016; Marashdeh et al., 2021).

5. CONCLUSION

This paper investigated the impact of board diversity on Jordanian banks’ performance. The panel data was collected from Amman Stock Exchange for the period of 2005–2020. The fixed-effect technique results were found significant than the random-effect results using the Hausman test. The model developed included several variables to check the board diversity, such as board age diversity, board independence, board national diversity, board size, and board gender diversity. The results found that the larger the bank size, the higher the age diversity, and the larger the board size affects the performance significantly and positively. Specifically, accepting more deposits should allow banks to invest more and perform better. In other words, the results found that the larger the size of the banks, the better their return since they hold more deposits, and this increases their investment opportunities. In addition, the larger the size of the board, the better the performance since the more experienced directors included in the decision-making the better the added knowledge and the better the decision. Finally, the paper recommends that Jordanian banks should increase women directors in their boards since they can add their managerial skills and experience and this should maximize the return significantly.

REFERENCES


