




“Impact of the board of directors’ characteristics on firm performance: A case of Bahraini listed firms”

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IMPACT OF THE BOARD OF DIRECTORS' CHARACTERISTICS ON FIRM PERFORMANCE: A CASE OF BAHRAINI LISTED FIRMS

Abstract

This study aims to examine the impact of the characteristics of the board of directors (BOD), namely board independence, board size, frequency of board meetings, and board gender diversity, on firm performance. This quantitative study uses data from all firms listed in the Bahrain Bourse for 2019 and 2020. Data on BODs were taken from the companies' governance reports, while data on firm performance, namely return on assets (ROA), return on equity (ROE), and earnings per share (EPS), were taken from annual reports. Based on the ordinary least squares (OLS) approach, the results show insignificant relationships between BOD characteristics and firm performance. Board independence, size, frequency of meetings, and gender diversity insignificantly enhance Bahraini firms' performance. The results indicate that firms may need to effectively implement BOD mechanisms. Moreover, other factors may moderate the impact of BOD mechanisms on firm performance. Hence, the study suggests a need for more regulations and policies to increase the effectiveness of board members. This study alerts policymakers, firms' shareholders and stakeholders, and researchers to the need to increase directors' roles in boosting company performance, especially in developing countries, where it is complicated to force business to follow best governance practices.

Keywords

corporate governance, board of directors, firm performance, independence, meeting, gender diversity

JEL Classification

M40, G34, G38, L25

INTRODUCTION

Global financial scandals and fraud massively affect economies worldwide (Al-Absy & Ntim, 2020; Al-Absy, 2022b) and have caused large businesses to fail (Al-Absy, 2022a). In addition, successive corporate scandals and the collapse of Enron shook shareholders' confidence in the market. Hence, regulators and governments attempt to enhance and revise their codes of corporate governance (CG).

The BOD is the foundation and an essential component of corporate achievement as one of the mechanisms of CG in organizations. The board should appoint the executive director and the senior supervisor to decide the organization's utilitarian obligations. In reality, each business's primary goal is to increase the wealth of its shareholders (Gharaibeh & Qader, 2017). Hence, the board has an essential role in affecting firms' vision, mission, and objectives (Kanakriyah, 2021).

In this manner, the BOD effectiveness relies upon a group of qualities that influence the organization's running. Researchers have investigated the critical qualities of the BOD and their implications for financial executives. The changing circumstances of the COVID-19 pandemic

and business climate emergencies have attracted the interest of specialists and administrative bodies to analyze organizations' financial execution and evaluate the productivity of the BOD (Kanakriyah, 2021).

Numerous Asian nations have implemented regulatory changes; however, these reforms have been based on Western CG rules and legislation and have not considered that they could be only partially implemented by Asian nations (Cheung & Chan, 2006). Thus, several difficulties result from this (Hashim & Devi, 2008). When attempting to tailor and adapt CG principles, Asian nations (including Bahrain) have faced some challenges because their economies have diverse traits (Al-Rassas & Kamardin, 2016; Hashim & Devi, 2008). Several factors can make successful governance difficult and they include growing company ownership concentration, a high rate of government interference, inadequate policy enforcement or a weak legal system, and ineffective information quality transmission (Cheung & Chan, 2006; Hashim & Devi, 2008).

While the role of CG, including the BOD, in firm performance has been extensively examined (Al-Absy et al., 2021), especially in developed countries (Taghizadeh & Saremi, 2013), the results are different. Only some studies have examined the effect of BODs in emerging economies (Taghizadeh & Saremi, 2013) while in the Gulf Cooperation Council (GCC), there are a few studies conducted on the influence of BOD mechanisms on firm performance.

Regarding Bahrain, researchers have yet to examine the mechanisms of CG, and there is a need for more studies on the role of BOD mechanisms in firm performance. The few prior investigations yielded ambiguous findings. Hence, the current study attempts to explore the effect of four BOD characteristics (independence, size, meeting frequency, and gender diversity) on firm performance by using three proxies: return on assets (ROA), return on equity (ROE), and earnings per share (EPS). The study used data from 39 of the 42 companies listed on the Bahrain Bourse for 2019 and 2020 (78 firm observations).

This study contributes to the body of knowledge on firm performance using agency theory as a fundamental theory and resource dependence theory as a supportive theory to examine the association between BOD characteristics and firm performance. Further, the study provides empirical evidence on 2019 and 2020. Practically, the findings assist legislators and policymakers in understanding the role of BOD characteristics in improving firms' performance, thereby helping them re-evaluate their role in monitoring BOD characteristics and improving the effectiveness of BODs. Shareholders may also benefit from this study by understanding the effects of BOD characteristics on firm performance. Enhancing the BOD's effectiveness will help align the interests of managers and shareholders. Lastly, the findings will be helpful to researchers in this field.

1. LITERATURE REVIEW

CG is a set of rules, procedures, and practices that motivate, control, and lead organizations. CG entails balancing out the interests of the organization's various stakeholders. It offers a structure for organizations to achieve their main objectives. In general, BODs are accountable for the governance of companies. The BOD sets work approaches, techniques, projects, and objectives, characterizes tasks and powers for each corporate division and system to assess execution, and frames connections with stakeholders (Elsayed & Elbardan, 2018). Boards also should engage in corporate

social responsibility, which brings a competitive advantage as a critical issue in the global business community (Alkadash & Aljileedi, 2020).

In Bahrain, the Minister of Industry, Commerce, and Tourism released Decision No. 19 of 2018 in accordance with Article 358 of the Commercial Companies Law (CCL) to establish the CG Code (CGC). This code describes the minimum required standards for CG and applies to all Bahraini firms (except for enterprises providing regulated financial services and licensed by the Bahrain Central Bank, which are subject to a separate CG code). It requires the BODs to implement the nomination,

audit, remuneration, and corporate CG. In addition, it permits the board to establish additional specialized committees as required by company activities. Closed joint stock companies must be governed by a board of at least three and up to fifteen directors, each serving a maximum term of three years and re-appointed by the general assembly. The same rules apply for public joint stock companies, except the minimum board size is five directors (Radhi et al., 2020).

The respected government of Bahrain intends to promote better CG practices throughout the country to foster investors' confidence and enhance economic development. The CGC of the Kingdom of Bahrain is based on nine core values that adhere to best international practices. The CGC states that an informed, collegial, and effective board shall lead a company. Officials and BODs shall be loyal to their companies, and the BOD shall be responsible for establishing an efficient and clear management team structure to drive business-related activities. Moreover, the BOD shall be responsible for communicating with and encouraging shareholders to design business processes.

In terms of BOD composition, the CGC states that the size of the board for each firm should not exceed 15 members and that its size and composition should be reviewed periodically to ensure that it is small enough to make effective decisions but big enough to have members who can contribute from different fields and points of view. The BOD must recommend to shareholders changes in the size of the board of directors when the required change requires amending the firm's articles of association. In addition, at least half of the firm's BOD members must be non-executive directors, and at least three must be independent directors. In addition, the chair of the board ought to be an independent director and not the CEO, so there is a proper overall influence and more independent decision-making.

Concerning the frequency of board meetings, the board ought to meet regularly, at least four times per year; all chiefs ought to go to the meetings whenever possible, and the chiefs ought to keep up with casual correspondence between meetings. The board ought to be collegial and deliberative, to

benefit from every individual's judgment and experience. The chair should advance shared trust, open conversation, helpful disputes, and back for choices after they have been made. One of the responsibilities of the board is to form an audit committee consisting of at least three members, most of whom are independent. Notably, the committee chair should be an independent director. One or more directors from outside the firm may be appointed if the non-executive number of directors is insufficient.

The existing literature comprises extensive investigations into the relationship between CG mechanisms and firm performance. Indeed, the BOD is the main mechanism of CG, and previous studies have examined this in depth. Some researchers concluded a significant positive relationship between the independence of boards and firm performance, such as Mashayekhi and Bazaz (2008) and Almarayeh (2021). These results indicate that independent directors can effectively monitor managers, improving their performance.

On the other hand, Marashdeh (2014), Horváth and Spirollari (2012), Bansal and Sharma (2016), and Fauzi and Locke (2012) showed a negative effect of board independence on firm performance. Thus, a more independent director on the board may reduce the board's effectiveness in achieving the organization's goals, negatively affecting firm performance. Further, board independence composition may not influence firm performance, as evidenced by Getachew (2014), Shahzad et al. (2015), and Johl et al. (2015). Thus, in some cases, independent directors do not enhance firm performance.

In terms of board size and its effect on firm performance, the likelihood of independent directors having corporate or financial competence may be higher on larger boards. As a result, previous research has indicated a strong positive association between board size and firm performance (Bansal & Sharma, 2016; Danoshana & Ravivathani, 2019; Johl et al., 2015; Kalsie & Shrivastav, 2016; Shahzad et al., 2015).

On the other hand, smaller boards are easier to administer, and mid-sized boards foster better responsibility (Lane et al., 2006). In this re-

spect, Mashayekhi and Bazaz (2008) discovered a marked inverse link between board size and firm performance. However, other studies have found no meaningful connection between board size and firm performance (Al-Shammari & Al-Saidi, 2014; Almarayeh, 2021; Getachew, 2014; Horváth & Spirollari, 2012; Marashdeh, 2014).

Regarding the board meeting, higher board meeting frequency helps the board to interact and supervise the organization's activities, enhancing firm performance. Boards that meet more frequently produce better financial results and significantly increase firm performance (Ntim & Osei, 2011). On the other hand, the usefulness of increased board meeting frequency in improving business performance depends on the expertise, experience, and enthusiasm of directors. Increased board meeting frequency has a significant negative effect on firm performance (Danoshana & Ravivathani, 2019; Johl et al., 2015), while Aryani et al. (2017) and Horváth and Spirollari (2012) noted a lack of relationship between board meeting frequency and firm performance.

Concerning the board's gender diversity, it aids in resolving conflicts of interest between management and shareholders (Fama & Jensen, 1983). Female directors are more independent, improve the board's monitoring role more than male directors (Bøhren & Staubo, 2016), and participate more in board meetings (Adams & Ferreira, 2009). Besides, they express diverse views during board meetings and communication held (Mathisen et al., 2013). Accordingly, Adams and Ferreira (2009), Campbell and Mínguez-Vera (2008), El-Khatib and Joy (2021), Getachew (2014), Liu et al. (2014), and Taghizadeh and Saremi (2013) concluded that a higher proportion of female directors is strongly associated with higher firm performance.

On the other hand, women on the board are significantly associated with lower firm performance (Al-Shammari & Al-Saidi, 2014; Fauzi & Locke, 2012; Wellalage & Locke, 2013). Further, Almarayeh (2021), Horváth and Spirollari (2012), Khadash and Washali (2019), Wang and Clift (2009), and Yusoff et al. (2013) rejected a relationship between board gender diversity, the presence of female directors, and firm performance. Thus, women's lack of representation in board positions

has diminished their influence and effectiveness (Abdullah et al., 2016; Yusoff et al., 2013).

The literature review on the effect of the board of directors on firm performance showed uncertain results. Some are in line with agency and resource dependence theories, and others are against them. This inconsistency may indicate that firms may ineffectively implement the mechanisms of the board of directors or may need further enhance them. As a result, most countries still revise their corporate governance code to enhance its effectiveness. Hence, more investigation with updated data is required.

Therefore, this study extends the literature by providing the results with current data for 2019 and 2020 of Bahraini listed firms. It examines the impact of the characteristics of the board of directors (BOD), namely board independence, board size, frequency of board meetings, and board gender diversity, on firm performance. According to the theories of agency and resource dependence and the literature review, this study suggests the following hypotheses:

- H_1 : *There is a positive relationship between board independence and firm performance.*
- H_2 : *There is a positive relationship between board size and firm performance.*
- H_3 : *There is a positive relationship between board meeting frequency and firm performance.*
- H_4 : *There is a positive relationship between board gender diversity and firm performance.*

2. METHODOLOGY

This quantitative study sampled all 42 firms listed on the Bahrain Bourse for 2019 and 2020 (84 firm observations). However, because of missing data for some variables, the final sample for this study was 39 listed firms for the two years, resulting in 78 firm observations. Table 1 shows the type of industry for the sampled firms. Data were collected from the published annual reports of listed firms. Further, CG variables were collected from the CG reports published on each company's website.

Table 1. Descriptive statistics for the type of industry

Industry	Frequency	Percentage
Communications services	6	7.69
Consumer discretionary	10	12.82
Consumer staples	6	7.69
Financials	44	56.41
Industrials	6	7.69
Materials	2	2.56
Real estate	4	5.13
Total	78	100

In terms of the regression models, the study used ordinary least squares (OLS) regression analysis, available in the STATA software program, to examine the influence of BOD characteristics (independence, size, meeting frequency, and gender diversity) on firm performance. It uses three measurements: ROA, ROE, and EPS. This paper included several control variables selected based on earlier studies. These variables were associated with audit committee (AC) mechanisms (for example, AC size and meeting frequency), other CG mechanisms (for example, audit firm), and firm-specific features (for example, firm size, age, and leverage). Table 2 displays more information on these variables.

Table 2. Summary of the operationalization of the variables

Acronym	Variables	Measurement
ROA	Return on Assets	Net Income / Total Assets
ROE	Return on Equity	Net Income / Total Shareholder's Equity
EPS	Earnings Per Share	Net income / Total shares
BIND	Board Independence	Independent directors on the board
BSIZE	Board Size	Board members
BMEET	Board Meetings	Board meeting per year
BGEN	Board Gender Diversity	Female Directors / Board Size
ACSIZE	Audit Committee Size	AC members
ACMEET	Audit Committee Meetings	AC meetings per year
Big4	Big Audit Firm	1 if audited by Big4, 0 otherwise
FSIZES	Firm Size	Natural log of total assets
LEV	Leverage	Total debt to total assets
FAGE	Firm Age	Years since the firm's foundation

Thus, the following regressions were utilized to discover the effect of BOD characteristics on firm performance: (i) ROA; (ii) ROE; and (iii) EPS.

Model 1

$$ROA = \beta_1 BIND + \beta_2 BSIZE + \beta_3 BMEET + \beta_4 BGEN + \beta_5 ACSIZE + \beta_6 ACMEET + \beta_7 Big4 + \beta_8 FSIZE + \beta_9 LEV + \beta_{10} AAGE + \varepsilon_i \tag{1}$$

Model 2

$$ROE = \beta_1 BIND + \beta_2 BSIZE + \beta_3 BMEET + \beta_4 BGEN + \beta_5 ACSIZE + \beta_6 ACMEET + \beta_7 Big4 + \beta_8 FSIZE + \beta_9 LEV + \beta_{10} AAGE + \varepsilon_i \tag{2}$$

Model 3

$$EPS = \beta_1 BIND + \beta_2 BSIZE + \beta_3 BMEET + \beta_4 BGEN + \beta_5 ACSIZE + \beta_6 ACMEET + \beta_7 Big4 + \beta_8 FSIZE + \beta_9 LEV + \beta_{10} AAGE + \varepsilon_i \tag{3}$$

3. RESULTS AND DISCUSSION

Tables 3 and 4 show the descriptive statistics for all variables, the mean, standard deviation, minimum, and maximum. The mean value of ROA was 1.09, with a minimum of -28.4 and a maximum of 22.1. The mean value of ROE was 2.09, with a minimum of -92.99 and a maximum of 50.3. The mean value of EPS was 14.31, with a minimum of -179 and a maximum of 155.

Table 3. Descriptive statistics for dependent variables

Variable	Mean	SD	Min	Max
ROA	1.093974	7.046811	-28.4	22.1
ROE	2.094359	16.77121	-92.99	50.3
EPS	14.31244	42.23567	-179	155
BIND	4.282051	1.906227	0	10
BSIZE	8.974359	1.578873	5	12
BMEET	6.012821	2.282022	3	15
BGEN	0.115661	0.024998	0.083333	0.2
ACSIZE	3.884615	1.019049	2	7
ACMEET	4.705128	1.612524	2	13
FSIZE	14.59104	2.946949	8.069186	18.97642
LEV	4.941923	8.148334	1.02	62.1
FAGE	36.21795	13.94949	2	63

Table 4. Descriptive statistics for dummy control variables

Variable	Yes		No	
	No.	%	No.	%
Big4	66	84.62	12	15.38

Concerning board independence, Table 3 shows that the average number of independent directors was 4.28 (mean value), and the lowest number was 0 (minimum value), which is against the recommendation of the Bahrain code of CG. On the other hand, the highest number was ten directors (maximum value). The mean value of board size was 8.97, i.e., the average listed firm in Bahrain had 8.97 directors on the board. The minimum value was five, meaning that every board included at least five directors. The maximum value was 12 directors. The mean value was six meetings concerning annual board meeting frequency. The lowest annual board meetings of listed firms were three, and the highest were 15.

For board gender diversity, the mean value was 12%, which means that the proportion of women on the board was 12%. The minimum value was 0, meaning that some of the listed firms did not have female directors on the board. The maximum value was three, so some listed firms had three women on the board. Further data analysis shows that 20 firm observations (25.64%) had at least one female director, while 58 (74.36%) had no female directors on the board.

Regarding the control variables, Table 3 demonstrates that the mean value of AC size was 3.88 directors, which means that the listed firms appointed approximately four directors to their ACs. The smallest value for AC size was two directors, and the largest was seven. Concerning AC meeting frequency, the mean value was 4.70, meaning that ACs of listed firms met 4.70 times a year. The lowest value for annual AC meetings was two, and the highest was 13. Lastly, Table 4 shows that 84.62% of listed firms (66 firm observations) appointed big four audit firms to review and examine their financial statements; only 15.38% (12 firm observations) appointed non-big audit firms.

Before executing the regression analysis, the paper examined the goodness of fit of the sample data with the statistical assumptions (Hair et al., 2013). The study checked outliers, normality, multicollinearity,

and heteroscedasticity. According to Hair et al. (2010), outliers arise when one observation has a significantly different value. There are various approaches for dealing with the outlier problem. In keeping with previous investigations, the current study employed the winsorization strategy to reduce the impact of outliers (Al-Absy, Almaamari, et al., 2020; Al-Absy et al., 2019; Al-Absy, Ismail, et al., 2020). This study weighted the most extreme observations of variables with outliers, such as ROE, ROA, EPS, ACMEET, leverage (LEV), and firm age (FAGE), by converting the value of the observations from their original value to the normal value. However, the study tried to preserve the original data as much as possible by winsorizing the data with a minimum of 1% for the top and bottom (Yoon et al., 2006).

Further, one of the underlying assumptions that must be evaluated is normality (Hair et al., 2013; Tabachnick & Fidell, 2007). Normality is the degree to which the sample data distribution matches the normal distribution (Hair et al., 2013). In general, applying data transformations to extreme values of variables that suffer from outliers may be the primary way of correcting variable non-normality and drawing univariate outliers of that variable closer to the center of the distribution (Hair et al., 2013). The skewness and kurtosis descriptive numerical techniques evaluated the normality of each variable (Hair et al., 2013). Table 5 demonstrates that the dataset of individual variables had no serious violation of the normality assumption, with the skewness not surpassing the ± 3 threshold and kurtosis not surpassing the ± 10 threshold (Kline, 2015).

Table 5. Descriptive statistics of skewness and kurtosis

Variable	Skewness	Kurtosis
ROA	-0.9002	3.9229
ROE	-1.4010	4.1308
EPS	0.5735	3.2327
BSIZE	-0.6949	2.7728
BIND	0.5312	3.6729
BMEET	1.8320	6.5097
BGEN	1.4968	4.9131
ACSIZE	0.8251	3.3356
ACMEET	1.2613	3.9077
FSIZE	-0.3554	2.1306
Big4	-1.9188	4.6818
LEV	0.9223	2.5297
FAGE	-0.2171	2.1329

The study also considers the issue of multicollinearity. The correlation between independent variables is a crucial issue in understanding regression findings. A strong correlation between the independent and control variables can substantially impact a regression model's predictive power (Hair et al., 2013). The correlation matrix test for independent and control variables is the most straightforward and suitable technique to detect collinearity and multicollinearity concerns (Hair et al., 2013). If there is a strong correlation between variables, estimated to be ± 0.80 or above, there is a significant collinearity problem (Hair et al., 2013).

Accordingly, Table 6 shows several statistically significant relationships between variables. However, the significant correlations between the variables did not exceed the threshold of ± 0.80 , so there is no indication of serious multicollinearity issues.

The study also tests the issue of homoscedasticity, where the hypothesis is that the dependent variable exhibits identical degrees of variation throughout the range of independent factors. When this variance does not match the values of

the independent variables, the relationship between the variables is heteroscedastic (Hair et al., 2013). Thus, the Breusch–Pagan/Cook–Weisberg test, a common test for heteroscedasticity, was employed to determine the presence of heteroscedasticity in the current study's models, ROA, ROE, and EPS (Baum et al., 2003). The results showed that the p-value of the ROA and EPS models was higher than 0.05. As a result, the data of these models do not suffer from a heteroscedasticity problem. However, regarding the ROE model, the p-value of the model was lower than 0.05, and thus, the data of this model suffer from a heteroscedasticity problem. Hence, for the ROE model, regression was run by adding the option of "robust" to solve the heteroscedasticity problem.

Table 7 shows the results of OLS regression for the three models (ROA, ROE, and EPS). All models fit and are significant at the 1% level. Regarding the R squared (R²), the percentages for the ROA, ROE, and EPS models were 62%, 61%, and 45%, respectively. This means that the study included most variables affecting firm performance.

Table 6. Correlations matrix of study variables

Variable	ROA	ROE	EPS	BSIZE	BIND	BMEET	BGEN	ACSIZE	ACMEET	FSIZE	Big4	LEV	FAGE
ROA	1.000												
ROE	0.847	1.000											
EPS	0.809	0.741	1.000										
BSIZE	0.076	0.181	0.010	1.000									
BIND	0.044	0.058	0.064	0.309	1.000								
BMEET	-0.010	0.026	-0.029	0.209	0.256	1.000							
BGEN	-0.090	-0.173	0.003	-0.975	-0.314	-0.186	1.000						
ACSIZE	0.042	0.099	0.041	0.337	0.191	0.185	-0.377	1.000					
ACMEET	0.065	0.095	0.048	0.097	0.125	0.453	-0.124	0.096	1.000				
FSIZE	-0.223	-0.301	-0.229	-0.194	0.112	-0.078	0.141	-0.026	-0.151	1.000			
Big4	0.464	0.520	0.319	0.220	-0.068	0.128	-0.261	0.162	0.212	-0.362	1.000		
LEV	-0.234	-0.141	-0.176	0.296	0.124	0.201	-0.290	0.244	-0.012	-0.248	0.236	1.000	
FAGE	0.014	0.108	0.176	0.217	-0.026	0.097	-0.215	0.083	0.116	0.009	0.015	-0.134	1.000
	0.904	0.345	0.123	0.057	0.823	0.398	0.059	0.469	0.311	0.939	0.895	0.241	

Table 7 illustrates an insignificant negative relationship between board independence and firm performance, measured by ROA and ROE, and an insignificant positive relationship with EPS. Hence, board independence does not affect firm performance. The results indicate that independent directors may not fully engage in the firm operations or have insufficient experience to monitor and supervise the managers. This result does not support the hypothesis and is not in line with the theories of agency and resource dependence, which suggest that board independence increases performance. Further, the result rejects the results of Almarayeh (2021) and Mashayekhi and Bazaz (2008).

However, this result is in line with Getachew (2014), Johl et al. (2015), and Shahzad et al. (2015), who discovered no relationship between board independence and firm performance. This study may reflect that independent board members do not participate well in board meetings, as documented by Bansal and Sharma (2016), Fauzi and Locke (2012), Horváth and Spirollari (2012), and Marashdeh (2014), who found that independent directors are associated with low firm performance.

The findings indicate an insignificant positive relationship between board size and firm performance, measured by ROA, ROE, and EPS. Hence, the re-

sult does not support the hypothesis and does not align with the theories of agency and resource dependence, which suggest that higher numbers of directors on the board could significantly enhance firm performance (Bansal & Sharma, 2016; Danoshana & Ravivathani, 2019; Johl et al., 2015; Kalsie & Shrivastav, 2016; Shahzad et al., 2015). Thus, higher numbers of directors do not necessarily increase firm performance, which is consistent with Al-Shammari and Al-Saidi (2014), Almarayeh (2021), Getachew (2014), Horváth and Spirollari (2012), and Marashdeh (2014). This means that a higher number of board directors may not be easily managed and would reduce their accountability.

Table 7 indicates an insignificant positive relationship between board meeting frequency and firm performance measured by ROA, and an insignificant negative relationship with ROE and EPS. Consequently, the findings do not support the hypothesis and contradict the theories of agency and resource dependence, which suggest that increasing the frequency of meetings might significantly improve firm performance (Ntim & Osei, 2011). Therefore, increased board meeting frequency does not necessarily improve firm performance (Aryani et al., 2017; Horváth & Spirollari, 2012). It seems that directors may not efficiently participate in board meetings. Further, they may need more

Table 7. OLS regression for the three models

Variable	ROA			ROE			EPS		
	Coef.	t	P>t	Coef.	t	P>t	Coef.	t	P>t
BIND	-0.1193	-0.4900	0.6280	-0.1343	-0.2600	0.7970	1.8070	0.8600	0.3920
BSIZE	0.5235	0.4700	0.6410	4.4685	1.4600	0.1480	9.7518	1.0200	0.3100
BMEET	0.0393	0.2100	0.8360	-0.2854	-0.4700	0.6370	-0.1354	-0.0800	0.9330
BGEN	27.0059	0.3800	0.7080	237.3452	1.1300	0.2640	715.8630	1.1700	0.2480
ACSIZE	0.6045	1.5700	0.1220	2.0621	2.2000	0.0320**	4.0593	1.2300	0.2230
ACMEET	-0.5420	-1.6700	0.1000	-0.7783	-0.9200	0.3630	-3.3227	-1.2000	0.2350
Big4	5.8632	4.8000	0.0000***	14.1546	4.5400	0.0000***	29.1710	2.8000	0.0070***
FSIZE	-0.2282	-1.5800	0.1200	-0.4634	-1.3800	0.1740	-1.7538	-1.4200	0.1610
LEV	-0.5339	-3.4000	0.0010***	-1.5592	-3.3500	0.0010***	-2.3579	-1.7600	0.0840*
FAGE	-0.0100	-0.3500	0.7290	0.0599	0.8400	0.4030	0.3496	1.4200	0.1610
_cons	-2.4716	-0.1300	0.8990	-64.5143	-1.1800	0.2410	-153.3184	-0.9200	0.3590
Industry Dummy	Included			Included			Included		
Year Dummy	Included			Included			Included		
F Value	5.830			12.960			2.890		
Sig	0.000			0.000			0.001		
R ²	0.623			0.607			0.450		
Observe.	78			78			78		
Firms	39			39			39		

time to prepare for the meeting. Therefore, in some circumstances, a higher frequency of meetings may not produce the desired results and may result in lower firm performance (Danoshana & Ravivathani, 2019; Johl et al., 2015).

The results show an insignificant positive relationship between board gender diversity and firm performance, measured by ROA, ROE, and EPS. A higher percentage of female directors does not significantly improve firm performance. Hence, the result does not support the hypothesis and contradicts the theories of agency and resource reliance, which suggest that increasing the proportion of female directors would significantly improve firm performance (Adams & Ferreira, 2009; Campbell & Mínguez-Vera, 2008; El-Khatib & Joy,

2021; Getachew, 2014; Liu et al., 2014; Taghizadeh & Saremi, 2013). The study confirmed the insignificant impact of gender diversity on firm performance (Almarayeh, 2021; Horváth & Spirollari, 2012; Khadash & Washali, 2019; Wang & Clift, 2009; Yusoff et al., 2013). Thus, female directors may have insufficient power to participate effectively on the board due to the low proportion of women.

Hypotheses testing results are provided in Table 8.

Table 8. Hypotheses testing results

Hypothesis	Suggested	Results	Conclusion
H1	Positive	Negative insignificant	Not supported
H2	Positive	Positive insignificant	Not supported
H3	Positive	Negative insignificant	Not supported
H4	Positive	Positive insignificant	Not supported

CONCLUSION

The study aimed to investigate the impact of the BOD characteristics, namely board size, board independence, frequency of board meetings, and board gender diversity, on the performance of listed firms on the Bahrain Bourse. The findings demonstrate an insignificant relationship between BOD characteristics and firm performance, which is against the agency and resource dependence theories that suggested BOD characteristics could significantly enhance the firm performance. However, the results suggest that firms may not execute BOD procedures successfully. Moreover, other variables may limit boards' ability to improve firm performance.

Therefore, the board of directors may not efficiently monitor and supervise the managers or may need further rules and policies to be implemented in Bahrain to enhance their role and responsibility. Hence, policymakers must re-evaluate the independency of board directors, the policies for conducting the board meeting, and the efficient size of board directors, which can enhance firm performance. In addition, policies should increase the representation of females on the boards and strengthen their corporate governance role.

The results indicate that there is a need for more investigation into the role of BOD in increasing firm performance. Furthermore, it expects that some other factors, such as nomination committee characteristics or remuneration committee characteristics, could strengthen the effectiveness of BOD in increasing the firm performance. Moreover, future research may study the relationship over a more extended period. Besides, research on all GCC countries would provide more accurate results because it would mean a larger sample, and Gulf countries share many similarities in business activities.

AUTHOR CONTRIBUTIONS

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