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The Impact of Board of Directors' Characteristics on Firm Performance: A Case Study in Jordan

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Abstract

This study tested the effect of the board of directors' (BOD) characteristics on the corporate performance of the Jordanian industrial and service companies listed on the Amman Stock Exchange (ASE) during the period 2015–2019. The characteristics of the BOD were measured through the following variables: MO = managerial ownership; CEODU = CEO duality; BI = board independence; GD = gender diversity; ND = nationality diversity; AE = advanced education; BM = board meetings; BSIZ = board size; CSIZ = corporate size; CA = corporate age. The corporate performance was measured by return on assets (ROA) and return on equity (ROE). The corporate size and corporate age were used as control variables. The study sample consisted of 85 industrial and service companies with 425 observations to identify the nature of the effect of the BOD characteristics on performance. This study applied time-series data (panel data), and the multiple linear regression method was used to achieve study objectives. Results showed a positive effect of the study variables on performance, while the corporate age and the education level (BOD members) have a negative effect on performance.

Keywords: Board of Directors' Characteristics, Corporate Performance, CEO Duality, Board Ownership, Board Independence

JEL Classification Code: M41, G32, G35, G51

1. Introduction

The boards of directors (BODs) in companies are the cornerstone and the vital factor in corporate success, as it is the responsibility of the board to appoint the executive director and the general manager and to determine the functional responsibilities of the company. The board has a strategic function in providing the vision, mission, and goals of the organization. These are often determined in combination with the CEO or general manager of the business. The BOD is responsible for setting work policies, strategies, programs, and goals; defining tasks and powers for each corporate department and mechanisms for evaluation of performance; and forming relationships with stakeholders. Therefore, the efficiency of the BOD depends on a set of characteristics that affect the performance of companies. Hence, the importance of this study is to reveal these characteristics to help the techniques of forming companies' boards in a way that ensures the highest levels of performance and removes any factors that have no added value on the board's work.

Many researchers have focused their attention on the BOD characteristics of companies, led by popular economist Adam Smith. Since then, researchers have diversified their attitudes to address the important characteristics of the BOD with study and analysis and how they affect financial performance. The current situation of the COVID-19 pandemic and business environment crises has increased the interest of researchers and regulatory bodies to improve companies' financial performance and quantify the efficiency of the BOD. Therefore, corporate governance guides recognize the importance of these efforts. A company's BOD characteristics is a significant component of these guides and an important component in this equation, as well as the main component of corporate governance programs (Brown & Caylor, 2006; Gardazi et al., 2020).

This study aims to discover the extent to which the BOD characteristics influence companies' success and whether the independence of the BOD has advantages that may raise some negative or positive effects on the company's performance.

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The results of this study are expected to be of the utmost importance when forming corporate BODs by proposing a way that ensures the highest levels of performance and ensures the company's success. These characteristics are important in the framework of the supervisory and directive roles of the board.

Agency theory is a principle that is used to explain and resolve issues in the relationship between business principals and their agents. Most commonly, that relationship is the one between shareholders, as principals, and company executives, as agents. The shareholders, true owners of the corporation, as principals, elect the executives to act and take decisions on their behalf. The aim is to represent the views of the owners and conduct operations in their interest. Despite this clear rationale of electing the board of directors, there are a lot of instances when complicated issues come up and the executives, knowingly or unknowingly, take decisions that do not reflect shareholders' best interest.

To control the performance of companies' management and achieve transparency, the legislation related to the work of companies in most countries of the world has paid attention to the necessity of forming BODs that have qualitative characteristics that play an effective supervisory role. The board characteristics are considered one of the most prominent and fundamental factors in the effectiveness of the BOD's supervisory and directive roles to achieve the company's purposes. Much contemporary research has focused on studying the importance of board characteristics and their role in strengthening the independence of the BOD and the necessity and the extent of appointing independent members from the executive management. One of the goals is to reduce management interference in the financial reporting process to enhance the transparency, disclosure, and suitability of financial reports to the needs of users. This is of great importance to this study to determine the most important positive characteristics of BODs that play an important role in the success of companies and the achievement of their goals.

2. Theoretical Framework and Literature Survey

Boards of directors are described as organizational structures that formulate broad policies for the facility, set the necessary strategies, make decisions related to the company's assets, evaluate the company's performance, and appoint the company's CEO, in addition to carrying out control tasks and discovering risks. Thus, the composition of the BOD is linked to corporate performance. Issues such as board independence, the board size, diversity among board members, and the number of meetings are possible factors for the company's success.

2.1. The Board Diversity Concept

There are two concepts to express diversity among board members: tangible diversity, that can be observed, such as age, gender, ethnicity, cultural background, qualifications, and education level, and intangible diversity that can be felt, such as life experience, personal behavior, and viewpoints. There is no accurate or specific definition for the concept of diversity.

2.2. Agency Theory and Board Characteristics

According to the concept of agency theory, the diversity of the BOD increases the independence of the board, which reduces the problems of difference, whether in gender, race, or cultural background, thus increasing the role of the board in bridging the gaps that help manipulation on the part of managers. The agency problem is a conflict of interest inherent in any relationship where one party is expected to act in another's best interests. For a company, the agency problem usually refers to a conflict of interest between a company's management and the company's stockholders. Because the agency theory is based on the fact that the managers are not the owners but rather the agents of the shareholders, the BOD seeks to solve the agency problem that may arise between managers and owners.

An independent director is a director of a board of directors who does not have a material or pecuniary relationship with the company or related persons, except sitting fees. The appointment process of independent directors is independent of the company management and the appointment of independent director(s) of the company is done by and approved at the meeting of the shareholders (Fuzi et al., 2016). The board of directors is a collective body that should act in the best interest of shareholders. The board requires the combination of executive and non-executive directors to pursue the shareholders' interest. The non-executive directors on the board will not be able to exercise their duties effectively unless they are independent of management and ensure they provide unbiased business judgment. Independent directors are the person entrusted by shareholders to represent them and will help to reduce agency problems. Further, the Code of Corporate Governance and regulators recommend the composition of board members should be balanced and consist of independent directors. However, mere compliance with the recommendations is not enough if the independent directors fail to exercise their functions effectively.

2.3. Literature Review

Rashid (2018) examined whether board independence influences firms' economic performance among listed firms in Bangladesh by using data from 135 listed firms on the Dhaka Stock Exchange and by using accounting and market performance measures. The results showed that board independence and firm economic performance do not positively influence each other. This study also found that board size has a significant positive influence on both board independence and firm performance. These findings raised the question of whether 'one size fits all' type corporate governance practices can be exercised around the world.

Kapil and Mishra (2019) attempted to explore the link between corporate governance system developed by firms like promoter ownership, institutional relationship (as percentage ownership in the firm), foreign institutional investors (FII) ownership, board size (log assets), family control which is a significant indicator for board independence. Further, they had also taken CEO duality and the number of board meetings and linked it with firm performance. Findings indicated that the impact of corporate governance variables on the market-based performance measures (Tobin's Q) is greater than the impact on accounting-based performance measures (ROA and ROE). Among board variables, board size was found to impact performance positively and CEO duality is found to impact performance negatively. Board independence i.e. "monitoring board" was found to impact accounting-based performance positively, whereas the number of board meetings was found to impact market-based performance measures positively.

Fuzi et al. (2015) examined the independence of the BOD and the performance of companies. The study showed a weak correlation between the percentage of independent directors and the company's performance. Yet that does not guarantee the improvement of the company's performance. Ghosh (2017) studied a sample of Indian companies during the period 1996–2012 and suggested that not all governance characteristics are equally effective and some of these characteristics exert a more pronounced effect on bank performance as compared to others. That is the nature of property rights, the mechanism of their formation, and the complexity of ownership greatly affect the performance of companies. Khadash and Washali (2019) studied the effect of the board characteristics of insurance companies and banks on performance and found that the BOD characteristics play an important role in judging the success of companies' performance. The most important result was that there is no relationship between gender and educational diversity in ROA or ROE.

Jhunjhunwala and Mishra (2012) examined whether board diversity improves corporate performance by considering different parameters of diversity such as gender, age, tenure, nationality, educational background, and experience of the directors. No significant link between board heterogeneity and financial performance in Indian firms is found. The possible explanation for this may be that diversity in teams often leads to conflicts, adversely affecting performance unless properly managed.

Sarkar and Sarkar (2018) studied the effect of board governance in state-owned and private banks by undertaking a study of commercial banks in India that has both bank groups. They provided evidence of strong ownership effects with board independence exhibiting a significant positive correlation with the performance of private banks and a significant but negative correlation with the performance of state-owned banks. The effect of CEO duality is negative in state-owned banks where the incidence of CEO duality is high. They found that longer CEO tenure has significant positive effects on bank outcomes with these effects strengthening in the later years of CEO tenure.

Zhuang and Capulong (2001) mentioned that companies that do not apply or narrowly apply the rules of governance are more vulnerable to financial crises. From these previous studies, it is evident the impact of BOD characteristics on the company's performance. In some studies, the role of these characteristics in the success of companies revealed opposite results, indicating that there is no consensus between the impact of BOD characteristics on the performance of companies, which prompted the researcher to ascertain the nature of this effect. It is useful to see how these prior studies measured their variables and what variables were most used to measure BOD characteristics.

Several BOD characteristics have been developed based on prior studies: the board size, the independence of its members, the combination of implementation and control (oversight) functions, the number of board meetings, and the seniority of the members. Therefore, based on the literature review, the following hypothesis was developed: There is a statistically significant effect of the characteristics of the BOD on the company's performance (where the performance was evaluated based on ROA) (economic return) and the ROE (financial return). The following model was developed to achieve the study goal.

2.4. Study Aims

This study aims to determine the role of the BOD characteristics and their impact on the company's performance, how companies become more able to make the best use of the available resources, and how to exploit the financial and human capabilities of companies to increase their performance and thus be reflected in corporate performance. The study also seeks to determine the role of the BOD in the face of corruption and favoritism and whether the characteristics of the board affect the success of the company, especially its financial performance.

This study seeks to achieve three objectives:

- Identify the most important positive and negative BOD characteristics
- Determine the role of board characteristics on corporate performance
- Highlight and demonstrate the board's characteristics to improve performance.

2.5. Significance of the Study

The significance of the study is to understand the association between BOD characteristics and corporate performance. It includes traditional variables (board size, duplication of the chief executive, the number of board members, and the number of board meetings) and new variables, including nationality diversity, gender diversity, advanced education represented by a higher certificate (master's or Ph.D.), and board independence. This study was also applied in an emerging environment (the developing country of Jordan).

3. Methodology

To explain the study problem and answer the questions posed, and due to the nature of the topic, a descriptive and analytical approach was used to collect information related to the theoretical aspect of the study and highlight the concepts related to the topic. Laws and legislation were related to the economic and organizational field. It is assumed that the characteristics of a good BOD will lead to more participation and evaluation, accountability, motivation and application of the principle of effectiveness, transparency in performance, and application of the principle of fairness and equality. All of these will positively affect performance. The study sample consisted of 85 industrial and service companies with 425 observations to identify the nature of the effect of the BOD characteristics on performance. The multiple linear regression method was used to achieve study objectives and to identify the effect of the BOD characteristics on performance. The data was collected over time and from the same companies, and then a regression was run.

3.1. Study Population and Sample

This study was applied to two sectors of Jordanian companies — the industry and services sectors — with a total of 118 companies. These two sectors were chosen because they are characterized by the ability to attract and employ skilled and expert persons in the BOD. The researcher conducted an advanced survey for all public shareholding companies listed on the Amman Stock Exchange to determine which companies are applicable. It was found that all variables required are available to achieve the study goals related to board characteristics. The companies included in the study (industrial and services) have the available accounting information needed to achieve the study objectives, based on the study variables, and that the shares of these companies were listed for circulation during the study period. The companies did not experience any mergers or acquisitions or bankruptcy during the study period. Finally, the number of companies that inter the study sample until the end of 2019 which achieved study requirement reached 85 corporates with 425 observations.

3.2. Independent Variable (Board Characteristics)

Many variables can affect board performance, including administrative experience, experience in the functional field, experience in the field of industry, educational qualifications, age, gender, and nationality, the size of the BOD, and CEO-Chair duality (CEO duality), the ratio of shares owned by the members of the board, the number of board meetings, the board size, board independence, duties of the Chairman of the board, and independence and experience of the Audit Committee. To study the effect of BOD characteristics on company performance, Al-Matari et al. (2012) used the following variables: CEO duality, COE tenure, Audit Committee size, the board size, and board composition. However, Bathula (2008) used board size, director ownership for shares (stocks), CEO duality, gender diversity, educational qualification of board members, and the number of board meetings, Audit committee size. De Villiers et al. (2011) used more comprehensible variables comprising independence, CEO-chair duality, the concentration of directors appointed after the CEO, directors' shareholding, the board size, directors on multiple boards, CEOs of other corporates on the board, lawyers on the board, and directors' tenure. Shukeri and Shaari (2012) applied different variables such as managerial ownership, the board size, board independence, CEO duality, gender diversity, and ethnic diversity.

The current study will apply the explanatory variables which involve director ownership, CEO-chair duality, board independence, number of women on the board, number of directors with advanced education (master's and Ph.D.), CEOs of other companies on the board, number of board meetings conducted each year, and the board size which is consistent with Bathula (2008). Furthermore, the researcher will add two important variables known as control variables: corporates size and corporate age to make the results unbiased. Therefore, this study is one of the few covering all BOD characteristics that may affect companies' performance.

3.3. Dependent Variable (Performance)

Greenley (1995) defined performance as a reflection of how the organization uses its financial and human resources and uses them in a way that makes it capable of achieving its goals, or the institution's ability to survive and maintain a balance between shareholders and employees' satisfaction. Performance is the result of the interaction of two basic elements: the method of using resources (efficiency) and the results obtained from that use (effectiveness). Performance is a measure of judging the extent to which an institution has achieved its main objectives. Therefore, performance is related to the ability to achieve the goals and expresses a comparison between what is planned and what is achieved (Kanakriyah, 2020).

To assess and measure corporate performance, it is preferable to use financial performance and non-financial performance. This study will depend on financial criteria for measuring performance. Corporate performance is measured using two types of metrics. It is well known that ROA and ROE are the most popular metrics dealing with financial performance, as they have been used frequently by analysts as a reliable way to assess a company's performance. This study applies these two concepts to determine and measure the company's performance. ROE is a ratio that provides investors with insight into how efficiently a company is handling the money that shareholders have contributed to it. In other words, it measures the profitability of a corporation in relation to stockholders' equity. Return on assets is a profitability ratio that provides how much profit a company can generate from its assets. In other words, ROA measures how efficient a company's management is in generating earnings from its economic resources or assets on its balance sheet (Kurnia et al., 2020).

3.4. Control Variables

To make results more precise, the study uses the corporate size and the corporate age as control variables. The size of the company is measured through the amount of sales revenue per year because large companies have more complex activities, which requires a more skilled board. Corporate age is measured by the number of years from the date of foundation until the end of 2019 (number of years since foundation).

3.5. Study Model

To discover the effect of board characteristics on performance, the following models were developed:

Corporate performance (ROA) = α + β_1 Managerial ownership (MO) + β_2 CEO duality (CEODU) + β_3 Board independence (BI) + β_4 Gender diversity (GD) + β_5 Nationality diversity (ND) + β_5 Advanced education (AE) + β_6 Board meetings (BM) + β_8 Board size (BSIZE) + β_9 Corporate size (CSIZE) + β_{10} Corporate age (CAGE)+ ε).

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Table 1: Study Variables and Methods to Measure Them

Variable	Type	Code	Measures
Return on assets	Dependent	ROA	Proxy to financial performance measure (EBIT/Total Assets)
Return on equity	Dependent	ROE	Proxy to financial performance measure (EBIT/Total Equity)
Advanced education	Independent	AE	The number of members holding a master's degree or a doctorate is divided by the number of council members.
Managerial ownership	Independent	MO	The proportion of the number of shares owned by members of the BOD / the total shares in the company
Board size (Bsize)	Independent	BSIZE	Total number of members of the BOD
Board independence (Bind)	Independent	BI	The number of non-executive directors / total number of directors (proportion)
CEO duality (Dual)	Independent	CEODU	If the CEO is assigned as chairman take 0 and other 1
Gender diversity (Gend)	Independent	GD	Female members of the BOD / the total number of BOD members
Nationality diversity	Independent	ND	The proportion of directors from different nationalities to the total number of directors
Board meeting	Independent	Nmeeting	The number of meetings held during the year
Corporate size	Control var	CSIZE	Total sales
Corporate age (years)	Control var	CAGE	The number of years from the date of establishment until 12/13/2019

Before starting the regression analyses, variables were tested for multicollinearity by computing the VIF values. The results were for all values lower than the threshold value of 10, which indicates suitability for OLS analysis. The study applied a cross-sectional longitudinal sample of 92 companies over five years from 2015 to 2019. Thirty-three companies were excluded for not having all the information necessary for the analysis indicating the net number of companies (118 – 33) = 85. There was a total of 425 observations. Multiple linear regression analysis using the least-squares method was used to analyze the study data extracted from the reference documents of the sample of companies. The study used an aggregate regression analysis to measure the relationship between variables. It also applied the normal distribution test, autocorrelation, and the unit root test (time series instability) to ensure the suitability of the model.

4. Results and Discussion

Table 2 provides more valuable information about the variables' frequency. Corporate size measured through total assets and management ownership measured as the proportion of the number of shares owned by members of the BOD / the total shares in the company did not appear in the table. While the rest of the variables show their frequency (Table 4.1). The following can be observed: Most of the companies involved in the study have double membership (a member of BOD and chairman), and there is a good ratio of female participation in the BOD. Also, there are a number of non-Jordanian nationalities among the membership of the BOD; this diversity will be very useful to the company and shareholders. There is also a percentage of higher degrees (master's and Ph.D.) among members of the BOD, which reflected positively on performance. The table also presents a variation in the number of meetings held during the year (between companies), ranging from 4 to 13. Moreover, the table shows that most companies have a long life of more than 10 years, and the number of board members ranges from 5 to 17.

Table 3 presents the descriptive statistics of the study variables. The board size ranged from 3 to 14, with an average of 7.12. This average is considered low compared to the average number of members in developed countries such as the US with approximately 12 or 13 members. Higgs (2003) specified that boards should be smaller to achieve the necessary balance between the skills and experiences of the BOD. The average number of BOD members in Jordan is close to the average number of managers in European countries, where the average number of BOD members is 7.8. On the other hand, this average is less than the average number in many European countries, including Belgium, France, Germany, Italy, the Netherlands, Portugal, Spain, Sweden, Switzerland, and England, where the number of directors ranges between 9 and 17 (Heidrick & Struggles, 2011). Average board meetings for the current study averaged 8.11, ranging from 5 to 24 times. This average is close to the average number of board meetings of companies for developed countries. Also, the percentage of CEO duality was an average of .46%, which is much closer to American and European companies' duality average (CEO duality).

The average CEO gender is 68% male and 32% female, which means a good representation of females in the BODs. The average director ownership is 71%, which means that the boards are not dominated by family members or close friends, and there many independent directors. The average board independence of members reached 58%, which may positively affect performance. Companies share members from other nationalities was 36%. Moreover, 31% of the BOD members have advanced education, which reflected positively on performance. According to VIF values, which are less than 5, there is no multicollinearity problem between study variables (Arfifa, 2013; Jermakowicz et al., 2007).

Table 2: Frequency of board characteristics

	0	1	2	3	4	5	6	7	8	9	10	11	12	13+	Total
CEODU	16	21	18	14	6	6	2	2	0	0	0	0	0	0	85
BI	0	6	10	12	12	7	14	6	2	3	3	0	0	0	85
GD	34	17	9	6	12	3	1	1	1	0	1	0	0	0	85
ND	16	15	13	9	13	2	4	5	2	1	5	0	0	0	85
AE	3	9	8	15	12	7	7	14	9	0	1	0	0	0	85
BM	0	0	0	0	1	0	52	9	7	4	2	3	2	5	85
BSIZE	0	0	0	0	0	17	5	24	2	19	6	7	2	3	85
FAGE	0	0	0	2	4	5	3	8	0	2	5	11	12	32	85
FSIZE	Total assets (of corporates) from to														
MO%	Number of shares owned by members of the BOD / the total shares in the corporate ratios %														

Where: MO = managerial ownership; CEODU = CEO duality; BI = board independence; GD = gender diversity; ND = nationality diversity; AE = advanced education; BM = board meetings; BSIZ = board size; CSIZ = corporate size; FA = corporate age.

Table 3: Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std. deviation	VIF values
ROA	–34	81.8	0.823	0.023	1.03
ROE	–8	18.4	0.067	1.07	1.29
MO	0	6	0.718	0.348	1.48
CEODU	0	3	0.464	0.239	1.15
BI	1	4	0.589	1.42	1.45
GD	0	3	0.326	0.331	1.17
ND	0	7	1.79	0.367	2.07
AE	0	4	1.69	0.317	1.19
BM	5	24	8.11	0.302	1.13
BSIZE	3	13	7.12	0.201	1.28
CSIZE	25.2	66.2	16.6	1.77	1.46
CAGE	1.12	5.23	3.12	1.02	1.33

Table 4: Correlation Matrix Variables (Pearson correlation)

	ROA	ROE	MO	CEODU	BI	GD	ND	AE	BM	BSIZ	FSIZ	FAGE
ROA	1											
ROE	0.30**	1										
MO	0.18	0.34	1									
CEO duality	0.28*	0.41*	0.55*	1								
BI	0.22	0.62	0.34	0.61	1							
GD	0.27	0.23	0.29	0.42	0.31**	1						
ND	0.14	0.56	0.47**	0.29	0.19	0.24	1					
AE	0.21	0.48	0.57*	0.34	0.12	0.12	0.33*	1				
BM	0.13	0.63	0.50	0.31	0.48	0.28	0.47*	0.46	1			
BSIZ	0.31**	0.22	0.16	0.18	0.16	0.25	0.27	0.58*	0.71*	1		
CSIZ	0.33**	0.54**	0.44**	0.36	0.27	0.18	0.09	0.29*	0.23	0.52**	1	
CAGE	–0.12	–0.41	0.32	0.41	0.28	0.39	0.38	0.29	0.11	0.21	0.25	1

* Number of observations (n) = 207 corporate-year observations during the years 2015–2019.
** Correlation is significant at the 0.01 level.
* Correlation is significant at the 0.05 level.

The correlation matrix presented in Table 4 shows the correlation coefficients between the study variables. The findings show a significantly positive association between study variables (board independence, different nationality of directors, advanced education, CEO duality, management ownership, board meetings, and the number of members of BOD and performance (ROA and ROE)), which indicates that strong board characteristics are associated with high corporate performance. A negative impact was also found between gender diversity and performance (ROA and ROE). Control variables were represented through corporate size, which has a positive correlation with performance, but corporate age has significantly negative correlation coefficients.

Based on these statistical results, we note the existence of statistically significant transactions for the independent variables that measure the characteristics of the BOD based on the ROA. This will certainly reinforce the assumed conclusion that there is an effect of the characteristics of the company's BOD on the performance of the company.

To recognize the effect of the BOD characteristics (the independent variable) on the corporate performance (the dependent variable) and to test the study hypotheses, which discuss how the BOD characteristics affect performance, the multilinear regression method was used. The dependent variable was the performance, measured in terms of ROA and ROE. The independent variables are managerial ownership, CEO duality, board independence, gender diversity, nationality diversity, advanced education, board meetings, the board size, corporate size, and corporate age. The following mechanism, including five-year cross-sectional observations, was used on the study companies (Henderson et al., 2010).

5. Conclusions and Recommendations

According to the empirical results obtained from the regression model, which is synthesized in Table 5, 69% variation in the dependent variable can be explained by the explanatory variables. Moreover, this model is significant with an F-statistic value of 22.62 and $p = 0.000$, meaning that the model is statistically valid to detect the impact of BOD characteristics on corporate performance.

The statistical outcomes in Table 5.1 indicate a significant relationship between the number of BOD members and performance (positive impact), which enable more skills and experience between board members, which suggests that small boards may have a negative effect on performance which is consistent with Ntim and Oser (2011) and Shahrier et al. (2020), but disagreeing with Bataineh et al. (2019). This result highlights the problems of agency theory. Regarding the nationality diversity variable, the results showed a significant relationship between BOD diversity (nationality diversity of the board members) and performance. This is consistent with the diversity concept, which states that a variety of capabilities and cultures reflect positively on corporate performance. Moreover, the independence of board members positively affects performance, and this leads to enriching the board with new skills and knowledge that may not be available in the company and is necessary to perform its duties, as well as to ensure the expression of objective and independent views and opinions. A positive impact of management ownership on performance was also revealed. This explains the presence of a high percentage of ownership leads to improving the performance by reducing agency costs resulted from personal bias. Lack of board independence affected the company's performance. There is a positive relationship between CEO duality, combining the positions of the chairman and CEO, and corporate performance. This result can be explained by the fact that the combination of the two positions in one individual maximizes the sense of responsibility towards the company and leads to more interest and eagerness to raise the company's performance to the highest level.

This result differed from previous results of Naseem et al. (2020), Pucheta-Martínez and Gallego-Álvarez (2019), and Shahrier et al. (2020). It could be interpreted that small boards will benefit from CEO duality through decision-making freedom because he/she will prefer his/her personal interest when making any strategic financial decisions, consistent with results from Kaur and Singh (2019) and Saidu (2019), while bigger boards have a negative effect, meaning one person occupies two positions, indicating that the results are vague and unclear, depending on corporate size and board size.

Table 5: Multiple Regression Results for 2015–2019

Variables		**MO**	**CEO DU**	**BI**	**GD**	**ND**	**AE**	**BM**	**BSIZ**	**CSIZ**	**CA**	***R***	***R*²**	***F*–test**
2015	*p*-value	0.301**	0.05	0.00	0.131***	0.081	0.04	0.072	0.165	0.388*	0.00	0.743***	0.552	13.33
	Cof	0.22	0.441	0.612	–0.056	0.126	0.00	0.184*	0.56	–0.256	–0.04	0.801	0.641	
2016	*p*-value	0.251	0.00	0.00	0.214	0.076	0.00	0.038**	0.273	0.522	0.00	0.684	0.457	16.27
	Coff	2.16	0.183	0.454	–0.056	0.029*	0.02*	0.184	0.562	–0.141*	0.13	0.758	0.574	
2017	*p*-value	0.301***	0.00	0.00	0.104***	0.043	0.00	0.081***	0.441	0.421***	0.00	0.74	0.547	18.25
	Coff	2.17	0.334**	0.812	–0.056	0.033	0.01	0.184	0.636	–1.08	0.11	0.811**	0.657	
2018	*p*-value	0.294	0.00	0.05	0.122***	0.042	0.00	0.156	0.092	0.287	0.00	0.745	0.255	21.22
	Coff	1.77	0.067	0.453***	–0.056	0.056	0.00	0.184	0.567*	–0.011*	–0.03	0.816	0.465	
2019	*p*-value	0.114	0.00	0.06	0.106	0.116	0.08	0.044***	0.212	0.049	0.00	0.771	0.594	15.08
	Coff	1.03**	0.225	0.118	–0.056	0.071**	0.10	0.184**	0.342	–0.113	–0.03	0.728***	0.529	
All years	*p*-value	0.001	0.00	0.00	0.121*	0.052	0.05	0.079	0.116	0.087	0.00	0.588*	0.620	22.62
	Coff	3.22	0.334	0.721	–0.014	0.044	0.00	0.184	0.032	–0.119	–0.08	0.833	0.693	

P value = 0.000 $p < 0.001$

MO = managerial ownership; CEODU = CEO duality; BI = board independence; GD = gender diversity; ND = nationality diversity; AE = advanced education; BM = board meetings; BSIZ = board size; CSIZ = corporate size; CA = corporate age (** Significant at 0.01 – * Significant at 0.05).

An important finding is that the number of board meetings positively affects the company's performance (Kaur & Singh 2019; Wondem & Batra, 2019), showing that an increase in the number of meetings leads to an increase in supervision and scrutiny, reflecting positively on the corporate performance. The number of board members also affects the nature of this relationship, which displays how BODs lead to effective performance. The results of the study showed that there must be a complete separation between the duties of the general manager and the duties of the chairman of the BOD to enable each of them the opportunity to carry out their assigned tasks, and each of them exercises a supervisory role over the other.

The results show a negative influence between members' education and performance, despite the existence of members who hold higher qualifications (master's and Ph.D.). This is due to the policy of appointing family members or people known to the family members to the BOD in most Jordanian companies controlled by family members. Members who hold a high academic degree in a specific specialty is chosen for membership on the board by virtue of their relationship with the family but is not qualified to perform the corporate work because they lack the skills and experience required by the business. This result is opposite to Pucheta-Martínez and Gallego-Álvarez (2019) and Sanan (2019) but consistent with Kaur and Singh (2019), Bataineh et al. (2019), and Naseem et al. (2020). There is a positive impact of nationality and educational diversity on performance which was measured by ROA and ROE, and this leads to improvement in performance (Naseem et al., 2020). The diversity of foreign members has a positive effect on performance, which could be attributed to the fact that different knowledge always generates new ideas, a multiplicity of viewpoints, and new solutions for the problems faced by the companies, which will positively affect performance. The study also showed that there is no effect of gender diversity on performance (Al-ahdal et al., 2020).

Limitations: The financial reports published by the companies may not actually represent the reality, and they may be manipulated (profit manipulation). Besides, the variables used in this study to measure performance may be insufficient because the study is applied to an environment of developing countries.

According to the author's knowledge, this is one of the first studies to explore the mediating role of corporate size and corporate age in the relationship between BOD characteristics and corporate performance measured through ASE data. Besides, it employed all BOD characteristics that may have an effect on corporate performance, so it is a comprehensive study.

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