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The Effect of Corporate Governance and Firm Characteristics on Firm Value: Evidence from Jordan

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Abstract

This study aims to provide evidence for the impact of corporate governance and firm characteristics on the value of industrial firms. The sample includes 40 industrial public shareholding companies listed on the Amman Stock Exchange during the period from 2009 to 2018, with a total of 4,670 observations included in the analysis. Corporate governance was measured through board size, female directors, board independence, audit committee meetings, and CEO duality. Firm characteristics were measured by firm size, firm age, year of establishment, and listing year. Tobin's Q was used as an indicator of firm value. The major findings indicate a negative impact of board independence on firm value. However, the number of audit committee meetings, board size, number of female directors on the board, CEO duality, establishment age, and listing age did not significantly affect the company's value. Conversely, a positive impact of the company's leverage on firm value was found, while there was no effect of the current ratio and tangibility on firm value. In light of these findings, the study recommends that Jordanian firms focus on improving their corporate governance practices by increasing awareness among all related parties about the importance of applying corporate governance rules. This is considered a step towards enhancing their firm value.

Keywords: Corporate Governance, Firm Characteristics, Firm Value, Industrial Firms.

1. Introduction

Increasing the level of investor's value in the company is one of the most important goals that any company seeks, for the reason that the value of the company depends on the wealth of investors in addition to the level of their contribution for the company. The value of the company indicates the strength of the company and the extent of its ability to maintain and attract old and new investors. Also, it is one among the other things that affect the value of a company as being greatly dependent on a corporate governance (Gill and Mathur, 2011).

Among other effects on the value of the company and determination of its level, the characteristics of the company increase the level of experience that the company has at its field work. Several studies have shown that certain firm characteristics have a direct impact on the performance of the firm. According to (Swanson, 2009), the characteristics of the firms were

empirically related to the success of a company's operations. Despite that, a company's value may increase or decrease in a better way when it's compared to any other company. Furthermore, (Zou and Stan, 1998) set firm characteristics as the demographic and managerial variables that can shape part of the firm's internal environment. A good firm value is able to encourage, attract and maintain other parties that have interests to join the company.

Based on this discussion, this research investigates the impact of corporate governance, firm characteristics on the firm value in Jordanian industrial companies listed on the Amman Stock Exchange (ASE). The corporate governance is investigated through board size, female directors, board independence, audit committee meeting and CEO duality. The firm characteristics is measured by firm age (establishing and listing) and firm size. The other variables that might have an effect on firm value is current ratio, leverage and fixed assets ratio.

1.1 and Literature Review

This section describes the theoretical framework and the interrelated prior studies of corporate governance and firm value as follows:

1.1.1 Theoretical Framework

– Agency theory:

Agency theory clearly and significantly focuses on the level of conflict that occurs between the interests of investors and the interests of managers in companies. For the importance of the agency theory in corporate governance, it is demonstrated by the lack of a clear approach to monitor and follow-up by investors regarding matters that relate to the company in terms of their interests (Bubbico et al., 2012). The Stewardship theory offers the opposite view. Stewardship theory posits that managers are not opportunists and do not abide by their duties for personal ends. Thus, the members of the board of directors can focus on strategic planning and control roles in the interest of the company in general and without individual goals (Lonkani, 2018).

– Firm value:

Firm value is considered the indicator for firm's success (Ifada et al., 2019). Therefore, financial decisions of the firm's managers are expected to create the company's wealth as demonstrated by the company's increasing value (Thakhur and Woalkman, 2016). The primary objective of the company's administration is the enhancement of investor's capital by raising the stock price of the company. The stock price of the company is achieved by the enhancement of the asset value or firm value, through firm's focus on the board of directors, strategies, business conditions and corporate morality (Miles and Covin, 2000).

Firm Value and Firm Characteristics:

Firm characteristics are firm attributes or features that differentiate one firm from another (Kabiru et al., 2019); firm characteristics include firm size, leverage, sales growth, asset growth and turnover. While others include ownership structure, board characteristics, age of the firm, dividend pay-out, profitability, access to capital markets and growth opportunities (Okerekeoti & Egbunike 2018).

Firm Value and Corporate Governance:

The origin of the term governance is the Greek word “kyberman” meaning govern control, direct, and guide for the actions of something or someone (Abdullah and Valentine, 2009). The world has faced extraordinary disappointments of a well-known firms in the previous decade and significant scandals were brought up along with serious losses. This has shaken the world's economy, investors and shareholders confidence, which led to putting more attention to apply corporate governance practices in all firms, especially firms with public shares.

Corporate governance is characterized as a set of procedures, customs, approaches, laws, and organizations influencing the manner in which the firm is controlled and coordinated. The impact of corporate governance contrasts nation to nation. Therefore, different structures of corporate governance come due to disparate social, monetary, and administrative circumstances (Rouf, 2011).

Jordanian Corporate Governance Overview:

The Jordanian government announces the Code of Corporate Governance in 2009 sponsored by Amman Stock Exchange (ASE). Thus, Jordanian firms needed to pay more attention for the necessities of the Administration Code since 2009, (Alkhatib et al., 2011). In 2004, the World Bank and the International Monetary Fund surveyed the corporate governance circumstances in Jordan. They have concluded that Jordanian firms needed to improve appropriate adherence to the corporate governance rules and guidelines. The companies are following exceptional introductory phase of code for corporate governance in Jordan. (Abdullatif and Al-Khadash, 2010); (Ajeela and Hamdan, 2011). It is worth noting that the Corporate Governance Guide has been completed with the aim of developing a clear framework that regulates the relationships and management in them. In addition, defines the rights, duties and responsibilities in order to achieve the company’s goals and objectives and preserve the rights of the parties with related interests. In fact, these rules are based on a number of legislations, the most important of which are: the Securities Law, the Companies Law, and to the principles Developed by the Organization of Economic Corporation and Development (OECD). In 2010, the Securities and Exchange Commission made a detailed presentation of the rules of governance in order to determine the guiding rules and mandatory rules. In addition, stipulated that companies must adhere to the mandatory rules and under penalty of responsibility. While the guiding rules are applied through the method of compliance or interpretation of non-compliance (Jordan Securities Commission 2010). In addition to that, the Securities Authority has issued a circular to listed joint stock companies, which includes issuing corporate governance instructions for listed joint stock companies for the year 2017. Which must be applied from May-2017. Thus, canceling the corporate governance guide for joint stock companies listed on the Amman Stock Exchange issued by the Jordan Securities Commission in 2009.

1.1.2 Literature Review

In fact, several studies have been investigated the effect of corporate governance, firm characteristics on the firm value. Memon et al., (2019) discussed the effect of corporate governance on the firm leverage. The study also investigated the moderating task of firm age on the relation between leverage and corporate governance. The study used a sample from the listed firms in China.

The findings showed that CEO duality and the board of directors as corporate governance dimensions have a significant effect on leverage. Board size and independence of board affect leverage positively, and the firm age affects leverage negatively. Moreover, Qadorah & Fadzil, (2018) examined the correlation between both board of director's independence and board's meeting frequency and firm's performance in Jordan. The sample consisted of 64 industrial listed firms on the Amman Stock Exchange (ASE) for fiscal year 2013. Multiple regression analysis was used. Results showed a positive impact of the board of directors' independency on the firm's performance. Also, it was found that board's meeting frequency has no effect on the performance. In addition, they showed that corporate governance is essential to all organizations and it must be encouraged for the interest of the stakeholders. Meanwhile, Ararat et al., (2017) investigated the effect of corporate governance practices on the firm value. The study collected data from the listed Turkish public corporations during (2006-2012).

For the measurement, they designed Turkey Corporate Governance Index, which contained the elements of board structure, board procedures, disclosures, ownership structure, and shareholder rights. The designed index proved its ability to predict higher market value using the fixed effects and higher profitability using the random effects. The findings showed that the corporate governance shares a positive relationship with firm value that was measured by Tobin Q. Also, Ilaboya & Ohiokha (2016) studies the relationship between firm age, profitability and size with the learning background. The population consisted of 202 firms listed on the Nigerian Stock Exchange at the end of 2014. Meanwhile, the sample included 30 firms. The data analysis was based on historical gathered data covering the period (2006-2012).

Panel data regression is used for the analysis purposes. The findings showed a positive and significant relationship between the firm's size, age, and profitability. Furthermore, Alabdullah et al., (2014) examined the impact of corporate governance mechanisms on the financial performance. The sample of the study contained 109 companies, industrial and service companies, for the fiscal year 2011. The study found that the board size has negative relationship with the financial performance. The findings also showed that the independent directors and the duality of the CEO have no effect on the financial performance. In this manner, as Zedan & Abu Nasser (2014) studied the relationship between the mechanism of corporate governance and the firm performance that are measured by return on assets, total assets turnover ratio, inventory turnover ratio and return on equity. The population included all Jordanian manufacturing companies listed on the Amman Stock Exchange for five years (2005-2009). The study found that company's performance measured by return on assets, return on equity, total assets turnover, and inventory turnover ratio are affected significantly and positively by the mechanism of the corporate governance. While, Siahaan (2013) examined the impact of the firm size, leverage, the audit committee, size of the commissioner's board, and proportion of independent commissioners on the firm value. The sample used included 28 firms for a period of 5 years (2007-2011).

The results showed that size of board of directors have an impact on firm value. Meanwhile, audit committee and the proportion of independent commissioner's did not affect firm value. Besides, Pasaribu (2017) empirically investigated the relationship between the firm performance and female directors. The study sample included all of the non-financial listed firms at the UK from (2004-2012). The study found that

female directors have a positive relationship with the firm performance. On the other hand, Luqman et al., (2017) tested the effect of firm size on the performance of a firm in Nigeria. The panel data set of 12 non-financial firms operating in Nigeria for the period (2005-2013).

The results of the study showed that firm size in terms of total assets has a negative influence on performance. While in terms of total sales, firm size has a positive impact on the performance of Nigerian non-financial companies. In addition, a positive relationship with leverage and working capital was found. Similarly, Mohammed (2017) examined the effect of firms' characteristics on firm value of the listed companies in Nigeria. The sample consisted of (10) firms. The study found that firm's size positively and significantly affects the firm value of the listed healthcare firms in Nigeria. The study also showed that liquidity has a negative impact on the firm value. Finally, Ghadoorifard et al., (2014) studied the relationship between firm size, financial performance, and firm age. The sample included 96 firms listed on the Tehran Stock Exchange over the years (2008-2011).

To test the study hypothesis, descriptive statistics and linier regression analysis were used. The findings showed that there is a remarkable relationship between firm size, age and financial performance.

As result, the previous literatures stated that corporate governance mechanism found that there is a positive impact and relationship of the dimensions of corporate governance and the characteristics of the company on the value of the company, while the current study

differed as a result of the presence of a negative impact of the independence of members - as a dimension of governance - on the value of the company, while the results showed that the other dimensions of corporate governance included in the study and the characteristics of the company do not materially affect the value of industrial companies in Jordan.

2. Research problem statement

This research paper is aim to find out the impact of applying the rules and standards of corporate governance and firm characteristics on firm value in industrial Jordanian listed companies. Further, it improves the financial stability of listed companies and support the confidence of investors in stock markets. Moreover, the constructed research model evaluates the corporate governance practices by comparing the code of corporate governance issued by OECD in 1999 with current practices in Jordan. Thus, this research explores the reality of compliance with corporate governance practices in Jordan.

3. Research Significance and Objectives

3.1 Research Significance

This research has the theoretical and applied significances. The theoretical implications are introduced to enrich the existing literature which shed lights on corporate governance and firm characteristics. Specifically, this research introduces empirical research about the factors that may increase the firm value across the industrial listed firms. Thus, proving the impact of corporate governance, firm age along with size on firm's value will support the implementation of corporate governance across Jordanian firms.

For the applied significance, this work will help the management of industrial firms to justify the investments, and the high costs spent on governance by clarifying the reflections on firm market value. It is worth mentioning, that the importance of the industrial sector in Jordan stems from its main role and effective contribution to the wheel of economic growth and its great role in employment and employment. As the Jordanian industrial sector directly contributes about a quarter of the national economy (25% of GDP) as a result of its close association with various other sectors and causing an increase in their activity. Thus, it employs 21% of the total Jordanian workforce (Jordan Chamber of Industry).

3.2 Research Objectives

The main objectives of this study are:

To investigate the impact of corporate governance (board size, Female directors, board independence, audit committee and CEO duality) on firm value.

To investigate the impact of firm characteristics (establishment age, listing age, firm size, current ratio, leverage ratio, and fixed assets ratio) on firm value.

4. Research Hypothesis Development

– Corporate Governance

Corporate governance is considered as an activity or process that helps in achieving the interests of investors and shareholders in the company (Hirschey, 2010). Corporate governance applies many rules that clarify the rights of shareholders along with the responsibilities of managers and the board of directors (Steiner et al., 2010). In addition, corporate governance helps reducing agency problems that occur between investors and shareholders in the company (Yang and Shan, 2008).

H1: There is no significant effect of corporate governance on the firm value of the industrial companies listed on the Amman Stock Exchange

The corporate governance will be measured by the following variables:

- **Board Size:** increasing the size of the board of directors (BOD) will probably upgrade to BOD's viability in offering sufficient help in decreasing agency cost that outcome from wasteful management of the firm. In the long run, this will improve the financial results (Jensen and Meckling, 1976).

H1.1: There is no significant effect of the board size on the firm value of the industrial companies listed on the Amman Stock Exchange.

- **Female Directors:** many companies have worked to introduce many events in order to develop and improve the work of the company. Also, to reduce manipulation and neglect occurring in the Board of Directors. (Smith et al., 2006; Nekhili and Gatfaoui, 2013; Chapple and Humphrey, 2014) argued that female directors' attributes (experience, skills, and demographic characteristics) contribute to enhance the effectiveness of board oversight, decision-making, and consultative processes. Gender orientation assorted variety on the boards of directors has been of significant to corporate governance.

H1.2: There is no significant effect for the female directors on the firm value of the industrial companies listed on the Amman Stock Exchange.

- **Board Independence:** The independence of the board of directors is one of the most important characteristics that have to do with the board of directors of the company. In the event that the board of directors enjoys high independence, the decisions that they make will be sound and successful, whether for the interest of management or for the benefit of shareholders (Elloumi and Gueyie, 2001).

Thus, when the independent members inside the company are independent from the management, the company's financial results may grant real benefits and add value to the firm.

H1.3: There is no significant effect for board independence on the firm value of the industrial companies listed on the Amman Stock Exchange.

- **Audit Committee Meeting:** the prior literature establishes the notion that independent and expert audit committees enhance the effectiveness of firm performance (Fama and Jensen, 1983; Klein, 2005). Additionally, audit committee meeting has a significant impact on the assessment of the overall performance of the firms and its internal control mechanisms. Where there is no specific standard to the number of meetings held by audit committee.

H1.4: There is no significant effect for audit committee meetings on the firm value of the industrial companies listed on the Amman Stock Exchange.

- **CEO Duality:** A Chief Executive Officer (CEO) is primarily responsible for developing and executing goals, plans and policies for the organization whether in the short or long terms. On the other hand, the board of directors is responsible for implementing the operations of the company in such a way that the shareholders will have a continuous profit for the long term (Dogan, 2013). According to (Jensen, 1993), the idea of the separation between the CEO and the chairman leads to better performance due to better monitoring and overseeing.

H1.5: There is no significant effect for CEO duality on the firm value of the industrial companies listed on the Amman Stock Exchange

- **Firm Characteristics:** Several studies indicate that firm characteristics can affect the firm's capital structure, growth and value (Lang & Lundholm, 1993).

H2: There is no significant effect of firm characteristics on the firm value of the industrial companies listed on the Amman Stock Exchange

The firm characteristics are measured through:

- **Firm Size:** The size of the company has many consequences for its financial results. Large companies can take advantage of both economies scale and scope, thus be more efficient compared to small companies. Moreover, small firms may have less power than large firms. Therefore, they may find it difficult to compete with the big firms, especially in highly competitive markets (Majumdar, 1997).

H2.1: There is no significant effect of the establishment Age on the firm value of the industrial companies listed on the Amman Stock Exchange.

- **Firm Age:** The growth in age has an effect on performance, along with the experience bend. Besides, the firm makes profits by the economies of scale and experienced execution among its life (Majumdar 1997).

H2.2: There is no significant effect of the Listing Age on the firm value of the industrial companies listed on the Amman Stock Exchange.

H2.3: There is no significant effect for the firm size on the firm value of the industrial companies listed on the Amman Stock Exchange.

5. Research Method

5.1 Study population

The population of the study included all industrial companies listed on the Amman Stock Exchange (ASE), covering the period 2009-2018.

5.2 Study Sample

data were collected from industrial listed firms at Amman stock exchange from the period of 2009 to 2018. Secondary data were used from audited annual reports of the listed firms. Applying these criteria resulted in a final sample that constitutes the final total number of (40) companies.

Econometric model

this paper uses multiple regression analysis to test research hypotheses. Thus, the first estimated model is formulated includes the control variables, while they are excluded in the second model as follows;

$$FV_{it} = \beta_0 + \beta_1 * B \text{ Size}_{it} + \beta_2 * BD\text{-}Woman_{it} + \beta_3 * B \text{ Indp}_{it} + \beta_4 * BD\text{-}Audit_{it} + \beta_5 * DCEO_{it} + \beta_6 * F\text{-}Size_{it} + \beta_7 * Age\text{-}estab_{it} + \beta_8 * Age\text{-}list_{it} + \beta_9 * CR_{it} + \beta_{10} * LV_{it} + \beta_{11} * FAR_{it} + \epsilon_{it} \quad (1).$$

$$FV_{it} = \beta_0 + \beta_1 * B \text{ Size}_{it} + \beta_2 * BD\text{-}Woman_{it} + \beta_3 * B \text{ Indp}_{it} + \beta_4 * BD\text{-}Audit_{it} + \beta_5 * DCEO_{it} + \beta_6 * F\text{-}Size_{it} + \beta_7 * Age\text{-}estab_{it} + \beta_8 * Age\text{-}list_{it} + \epsilon_{it} \quad (2).$$

Whereas:

- Fv: Firm Value.
- β_0 : Intercept.
- β_1 - β_{11} : Regression coefficient.
- B Size: board size.
- BD-Woman: female in boards.
- B Indp: board independence.
- BD-AUDIT: audit committee Meetings
- DCEO: CEO duality.
- F-Size: Firm size.

- Age-estab: Age establishment
- Age-list: Age listing
- CR: current ratio.
- LV: Leverage.
- FAR: fixed assets ratio.
- e: error.

Variables Measurements:

In the light of the conceptual framework, the variables have been measured as the following:

Dependent Variable: Firm Value

The Firm Value is measured in the present study by Tobin Q:

Tobin's Q = (Equity Market Value + Liabilities Book Value) / Book Value of Total Assets).

Independent Variables:

The following variables are used in the study as independent variables:

Corporate Governance:

The corporate governance will be measured by the following variables:

- **Board Size:** In the present study, board size is measured by the number of directors serving on board divided by 13.
- **Female Directors:** Female directors' variable is considered in the study as the ratio of females' directors on the board.
- **Board Independence:** The board independence is measured in the study as the number of independent members divided by 13.
- **Audit Committee Meeting:** Audit committee meeting: is measured by the number of meetings held by the committee during the year; assign 1 if the number of meetings is more than 3 otherwise it is 0.
- **CEO Duality:** CEO Duality is assigned 1 if the CEO is the chairman otherwise it is 0

Firm Characteristics:

The firm characteristics are measured through:

- **Firm Size:** Firm size is measured by natural log of the total assets.

Firm Age: Firm age is measured by:

Establishment Year: Firm age since establishment up to 2018.

- **Listing Year:** Firm age since the listing date up to 2018.

Control Variables:

Building on previous relevant studies, three control variables are added to the regression:

- **Current Ratio (CR):** It's measured as follows
Current assets / Current liabilities
- **Leverage (LV):** It's measured as follows:
Total debt / Total assets.
- **The Fixed Assets Ratio (FAR):** It's measured as follows:
Net fixed assets / Total assets.

5. Data analysis and Results

This section presents analysis of data and findings of the study by using descriptive analysis, Pearson's correlation and multiple regression analysis.

❖ Descriptive Analysis:

Table (1) presents the descriptive results of the variables of corporate governance, firm's characteristics and firm value. The results in the table revealed that the minimal number of the board of directors is 4 members and the maximum number is 13 members. According to the Jordanian corporate governance code, it is regulated as the board size shall not be less than three and not more than thirteen members. Thus, the sampled firms are aligned with the code. The mean value is 7.9 (i.e. approximately eight members), which could be within the accepted range. Last, the standard deviation value is 2.19 as a low value compared to the mean and it designates the excellent harmonization across the firms in terms of board size.

Table (1): Descriptive Analysis for all Sampled Manufacturing Firms for the Years (2009-2018)

	N	Minimum	Maximum	Mean	Std. Deviation
Independent Variables					
(1) Corporate Governance					
Board Size	383	4	13	7.9687	02.19806
Female Directors	383	00	00.33	00.0189	00.05624
Board Independence	383	00	00.92	00.3407	00.17737
Audit Committee	383	00	1	00.9113	00.28548
CEO Duality	383	00	1	00.1097	00.31287
(2) Firm Characteristics					
	N	Minimum	Maximum	Mean	Std. Deviation
Establishment Age	396	3	70.00	29.8283	16.03353
Listing Age	379	2	35.00	10.3509	05.86360
Firm Size	396	14.71	20.92	17.1195	01.20866
Control Variables					
Current Ratio	396	0.37	16.63	2.6227	2.16264
Leverage	396	0.02	00.91	0.3422	0.19220
Fixed Assets Ratio	396	00	00.78	0.3346	0.16926
Dependent Variable					
Firm Value	396	0.13	3.60	1.0053	0.46257

The mean value of the female directors (measured depending on the number of female directors divided by the number of the board members) is 0.0189; the minimum value is 0 and the maximum value is one-third (0.33) of the board with a relatively low standard deviation of

0.05624. The results reveal that the Jordanian companies do not tend to represent women on their boards.

The results of the independence of the board of directors, which were measured by the number of independent directors on the size of the board of directors, show that approximately one-third of the members are independent, as indicated by the average value of 0.3407. This ratio is mainly aligned with the Jordanian corporate governance code. The variation and difference in this term is moderate as seen in the standard deviation value of 0.17737. Though, there are some firms with no independent members as seen from the minimum value of 0.

The mean value of audit committee meetings was 0.9113; It is very close to 1, which means that most audit committees meet at least three times per year with little difference as shown by the standard deviation of 0.28548. However, some committees meet less than three times a year as the minimum value for this variable is zero.

CEO Duality is a dummy variable that assumes the value of 1 if the firm's CEO and Chairman of the Board is the same person, or otherwise 0. The mean value is noticeably low with 0.1097, which indicates lower impact of the CEO/Chairman on the board. The results showed that there are many companies, but not all companies including in the study sample, have awareness in terms of the separation between the CEO and being a member of the Board of Directors.

The other independent variable related to the firm characteristics is the establishment age, measured by the difference between 2018 and establishment years. The mean of firm's establishment age is 29.8 years, where the oldest firm is aged 70 years in comparison with three years for the newest firm. The standard deviation in ages is 16.03 years. For the listing age, the mean value is 10.3 years, which is almost a maturity period, and the maximum age shows 35 years, with a minimum value of 2 years, and low standard deviation (5.86 years). The firm size is measured by the log of total assets indicating that the mean is 17.1195, the minimum value is 14.71, and the maximum value is 20.92.

For the firm value as the dependent variable measured by the Tobin's Q ratio, the mean value is 1.0053, the minimum value is 0.13, and the maximum value is 3.60. Variation amount is relatively low (0.46257) in comparison with the mean value

❖ Correlation Analysis:

Table (2) shows the results of Pearson Correlations Matrix among the independent variables, dependent variables, and the control variables. The results of the correlation showed significant relationship between firm value and only three independent variables: the board independence, establishment age and firm size. As for control variables the firm value is influenced with only fixed assets ratio (FAR). Board independence as corporate governance dimensions has a negative and significant correlation with the firm value at significant levels of 1%. The result implied that the higher the board of director's independence is, the lower the firm value will be.

For the other independent variables, the result showed a positive and significant relationship between the firm size and the firm value ($r = 0.292$; $\text{sig} = 0.000$) which implies that the higher the size of firm is, the higher the firm value will be. In addition, a positive and significant relationship is showed between the establishment age and the firm value ($r = 0.168$; $\text{sig} = 0.001$) which implies that the higher the age of firm is, the higher the firm value will be. The last control

variable fixed asset ratio was found negatively correlated with the firm value at significant level of 1 % which means the higher the ratio of fixed asset the lower of the firm value.

Table (2): The Correlation Matrix

	B_size	BD_Female	B_indep	BD_Audit	D_CEO	Age-estab	Age-List	F_Size	F_Value)	CR	LV	FAR (FA)
Pearson Correlation	1											
B_Size Sig.												
Pearson Correlation	0.128'	1										
BD_Woman Sig.	0.012											
Pearson Correlation	-0.086-	-0.085-	1									
B_indep Sig.	0.096	0.101										
Pearson Correlation	0.106	0.110	-0.124-	1								
BD_Audit Sig.	0.244	0.225	0.170									
Pearson Correlation	-0.048-	0.394"	0.132"	0.057	1							
D_CEO Sig.	0.346	0.000	0.010	0.530								
Pearson Correlation	0.060	-0.034-	-0.145-"	-0.007-	-0.075-	1						
Age-estab Sig.	0.243	0.501	0.005	0.937	0.142							
Pearson Correlation	0.138"	-0.033-	-0.034-	-0.079-	-0.108-	0.259"	1					
Age-List Sig.	0.008	0.533	0.519	0.386	0.038	0.000						
Pearson Correlation	0.287"	0.044	-0.223-"	0.219'	-0.042-	0.259"	-0.089-	1				
F_Size Sig.	0.000	0.390	0.000	0.014	0.413	0.000	0.083					
Pearson Correlation	-0.052-	-0.019-	-0.143-"	0.056	0.013	0.168"	-0.088-	0.292"	1			
F_Value Sig.	0.307	0.708	0.005	0.539	0.800	0.001	0.086	0.000				
Pearson Correlation	0.209"	0.176"	-0.125-	0.069	0.099	0.101'	0.122'	0.023	-0.017-	1		
CR Sig.	0.000	0.001	0.015	0.448	0.052	0.045	0.017	0.652	0.742			
Pearson Correlation	-0.187-"	-0.236-"	0.027	-0.011-	-0.063-	-0.070-	-0.115-	0.046	0.054	-0.665-"	1	
LV Sig.	0.000	0.000	0.605	0.899	0.220	0.166	0.025	0.357	0.281	0.000		
Pearson Correlation	-0.207-"	-0.041-	0.080	0.003	0.010	-0.146-"	-0.098-	-0.039-	-0.152-"	-0.344-"	0.134"	1
FAR Sig.	0.000	0.425	0.122	0.972	0.845	0.004	0.057	0.442	0.002	0.000	0.008	

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

❖ **Regression Analysis and Hypotheses Testing**

In order to attain the study objectives and test the hypotheses of the impact of corporate governance and firm characteristics on the firm value, the multiple regressions analysis is conducted in two patterns; the first one is by including the control variables to the analysis, the second one is by excluding them.

Model (1):

Table (3) summarizes the results of the multiple regression analysis of the first model. The value of the statistical significance was (0.000), and the value of F was (5.594), which means that the study model is statistically significant. The value of the Adjusted R-Squared was 0.296, indicating that the corporate governance, firm characteristics and control variables explain 29.6% of the total variation of the firm value.

Regarding to the effect of independent variables on firm value, table (2) showed that the board independence negatively and significantly affected the firm value (significance level is 0.025). This result contradicts the argument that board independence is more likely to improve firm value, and this result is inconsistent with a study of (Ali, 2016) who found no significant impact of board independence on firm performance.

For the other independent variables; board size, female directors, audit committee meetings and CEO duality, the results shown in table 4 indicated no significant effect on the firm value. Therefore, it is concluded that any change in the size of the board of directors, audit committee meetings, female directors or CEO duality does not significantly affect the firm value.

Table (3): Model No. 1 – Analyzing the Effect of Corporate Governance, Firm Char. and Control Variables on the Firm Value

F-Model		5.594				
Sig (F)		0.000				
Adjusted R2		0.296				
R2		0.361				
R		0.601				
All variables		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
Constant		-1.267	0.589		-2.151	0.034
Independent (corporate governance)	B-Size	-0.015	0.018	-0.080	-0.848	0.398
	BD-Woman	-0.241	0.616	-0.038	-0.390	0.697
	B Indp	-0.384	0.169	-0.183	-2.277	0.025
	BD-Audit	-0.110	0.122	-0.072	-0.904	0.368
	D CEO	0.083	0.272	0.03	0.306	0.760
Independent (Firm char)	Age-Estab	0.001	0.003	0.034	0.339	0.735
	Age-List	-0.013	0.008	-0.162	-1.734	0.086
	F-Size	0.145	0.037	0.421	3.875	0.00
Controls	CR	0.053	0.027	0.247	1.941	0.055
	LV	0.662	0.281	0.295	2.355	0.02
	FAR	-0.317	0.229	-0.118	-1.380	0.17

The value of the statistical significance of the variable "firm Size" is (0.000), which is less than the standard statistical significance level (5%), and the value of T (3.875), reflects that there is a significant and positive effect of "firm Size" on the firm value. So, if the firm size is increased, an increase in the firm value will be noticed, and vice versa. This result is consistent with the study of (Siahaan, 2013) who found a significant impact of firm size on the firm value, and the results are inconsistent with the study of (Setiadharna & Machali, 2017).

Leverage, as a control variable, has shown a positive significant impact on firm value. The value of the statistical significance of the variable Leverage is (0.02), which is less than the standard statistical significance level (5%). The value of T is (2.355), reflects that there is a significant and positive effect of leverage on the firm value. So, if the leverage is increased, the firm value is also increased. The result is consistent with the study of (Adeyemi & Oboh, 2011), who found that the market value of a firm is positively influenced by its choice of capital structure (Financial Leverage). The result is also consistent with the study of (Mohan and Chandramohan, 2018), who found a positive relationship between debt and performance.

Model (2):

The second model in the study examines the effect of corporate governance and company characteristics on the value of the company by excluding control variables.

The results presented in table (4) showed that the value of the statistical significance was (0.000), and the value of F was (6.161), which means that the study model is statistically significant. The value of Adjusted R-Squared was 0.256, which indicates that the corporate governance and firm characteristics explain 25.6% of the total variation of the firm value.

Regarding the effect of independent variables on firm values, table (4) showed that the board independence is negatively and significantly affect the firm value (significance level is 0.010). This result contradicts the argument that board of director independence is more likely to improve firm value.

For firm characteristics variables, table (4) shows that the value of the statistical significance of the variable "Firm Size" was (0.000), which is less than the standard statistical significance level (5%), and the value of T (4.892), reflects that there is a significant and positive impact of the firm size on the firm value. For the other firm characteristics variables; the results showed insignificant effect of age establishment and age list on the firm value. Therefore, it is concluded that any change in the age establishment and age list does not have a significant effect on the firm value.

Table (4): Model No. 2–Analyzing the Effect of the Independent Variables Corporate Governance and Firm Characteristics on the Dependent Variable (Firm Value)

F-Model		6.161				
Sig (F)		0.000				
Adjusted R2		0.256				
R2		0.306				
R		0.553				
All variables		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
Constant		-1.485	0.559		-2.656	0.009
Independent (corporate governance)	B Size	-0.018	0.017	-0.097	-1.073	0.285
	BD_woman	-0.345	0.619	-0.054	-0.557	0.578
	B indp	-0.445	0.170	-0.212	-2.612	0.010
	BD_Audit	-0.107	0.125	-0.070	-0.856	0.394
Independent (Firm char)	D CEO	0.100	0.277	0.035	0.360	0.719
	Age-Estab	0.001	0.003	0.025	0.259	0.796
	Age-List	-0.008	0.008	-0.099	-1.079	0.283
	F-Size	0.173	0.035	0.501	4.892	0.000

By comparing the results of the first model test with the results of the second model test, it is noted that there are no significant differences in the case of excluding control variables with the case of the presence of those variables.

6. Conclusion

This study has examined the effect of corporate governance and firm characteristic on the firm value. Firm value is considered the study's dependent variable and has been measured by Tobin'sQ (Equity Market Value + Liabilities Book Value) / Book Value of Total Assets). Corporate governance and firm characteristics are considered the study's independent variables. Corporate governance has been measured by Board Size, Female Directors, Board Independence, Audit Committee, CEO Duality, and Firm Characteristics that have been measured by Firm Size, Establishment Age, and Listing Age. To take into consideration the effect of other firm value determinants, the study has used three control variables which are Current Ratio, Leverage, and the Fixed Assets Ratio.

Two models are used to investigate the effect of corporate governance and firm characteristics on the firm value. The first one is by including the control variables to the analysis, and the second one is by excluding them.

The findings of both models were almost consistent, as they have revealed negative impact of the independence of the Board of Directors on the firm value. Hence, the result contradicts the argument that board of director independence is more likely to improve firm value. In other words, both models support the negative relation between board of director independence and the firm value. Which is considered as an indication that the higher the independence of the Board of Directors, the lower the firm value will become. According to (Marashdeh, 2014), the possible explanation for that result might be because some independent board members are typically part-time or even stately functionaries who weaken their ability to track and advise the board due to the lack of the information they provide. In addition, their lack of expertise and experience with everyday operations limits their ability to implement their task effectively. Moreover, they are less willing to discharge their responsibilities. Also, they may have other responsibilities that could impair their dedication to successful monitoring. For example, some independent board members may be executive directors of other organizations with undermining their motivation to conduct their position and duties effectively. Additionally, they may be unfamiliar with all of the company's activities and industry, resulting in their incapacity to grasp the problems and difficulties the company faces. In other words, they may lack the knowledge and skills required for the technical business issues.

For the other independent variables; board size, female directors, audit committee and CEO Duality, the results showed an insignificant correlation with firm value. Therefore, it is concluded that any change in the size of the board of directors, audit committee meetings, female directors or CEO duality does not have a significant effect on the firm value.

Firm size showed significant positive relationship with firm value on the results of model (1) and (2). For the other firm characteristics variables; establishment age, and listing age, the results showed an insignificant correlation with firm value.

For control variables, results showed that there is a lack of effect of Current Ratio, Leverage, and the Fixed Assets Ratio on firm value. However, there is a positive impact of the company's debt ratio on firm value.

According to the above results, the implication of negative impact may be referred to misunderstanding of the value relevance on board independence as indicator of stock market efficiency at semi/strong level.

7. Recommendations

In the light of the study results, the following recommendations have been suggested:

1. Paying attention to the application of the rules of governance related to the rights of shareholders, because of its impact on the return on assets and the return on per share
2. Work on the establishment of a committee to be concerned with governance matters in each company called the Governance Committee, which emanates from the Board of Directors and supervises the progress of governance in the company and the seriousness of its implementation

3. The Jordanian firms have to focus on improving their corporate governance practices through increasing awareness among their related parties at all levels regarding the importance of applying corporate governance rules which will lead to enhance their firm value.

Conflicts of interest statements

All authors declare that they have no conflicts of interest.

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