

THE IMPACT OF BOARD OF DIRECTORS CHARACTERISTICS ON ROE AND ROA; AN ANALYTICAL STUDY IN NON-FINANCIAL COMPANIES

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ABSTRACT

This study aims to identify the impact of Board of Directors characteristics on improving the financial performance of Jordanian non-financial companies listed on ASE for the period (2015-2020), where the study population consists of (94) Jordanian non-financial companies listed on ASE and collected data from the published financial reports. The study concluded that Board of Directors characteristics (BdSiz, BdMeet, Bwomen) positively affect ROA; except BdInd which has negative effects and Fmowners with no effect. In addition, results showed that all independent variables positively affect the return on owners' rights, except BdMeet that has an adverse impact on the return of owners' rights. Study recommended repeating researches about the role of Board of Directors characteristics on improving the financial performance during subsequent periods to clarify the impact level of these characteristics on financial performance.

Keywords: Non-Financial Companies, Characteristics, Financial Performance

INTRODUCTION

The Board of Directors considers the highest responsible authority in the company, and is elected by the General Board of Shareholders every four years like in Jordan, where the Board of Directors wishes to achieve the company's objectives and seeks to maximize profitability and the current value of company. Board of Directors derives its powers and responsibilities from the internal systems of companies and from rules, laws, and regulations related to companies' activities. The Board of Directors is responsible for shareholders' rights, the protection of company's assets, and the guarantee that work proceeds properly, which called the agency theory where Board of Directors entrusted with the company management on behalf of shareholders. Board of Directors also monitor managers' performance and assesses their commitment to business ethics and to not prefer their personal interests over shareholders' interests. There is a need for the existence of external board of directors' members; as stated in the corporate governance documents where the most important things that distinguish them are their independency with all relationships, interests, and so on. Their importance also lies in blocking the internal board members and preventing them from using their positions for personal gain (Bshayreh et al., 2021). The interest in form of tasks, duties, and evaluation of boards has increased in light of global financial crises, especially in 2008 and the collapse of major global companies, such as Enron in 2001 and

WorldCom in 2002. Therefore, the confidence of current and future investors remains questionable and must rebuild their confidence in the company's performance and its financial and competitive position.

Study Problem: The origin of study problem returns to the agency theory that defines the relationship between management and owners, where the most important duties of Board of Directors will be to preserve the company assets and shareholders' equity; therefore shareholders invest their money in companies to achieve a satisfactory ROI, and because shareholders don't absolutely trust the performance of Board of Directors, it was very important for certain characteristics to be available in the Board of Directors to support their performance, and it has greater assurance in achieving better financial performance in terms of profitability in general and Return on Equity (ROE) in particular.

Despite researchers' attempts to study the impact of Board of Directors characteristics on the financial performance of Jordan and neighboring countries, but there are shortages in the verification of controversy that arises in clarifying the relationship between them and there is a gap in literature about the documentation of relationship between Board of Directors characteristics and the financial performance. The need to research this topic is also continuing due to the differences in times, circumstances, and variables that affect the economic arena, especially the Corona pandemic which opens the way to re-study this topic and reduce the gap in accounting and controlling literature (Alqudah, 2019).

LITERATURE REVIEW

Science literature indicate that institutional governance effectiveness increases the management efficiency and also reduces the weakness of board of directors in the company management, and quite the contrary lack of an effective controlling system in the company may lead to an increase in the mismanagement of its operations. The controversy arises after reviewing the previous studies about the impact of Board of Directors characteristics on financial performance, where it appeared the existence of variation in the level of impact and relationship between the study variables where the relationship can be positive or negative due to companies' differences; from each other in culture, governance, effectiveness of regulations and instructions, and FirmSiz. Some studies have shown that large FirmSiz has a positive role on the financial performance of company while other studies have proven the opposite (Shukeri et al., 2012). Therefore, there is a need to strengthen these studies with experimental evidences from the reality of companies that differ from each other in certain areas, and it's possible through it to create variables that open up rooms for researches in its impact on the financial performance. Therefore, researchers are looking for the role of Board of Directors characteristics on enhancing the financial performance of Jordanian non-financial companies, and will present literature in detail as follows:

Number of BdMeet & financial performance: (Anderson, et al., 2007) argues that Board of Directors is the highest authority with responsibilities, they are the decision makers, and the agency commissioners of shareholders in the management of company's assets which consists of managers inside the company and independent managers from outside the company, and their meetings consider a safety valve for shareholders. The control of managers and follow-up on achievement consider the most important motives of BdMeet, where scientists gave evidences that repetition of BdMeet is in the interest of shareholders (Qawqzeh, et al., 2021) in order to reduce the inconsistency of information. Therefore, researchers suggest the following hypothesis:

Ho1: BdMeet repetition is not associated with returns on financial performance (ROE, ROA).

BdSiz and financial performance: despite the fact that some studies have found that if BdSiz of Directors is large, the chance of increasing conflicts of interest will increase, but (Weerathunga, et al., 2020) study has shown that large BdSiz of directors positively affects the financial performance. In the Jordanian environment, the (Abuhamour, et al., 2021) study showed that BdSiz of directors in the Jordanian banks positively affects (ROE, ROA), while the study of (AlQudah, et al., 2019) & (Uadiale, 2010) found that the only variable with large positive impact on financial performance is the BdSiz of directors. As a result of reviewing the previous studies, researchers propose the following hypothesis:

Ho2: There is no statistically significant effect between the BdSiz of Directors and financial performance.

BINDEP Members: (Rashid & Pervin, 2019) study showed a little impact of the presence of BINDEP members and financial performance, where results of the study conducted by (Abuhamour, et al., 2021) showed a statistically significant impact of the BINDEP variable on improving the ROA and ROE, while the study of (AlQudah, et al., 2019) showed no impact of the BINDEP members number on the financial performance of Jordanian companies.

Ho3: There is no statistically significant impact between the number of BINDEP members and the financial performance.

FmOwner: in spite of the agency theory and its problems between the management and shareholders but the difference in components of ownership structure that include FmOwner, may affect the decisions and performance of management. The logic say that families which have good percentages in the company's shares have a certain effect on the Board of Directors decisions, especially if they are members of the board of directors, and this align with the interest of other shareholders and may lead to impose some type of informal control over the company's performance, but if they weren't on the board of directors, the board of directors will be afraid of the possibility of affecting their presence for upcoming period, which may positively affect the financial performance.

There is an inverse relationship between the FmOwner and agency disputes between managers and shareholders, and a direct correlation between management FmOwner and the financial performance (Gugong et al., 2014 & Wang et al., 2017). In addition, results of some studies have shown a negative correlation between FmOwner and the financial performance (Audretsch et al., 2010) and that FmOwner does not affect the performance strategies in companies, as shown by the study of (Savitri, 2018) which creates a research gap that can be discussed in the Jordanian business environment, therefore the following hypothesis can be formulated:

Ho4: There is no statistically significant impact of FmOwner on the financial performance.

Numbers of B-Women: the idea of studying the diversity of Board of Directors; from the one hand and its impact on financial performance on the other hand considers one of the variables that may add a useful contribution to the scientific literature. The study of (Gordini et al., 2017) showed that companies with a percentage of females in the board of directors have a positive relationship between them and the financial performance in America while the study of (Musa et al., 2020) mentioned that it's possible that moral aspect of the presence of B-Women has a role to play in working more professionally and this justifies the positive relationship.

The result of (Xie et al., 2020) study, which conducted for many countries showed an inverse relationship between the presence of B-Women and the financial performance of

company, as well as the study of (Lim et al., 2019) which found the same negative relationship in Malaysia.

Ho5: There is no statistically significant impact of B-Women presence on the financial performance.

APPLIED STUDY

In this part, researchers will define the study society, data and information sources, study variables measurements, linear regression formula for study variables, and results of statistical analysis.

Study Population

The study society consists of (94) Jordanian non-financial companies listed on the ASE for the study period (2015-2020)

Data Collection

Researchers collected study data by viewing the financial reports published on the ASE website, where researchers calculated the ROA and ROE for each company from the income list, while the data related to Board of Directors characteristics were obtained from explanations attached in the financial reports for the period (2015-2020).

Study Variables Measurement

Dependent Variable

Financial Performance Measurement (FP): previous studies used different scales to measure the FP but in this study researchers adopted two scales for the FP; ROE, which measured by net profit on overall ROE and adopted by (Lim et al., 2020 & Abuhamour et al., 2021) as well as ROA, which measured by net profit after tax on overall assets and used by (Abuhamour et al., 2021; Musa et al., 2019 & Nwokwu et al., 2019).

Independent Variables

- Women in the Board of Directors (B-Women) (Gender Diversity): measured by the female composition ratio of Board of Directors (Campbell et al., 2008).
- Board of Directors independence (BINDEP): measured by the ratio of non-executive board members from the overall board of directors' members. (Salehi et al., 2018).
- Number of board members (BNUMBR): measured by the real number of board of directors' members (Weerathunga et al., 2020).
- Number of board of directors' meetings (BMEET): measured by the real number of BdMeet.
- Family Ownership (FmOwner): measured by the family members' ownership ratio from the company's overall ordinary shares (Qawqazeh et al., 2021).

Researchers will formulate two relationships, the first represents the impact of board of directors' characteristics on ROE and the second represents the impact of board of directors' characteristics on ROA using the equation of multiple linear regressions.

FP (ROE), (ROA) = $\beta_0 + B_1 BGD + B_2 BINDEP + B_3 BNUMBR + B_4 BMEET + B_5 FOWNER + e$

Results of Descriptive Analysis for Study Variables

Table (1) shows the descriptive statistics of research variables and indicates that arithmetic means for the dependent variables amounted to (2.14) for the ROA variable and (4.65) for the ROE variable and these means are close to the Jordanian environment, while the means for independent variables amounted to (7.84) for BdSiz, (0.583) for BdInd, (8.77) for BdMeet, (0.025) for B-women, and (0.098) for FmOwner.

	ROA	ROE	BdSiz	BdInd	BdMeet	B-Women	FmOwner
Max	50.518	8.922	14	0.888	22	0.40	0.90
Min	-96.12	-25.33	4	0	3	0.00	0
Mean	2.140	4.650	7.845745	0.583	8.778	0.025	0.098
Obs	564						
<i>ROA: return on assets; ROE: return on equity BdSiz: Board size; BdInd: Board independence; BdMeet: BdMeet; LOSS: Loss; B-WOMEN: women in the board of directors; FmOwner: family ownership.</i>							

Correlation Matrix

Table (2) shows the correlation matrix that explains the correlations between all variables and also paired correlation between the two variables together, where the correlation considers a statistical phenomenon that indicates the existence of Multicollinearity between the study variables which weakens the logical impact of independent variable on the dependent variables. It noticed from the table below nonexistence of Collinearity between the study variables and that results of statistical analysis were between (-0.80 and +0.80) (Qawqzeh et al., 2021).

	ROA	ROE	BdSiz	BdInd	BdMeet	B-Women	FmOwner
ROA	1						
ROE	0.355	1					
	0.004						
BdSiz	-0.153	0.267	1				
	0.008	0.008					
BdInd	-0.059	0.434	0.263	1			
	0.047	0.013	0.002				
BdMeet	-0.39	0.345	0.527	0.133	1		
	0.01	0.004	0.012	0.006			
B-Women	0.424	0.41	-0.14	0.018	-0.309	1	
	0.003	0.01	0.031	0.64	0.013		
FirmSiz	-0.061	0.323	0.245	0.338	0.487	-0.376	1
	0.074	0.002	0.009	0.003	0.037	0.017	

Results of Statistical Analysis

To test the impact of board of directors' characteristics on the financial performance in non-financial companies listed on the ASE; researchers adopted the multiple regression equation and the E-Views statistical program.

Multicollinearity

Researchers used the Multicollinearity test to confirm the validity of studying the impact of independent variables on dependent variables, where the existence of Collinearity means repeating the same effect of independent variable on the dependent variables and that absence of Collinearity means right result of independent variable effect on the dependent variable. The statistical analysis results showed in table (3) below indicate the nonexistence of Multicollinearity between study variables, due to the fact that Vif Coefficient is greater than (2).

Variable	Centered VIF
BdSiz	1.18
BdInd	1.27
BdMeet	1.25
B-Women	1.79
FmOwner	1.23

Heteroskedasticity & Serial Correlation

This test measures the serial correlation process in the study variables, which leads to weakness of study results, and showed that correlation value for this test is (0.182) and that serial correlation amounted to (0.212), which indicates this test is appropriate and there is no serial correlation problem in it, and also there is no Heteroskedasticity problem in the flexibility of variables, as shown in table (4) below:

	Serial Correlation	Heteroskedasticity
Tests Values	0.212	0.182

RESULTS & RECOMMENDATIONS

Table (5) shows the multi-regression analysis results for the impact of study independent variables, which represent the area of board characteristics (BdSiz, BdInd, BdMeet, B-Women, FmOwner) on the dependent variable (ROA). The results of statistical analysis indicate that R-squared amounts to (0.665) and this impact is statistically significant due to the p-value of (0.000), and this result indicates that independent variables in this study explain (0.665%) from the variation in the dependent variable ROA, therefore will accept the correct hypothesis that stated: "There is a statistically significant impact between the Board of Directors' characteristics and the improvement of ROA in the non-financial Jordanian companies listed on the ASE.

Variable	Coefficient	Std. Error	T-Statistic	Prob.
BdSiz	0.0067	0.000	5.43	0.000
BdInd	-0.088	0.03	-3.45	0.007
BdMeet	0.234	0.017	8.765	0.000
B-Women	0.094	0.004	13.647	0.003
FmOwner	-5.93E-07	4.93E-06	-0.120	0.213
C	-0.058	0.008	-7.25	0.006
R-Squared	0.665	Adjusted R-Squared		0.544
F-Statistic	6.837	Durbin-Watson Stat.		2.047
Prob (F-Statistic)	0.000			

It shows from the analysis of table (5) that all independent variables affect the dependent variable ROA, except for FmOwner where the p-value amounted to (0.214), which indicates the insignificant of FmOwner variable in the Board of Directors on the ROA, and this result agrees with several studies, the most important of those is (Savitri, 2018). In regard to the rest of independent variables, it showed that (BdSiz, BdMeet & B-Women) variables have a positive impact on ROA while the BdInd variable has a reverse or negative impact on ROA. The results of this study agree with results of several previous studies, the most important of those are (AlQudah et al., 2019; Rashid & Pervin, 2019).

Table (6) shows the multi-regression analysis results for the impact of study independent variables, which represent the area of board characteristics (BdSiz, BdInd, BdMeet, B-Women, FmOwner) on the dependent variable (ROE). The results of statistical analysis indicate that R-squared amounts to (0.543) and this impact is statistically significant due to the p-value of (0.001), and this result indicates that independent variables in this study explain (0.543%) from the variation in the dependent variable ROE, therefore will accept the correct hypothesis that stated: "There is a statistically significant impact between the Board of Directors' characteristics and the improvement of ROE in the non-financial Jordanian companies listed on the ASE.

Variable	Coefficient	Std. Error	T-Statistic	Prob.
BdSiz	0.002	0.020	4.67	0.000
BdInd	0.443	0.03	6.425	0.012
BdMeet	-0.149	0.017	-5.465	0.000
B-Women	0.078	0.013	16.6427	0.000
FmOwner	0.93E-07	0.83E-06	6.120	0.000
C	-0.056	0.000	-5.35	0.000
R-Squared	0.534	Adjusted R-Squared		0.342
F-Statistic	6.831	Durbin-Watson Stat		1.034
Prob(F-Statistic)	0.000			

It shows from the analysis of table (6) that all independent variables affect the dependent variable ROE positively; except for which has a reverse or negative impact on ROE. The large number of BdMeet may create a delicate debate in the distribution and management of earnings; in favour of shareholders while the rest of variables it have a

positive impact on the ROE of shareholders. Results of this study agree with results of several previous studies, the most important of those are (Abuhamour et al., 2021).

The Board of Directors' characteristics in the non-financial Jordanian companies listed on the ASE work efficiently and effectively and control the institutional performance to ensure the implementation of performance policies and the compliance with regulations and instructions that govern the performance, where the control and compliance with corporate governance rules improve the ROA as well as the ROE. This study recommends the need for continuous studies and researches about the effect of Board of Directors' characteristics on improving companies' financial performance, due to the need and importance of pursuing scientific research in this field where Board of Directors has huge authorities that enable them to modify and correct the performance paths of companies; in general and improve its financial performance in specific. Therefore, the study of Board of Directors' characteristics impact on the quality of internal audit under the Corona pandemic may be an important topic in this field.

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