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The Effect of Social Responsibility Disclosure on Corporate Performance in Five Arab Countries: Evidence on the Moderating Role of Stakeholder Influence Capacity and Family Ownership

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Abstract: This paper examines the effect of social responsibility disclosure on corporate performance. It further examines the moderating effect of stakeholder influence capacity and the level of family ownership on the link between social responsibility disclosure and corporate performance. The statistical sample consists of companies listed on the stock exchanges of five Arab countries (including Saudi Arabia, the United Arab Emirates, Kuwait, Qatar, and Iraq) during 2015-2020. The hypotheses are tested using multiple regressions. Results show that there is a positive significant relationship between social responsibility disclosure and corporate performance. Moreover, the moderating effect of the stakeholder influence capacity is limited to customers' influence capacity. The results also reveal that the level of family ownership strengthens the impact of social responsibility disclosure on corporate performance. The results are robust to a variety of sensitivity tests.

Keywords: social responsibility; performance, sustainable development; environmental stakeholders, Energy

1. Introduction

In recent decades, large and effective businesses in economic development have often been criticized because they are the reason for some social problems[1]. These criticisms increased the desire of companies to carry out and disclose corporate social responsibility disclosure (CSRD). For example, companies are more or less forced to disclose reports about social problems such as waste of resources, pollution, quality of products, depletion of natural resources, salaries and status of employees[2].

Historically, research on CSRD began in the 1970s with studies on the effect of pollution and social responsibility on the stock market. Since then, it has become a rich research area[3]. Researches, in general, consider social activity as a set of activities that companies do for the development and improvement of the social and welfare status of the stakeholders and the society, as well as maintenance of their relations with them voluntarily or by force of laws, norms or customs[4].

The developed countries such as the USA and the UK are among the first countries that addressed the concept of CSRD. They found that business needs to interact properly with society and implement social activity strategies for the benefit of society[5]. So the number of companies that provide social responsibility reports in the United States has increased. In addition, the UK, as one of the large economies, has a significant role in learning and spreading the disclosure of social responsibility reports through Business in the Community (BITC)[6]. In fact, UK has encouraged companies to submit social responsibility reports by carrying out activities such as introducing the environmental report award of the Association of Chartered Certified Accountants (ACCA) of England or forming several research institutions and promoting social and environmental activities.

Among the plethora of research questions on the factors and consequences of social responsibility disclosure, the link between social responsibility disclosure and financial performance has been considered as one of the most attractive research areas, and academic research in many countries has considered this issue. For example, some researchers investigated the existence of social responsibility and its financial consequences in developed countries including UK and USA[7]. Theoretically, by allocating significant resources and capital to social responsibility activities, companies use these activities as a stimulus to develop and improve performance [8]. In fact, the tendency towards social responsibility encourages the firm to try to improve the environment, optimal use of energy and materials, waste management, etc. As a result, business units can maximize their returns by reducing their negative effects on society. With this analysis, today this thinking is increasingly being formed among business units that their long-term success can be realized through managing the company's operations, while ensuring the appropriate corporate social activities[9].

Specifically, prior research examined US companies to assess the effect of social responsibility on financial performance[10]. They found that the higher the social responsibility disclosure score, the better the company's financial performance. Other researches also measured this relationship in developing countries[4].

However, few researchers have investigated social responsibility and its effect on the performance of companies in Arab countries in the Middle East. This is while due to the cultural, economic, political and especially religious differences in the Arab countries of the Middle East, the research results of other countries cannot necessarily be generalized to these regions. For example, in the mentioned countries, the level of influence of the stakeholders of social responsibility reports is different, and in addition, family ownership has a stronger role in the management of companies. Therefore, this research aims to measure social responsibility in five Arab countries and its effect on the performance of companies, taking into account the moderating role of the influence of stakeholders and the level of family ownership. Based on the theory of socio-emotional wealth, the level of influence of stakeholders and the level of family ownership can affect the link between CSRD and financial performance. For example, family-owned companies have a great tendency to respond to social issues and stakeholders compared to other companies and it is believed that the distinctive characteristic of family companies is the effort to maintain the continuity of activity and their reputation in society[11].

2. Literature review and hypotheses development

Although there is no single and universal definition for social responsibility, in general, CSRD is defined as the responsibility and fulfillment of the obligations of companies towards various stakeholder groups and the society in which they operate. Sheldon was the first to link business to social responsibility[12]. He believed that ethically, companies should meet different levels of people's needs as part of their business operations. Social responsibility not only forces companies to meet the stakeholders' expectations, but also encourages companies to continuously increase their awareness of issues related to society and the environment. Today, companies have realized the importance of social responsibility more than ever. Therefore, companies, civil institutions and public supervision should continue to be diligent in promoting democracy with respect for human rights, growth, development, public welfare and improvement of living standards. CSRD is a concept through which companies and organizations voluntarily reduce social and environmental concerns by operating and interacting with stakeholders in their business. This is one of the important factors that influence the sustainable development of companies and a company that is able to understand the importance of social responsibility can increase its competitive advantages[13].

In the last decade, many researches have been conducted on social responsibility in developing countries[14]. Social responsibility, especially considering the current social and environmental sensitivities in the region[15], has the potential to create economic and social value in the Middle East. However, despite the evidence that social responsibility is increasingly considered important by companies and capital market actors, there is still no uniform discussion among researchers about the link between social responsibility and performance[16]. In fact, researches have provided different results about the effect of social responsibility on the corporate performance so far.

In the first group, researchers concluded that mainly companies can benefit from social responsibility activities both financially and non-financially and improve their performance[17]. In fact, participation in social responsibility can have a positive effect on performance. In other words, participating in social activities and disclosing it makes companies maintain their reputation and strengthen their moral characteristics. Some argues that companies with a strong ethical identity take a step to achieve shareholder satisfaction, which in turn positively affects the company's financial performance. In addition, participation in social activities and disclosure of related information acts as an indicator to increase the reliability of business units[18]. In other words, carrying out social activities and disclosing them causes stakeholders to interpret these types of activities as a signal of the company's successful efforts to meet their expectations, and as a result, the investment risk decreases and the amount of investment increases[19]. In addition, a systematic review of the current state of social responsibility in Middle Eastern countries. In this systematic review, they show that social responsibility activities are increasing in Middle Eastern countries. Also, stakeholders and institutions, political and economic crisis and individualistic personality traits of managers affect the social responsibility of firms. researchers observed a sample of four agricultural industries between 2015 and 2017 using a purposive sampling method[20]. This study examines the effect of social responsibility on agricultural businesses in terms of profitability and evaluates the link between social responsibility and financial performance of companies in the agricultural industry. Results show that social responsibility has a significant effect on the net income and return on equity of companies.

In the second group, researchers have an opposing view that social responsibility activities harm financial performance. They study the effect of CSRD on the financial performance of companies listed on the Shanghai Stock Exchange[21)]. The results show that financial performance decreases as CSRD increases. Recent research in emerging markets theoretically and empirically confirms that social responsibility varies in its impact on performance[22)]. Specifically, the absence of the necessary and supporting institutions might circumscribe the ability of CSRD to generate significant performance returns for emerging market firms that engage in such initiatives. Hence, the authors reported that social responsibility had a significant negative effect on financial performance.

According to what was said about the conflict of views regarding the link between CSRD and performance, the first hypothesis is presented without direction and as follows:

First hypothesis: There is a significant relationship between CSRD and performance.

According to the stakeholder theory, the success of organizations depends on their capacity and ability to manage relationships with their stakeholders. Managing relationships with the main stakeholders has become one of the necessary tools for value creation. Based on stakeholder theory, managing relationships with different stakeholder groups leads to better financial performance of the company. When the company pays attention to the interests of stakeholders, it voluntarily reports more environmental and social information according to their needs[23)]. Disclosure of social responsibility information improves the stakeholders' perceptions regarding the company and also fulfills the interests of the stakeholders. Some companies believe that when good relations with stakeholders are established, financial performance as well as valuable intangible assets such as resources and capabilities of the organization are developed[24)]. In this regard, many researchers believe that stakeholder relationship management helps to improve corporate performance. Social responsibility makes it possible to have more influence on the stakeholders by improving the relations with the stakeholders. These effects lead to an interactive relationship that improves revenues or reduces costs [25)]. According to the above, the second hypothesis is as follows:

Second hypothesis: Stakeholders' influence capacity moderates the link between CSRD and corporate performance.

In general, the influence of family ownership in the management and leadership of the company causes the difference in corporate policies and financial performance of family companies compared to non-family companies[26)]. There are two views regarding the effect of family ownership on social responsibility processes[27)]. In the first point of view, it is believed that the existence of family ownership in companies makes them focus more on social and environmental investments[15)]. In other words, in the ownership structure of family companies, due to ownership concentration and long-term investment horizon for maintaining the social position and transferring the family heritage to the next generations, there is a great incentive to increase the corporate value in the long term, and due to the great importance of reputation and the family's reputation and also the great desire to preserve the family's assets, managers are encouraged to participate more in social responsibility activities [28)] and as a result, the performance of those companies is affected. Bahrain, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates are Middle Eastern countries where the family is at the center of all social, economic, and political activities. On the other hand, the existence of family ownership in companies causes them to make more efforts in the direction of profitability, so companies with a high level of family ownership consider social responsibility as a genuine obligation (and not necessarily only a strategic economic decision) and they believe that the cost of social responsibility is more than its benefits. According to the second point of view, the presence of family ownership in companies causes them to focus less on social and environmental investments. For example, researchers provide evidence that family firms perform less socially responsible than non-family ones [29)]. According to the above, the third hypothesis is as follows:

Third hypothesis: Family ownership moderates the link between CSRD and corporate performance.

3. Methodology

3.1 sample

The statistical population includes companies listed on five major stock exchanges in the Arab countries of the Middle East, including Saudi Arabia, the United Arab Emirates, Kuwait, Qatar, and Iraq. The time domain of the research is 2015 to 2020. Data are obtained from the accessible website of Argaam (https://www.argaam.com). The statistical sample includes all the mentioned companies, with the exception of observations that lack sufficient information. Table 1 shows the details of the sample selection process separately for the five mentioned exchanges.

Table 1. Sample

	Saudi	UAE	Kuwait	Qatar	Iraq	Total
Number of all observations	1230	372	918	288	840	3648
Number of financial and service observations	720	252	618	156	534	2280
Number of observations lacking the necessary information	18	36	209	18	204	485
Number of sample companies	492	84	91	114	102	883

Note: This table summarizes the section process of research sample.

3.2 Test models and measuring variables

According to the hypotheses, the dependent variable is financial performance and the independent variable is the disclosure of social responsibility. In addition, two moderating variables include the stakeholders' influence capacity and family ownership. The method to measure these variables, along with the most important control variables that are selected based on the research literature[30], are explained after presenting the test models.

To test the first hypothesis (based on the existence of a significant relationship between CSRD and performance), the following model is used.

$$Rev = a_0 + a_1CSRD + a_2Size + a_3Age + a_4Lev + a_5EM + a_6Indep + Country\text{-}Fixed\text{-}Effects + Industry\text{-}Fixed\text{-}Effects + Year\text{-}Fixed\text{-}Effects \quad \text{(Model 1)}$$

Also, for the second hypothesis (based on the effect of stakeholders' influence capacity on the link between CSRD and performance), the following model fitting is used:

$$Rev = a_0 + a_1CSRD + a_2Stak + a_3Size + a_4Age + a_5EM + a_6Indep + a_7CSRD\times Stak + Country\text{-}Fixed\text{-}Effects + Industry\text{-}Fixed\text{-}Effects + Year\text{-}Fixed\text{-}Effects \quad \text{(Model 2)}$$

In the above model, all the variables are similar to the first model, and only the variable of stakeholder influence capacity (*Stak*) and a multiplicative variable (*CSRD×Stak*) have been added to the model. Stakeholders' influence capacity is separated based on the components of CSRD score which are related to the employees, customers, environmental stakeholders and other parts of the society. Therefore, the above model, equivalent to the number of capacities and according to different stakeholders, can be adapted several times. Other variables are defined as described in the above table.

To test the third hypothesis (based on the influence of family ownership on the significant relationship between CSRD and performance), the following model is used:

$$Rev = a_0 + a_1CSRD + a_2Family + a_3Size + a_4Age + a_5Lev + a_6EM + a_7Indep + a_8CSRD\times Family + Country\text{-}Fixed\text{-}Effects + Industry\text{-}Fixed\text{-}Effects + Year\text{-}Fixed\text{-}Effects \quad \text{(Model 3)}$$

In this model, all the variables are similar to the first model, and only the family ownership capacity variable (*Family*) and a multiplicative variable (*CSRD×Family*) have been added to the model. Family ownership variable is checked based on the presence of family ownership.

Table 2 shows all the variables included in the test models along with their measurement methods.

Table 2. Measurement of variables

Variables	Definition
CSRD	The variable is corporate social responsibility. This variable is measured using the social responsibility checklist. This checklist, includes 39 items of information related to six dimensions of environmental issues (*ENV*), products and services (*P&S*), human resources (*EMP*), customers (*CUST*), society (*C&R*) and energy (*ENG*).
Rev	The corporate performance is a financial index that provides comparability between companies to a large extent and is measured by income and is homogenized with the total book value of assets. It is worth mentioning that in the sensitivity tests, the dependent variable will be calculated once again using the profit-to-asset ratio and the tests will be renewed.
Stak	The moderating variable is the stakeholders' influence capacity, which can be separated based on the components of capacity related to employees, capacity related to customers, capacity related to environmental stakeholders, and capacity related to other sectors of society [31]
Family	Family companies include companies where one or more family members own at least 50% of the company's equity. In this research, the companies are separated with code 1 for family companies and code 0 for non-family companies.

SIZE	The term is the corporate size because the bigger the size of the company, the better the performance of it. This research uses the logarithm of the book value of assets to measure the size of the company.
Age	It is the corporate age, which measures the development and efficiency of management methods, in this research, it is measured by the natural logarithm of the corporate age.
Lev	It is financial leverage which is measured by the ratio of liabilities to assets of the company. Companies that have a higher financial leverage will have a lower tax burden and a more effective tax rate, therefore financial leverage has an impact on financial performance.
EM	In this research, the signed version of residuals from modified Jones model is used to measure earnings management
Indep	board independence is measured by dividing the number of non-executive members of the board of directors by the total number of board members.

Note: This table defines the research variables.

4. Results

4.1. Descriptive Statistics

Table 3 shows the descriptive statistics of the variables. The mean and standard deviation of the CSRD variable are 9.197 and 6.685, respectively, and are relatively comparable to previous literature. Similarly, the average and standard deviation of the return variable as a symbol of financial performance are equal to 0.029 and 0.090, respectively, which are comparable to other countries in the Middle East. The mentioned table reports the descriptive statistics of the variables related to the stakeholders' influence capacity (subsets of the general characteristics of CSRD) and family ownership along with the set of control variables. Table 4 shows the correlation coefficients of variables to measure the link between variables. Although this table shows the two-by-two relationships of the variables, it shows that the link between the explanatory variables is not so high (greater than 5%) that there is concern about the problem of multicollinearity in the research. This conclusion is well confirmed by the VIF index because none of the values is higher than 10 (or even 5).

Table 3. Descriptive Statistics

Variable	Obs	Mean	Median	SD	Max	Min
Rev	883	0.029	0.030	0.091	0.378	-0.367
CSRD	883	9.197	7	6.685	30	1
Stack:						
ENV	883	1.498	0	2.146	8	0
P&S	883	1.001	0	1.298	4	0
HUM	883	3.225	3	1.949	8	0
CUST	883	0.379	0	0.736	3	0
C&R	883	2.804	2	1.336	6	0
ENG	883	0.281	0	0.605	3	0
Family	883	0.166	0	0.373	1	0
Size	883	9.301	9.257	0.875	12.533	7.234
Age	883	1.388	1.432	0.267	1.838	0.6
Lev	883	0.394	0.365	0.328	2.335	0
EM	883	-0.001	0.000	0.068	0.298	-0.265
Indep	883	0.814	0.719	0.264	1	0

Note: This table presents the descriptive statistics for the research variables.

Table 4. Correlation coefficients of the main research variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	VIF
(1)	1							---
(2)	0.011	1						1.23
	(0.741)							
(3)	0.054	0.007	1					1.01
	(0.111)	(0.839)						

(4)	-0.081**	-0.003	0.005	1				1.02
	(0.018)	(0.932)	(0.876)					
(5)	-0.206***	0.025	0.074**	0.098***	1			1.03
	(0.000)	(0.459)	(0.028)	(0.004)				
(6)	0.006	0.036	-0.049	0.062*	-0.047	1		1.02
	(0.856)	(0.292)	(0.149)	(0.066)	(0.164)			
(7)	0.019	-0.437***	0.015	0.043	-0.077**	0.036	1	1.31
	(0.575)	(0.000)	(0.657)	(0.204)	(0.022)	(0.282)		

Note: This table presents the correlation coefficients of the main research variables. ***/**/* refers to the statistical significance at 1/5/10% level. Parentheses show p-values. The numbers denote as follows: (1) *Rev*; (2) *CSRD*; (3) *Size*; (4) *Age*; (5) *Lev*; (6) *EM*; (7) *Indep*

4.2. Inferential statistics

According to the first hypothesis, this research predicts that there is a significant relationship between CSRD and performance. To test this hypothesis, according to test model 1, performance on social responsibility is fitted along with a set of control variables and Fixed Effects of country, industry and year. The results of the hypothesis test are reported in Table 5. The adjusted R squared and the F statistic of the regression model show that the test model has sufficient strength. In other words, based on the aforementioned statistics, the explanatory variables (both the main independent and control variables) can significantly explain the dependent variable. Regardless of the general statistics of the model, as can be seen, the significance level of the CSRD variable is less than 5% (significance level = 0.011), showing that the CSRD variable has a statistically significant relationship with the performance variable. The impact of CSRD on performance is also *economically* significant as a one standard deviation rise in CSRD is associated with a 29% growth in the performance (0.004×6.685/0.091)[32]. Therefore, according to the first hypothesis, it can be confirmed that CSRD affects performance. In addition, the sign of the variable coefficient of CSRD is positive (coefficient = 0.004), indicating that the effect of CSRD on performance is direct in the sense that by increasing the CSRD disclosure, the corporate performance improves. This result is in accordance with the first point of view expressed in the theoretical principles, because according to the mentioned point of view, CSRD improve the corporate performance[32]. Therefore, in summary and based on the statistical results, it can be stated that, in the five countries included in the statistical population, there is a significant positive relationship between the CSRD disclosure and the performance of companies listed on the stock exchange.

The last mentioned table also shows that corporate size and earnings management also have a significant effect on the company's performance, so that as the size of the company increases, the performance improves and as the earnings management increases, the performance weakens.

Table 5. Relationship between CSRD and corporate performance

Variable	Coef	P-value
Constant	-0.148	0.270
CSRD	**0.004****	**0.011**
Size	0.048***	0.000
Age	0.032	0.356
Lev	-0.037	0.181
EM	-0.391***	0.001
Indep	0.039*	0.082
Year-Fixed-Effects	Included	
Industry-Fixed-Effects	Included	
Country-Fixed-Effects	Included	

Adj. R^2	0.154	
F statistic (significance)	5.010 (0.000)	
Obs	883	

Note: This table represents the statistical relationship between social responsibility disclosure (CSRD) and corporate performance. ***/**/* refers to the statistical significance at 1/5/10% level.

Based on the second hypothesis, this research expects that the stakeholders' influence capacity has an effect on the link between CSRD and corporate performance. In other words, this research predicts that the influence capacity of different stakeholders can significantly adjust the link between CSRD and performance. To test this hypothesis, according to the test model 2, the performance on CSRD and also the "interactive variable of CSRD and stakeholders' influence capacity" are fitted along with a set of control variables and Fixed Effectss of country, industry and year. Since in this research, the stakeholders' influence capacity is divided into the following six capacities, it is obvious that the mentioned regression is fitted six times, therefore, proportionally, the statistical results are presented in six columns of Table 6. Based on this, the results of the second hypothesis test are reported in the table. The adjusted R squared and the F-statistics of the six regression models show that, in total, the test models of the second hypothesis have sufficient strength. As can be seen in the mentioned table, the significance level of the interactive variable (the product of social responsibility and the influence capacity of stakeholders), with the exception of one case, is greater than 5% in all the six columns mentioned, indicating that the influence capacity of stakeholders, in most cases, cannot statistically affect the link between CSRD disclosure and performance. The only exception is related to the influence coefficient of customers in fourth column, indicating that the influence coefficient of customers can statistically affect the link between CSRD and performance. Therefore, it can be generally confirmed that among the various stakeholders, only the influence capacity of the customers has a moderating role, therefore the second hypothesis is confirmed only in the case where the influence capacity of the stakeholders includes the influence capacity of the customers, and in other items cannot be confirmed. In addition, the sign of the coefficient of the interactive variable "CSRD×Cust" is positive (coefficient = 0.003) and is in line with the positive sign of the social responsibility coefficient. This shows that the influence capacity of customers strengthens the link between social responsibility and performance. This result is in line with the view that the success or prosperity of organizations depends to a large extent on their capacity and ability to manage relationships with customers. Therefore, based on the statistical results, it can be stated that, in the five countries included in the statistical population, only the influence capacity of customers can determine the link between CSRD and the performance of companies listed on stock exchange.

Table 6. The moderating role of stakeholder influence capacity

Variable	**Moderator: *ENV***		**Moderator: *P&S***		**Moderator: *EMP***		**Moderator: *CUST***		**Moderator: *C&R***		**Moderator: *ENG***	
	Coef	**P-value**	**Coef**	**P-value**	**Coef**	**P-value**	**Coef**	**P-value**	**Coef**	**P-value**	**Coef**	**P-value**
Constant	Included		Included		Included		Included		Included		Included	
CSRD	0.005	0.143	-0.005	0.233	0.004	0.419	0.005**	0.035	0.003	0.526	0.005**	0.032
Moderator	-0.021	0.125	0.015	0.415	-0.021**	0.042	0.071***	0.005	0.005	0.792	0.046	0.249
CSRD×Moderator	**0.001**	**0.282**	**0.001**	**0.282**	**0.001**	**0.299**	**0.003****	**0.046**	**0.001**	**0.983**	**-0.002**	**0.219**
Controls	Included		Included		Included		Included		Included		Included	
Year-Fixed-Effects	Included		Included		Included		Included		Included		Included	
Industry-Fixed-Effects	Included		Included		Included		Included		Included		Included	
Country-Fixed-Effects	Included		Included		Included		Included		Included		Included	
Adj. R^2	0.156		0.159		0.158		0.162		0.154		0.155	
F statistic (significance)	4.765 (0.000)		4.893 (0.000)		4.840 (0.000)		4.990 (0.000)		4.703 (0.000)		4.752 (0.000)	
Obs	883		883		883		883		883		883	

Note: This table shows how different stakeholder influence capacities affect the statistical relationship between social responsibility disclosure (CSRD) and corporate performance. ***/**/* refers to the statistical significance at 1/5/10% level.

Based on the third hypothesis, this paper predicts that family ownership will influence the link between CSRD and corporate performance. In other words, it is expected that family ownership can significantly moderate the link between CSRD and performance. To test this hypothesis, according to test model 3, performance on social responsibility and "interactive variable of social responsibility and family ownership" are fitted along with a set of control variables and Fixed Effects of country, industry and year. Based on this, the results of the third hypothesis test are presented in Table 7. The adjusted R squared and the F-statistic of the regression model show that all the models of the third hypothesis test have sufficient strength. As it can be seen, the significance level of the interactive variable (the product of CSRD in family ownership) is strongly significant (even at the one-thousandth error level), indicating that family ownership can statistically affect the link between disclosure of CSRD and performance. Therefore, it can be confirmed that family ownership has a moderating role and the third hypothesis is confirmed. In addition, the sign of the coefficient of the interactive variable "*CSRD×Family*" is positive (coefficient = 0.012) and aligned with the positive sign of the social responsibility coefficient. This shows that family ownership strengthens the link between social responsibility and performance. Since the CSRD coefficient shows the conditional effect, it can be stated more precisely that when the company lacks family ownership, there is no significant relationship between CSRD disclosure and performance, but when that the company has family ownership, there is a significant relationship between CSRD and performance. This result is in accordance with the view that in the ownership structure of family companies, there is a great incentive to increase the value of the company due to ownership concentration and long-term investment horizon to maintain the social position and transfer the family heritage to the next generations. Therefore, based on the statistical results, it can be stated that in the five countries included in the statistical population, family ownership can be the link between the CSRD disclosure and the performance of companies listed on the stock exchange.

Table 7. The moderating role of family ownership

Variable	Coef	P-value
Constant	Included	
CSRD	0.001	0.446
Family	-0.083**	0.032
CSRD×Family	**0.012*** **	**0.000**
Controls	Included	
Year-Fixed-Effects	Included	
Industry-Fixed-Effects	Included	
Country-Fixed-Effects	Included	
Adj. R^2	0.171	
F statistic (significance)	5.309 (0.000)	

Note: This table shows how family ownership influences the statistical relationship between social responsibility disclosure (CSRD) and corporate performance. ***/**/* refers to the statistical significance at 1/5/10% level.

4.3. Sensitivity tests

4.3.1. Lag analysis

In the main analysis of this research, the link between CSRD and current performance was evaluated. Because there was this premise that, firstly, the disclosure of CSRD can be a symbol of social performance, therefore, the financial performance of companies in the same year that the social performance occurs, can be influenced by the CSRD disclosure. Secondly, different stakeholders are informed about the social performance of companies every year through interim reports and other information sources, therefore, the performance of companies in the same year of CSRD can be influenced by the disclosure of social responsibility. However, there are reasons that make it necessary to conduct a discontinuity analysis, that is, the link between CSRD and future performance. For example, firstly, the CSRD of year t is usually done by annual reports in year t+1, therefore the performance of year t+1 is probably affected. Secondly, interval analysis helps the causal inferences of this research about the link between CSRD and performance. Based on this, the results of first column in Table 8 are related to the regression fit of the next year's performance on the current CSRD. As can be seen, the significance level and the variable coefficient of social responsibility are still less than the statistical thresholds of 5% and positive, meaning that if the future performance is replaced with the current performance in the past analysis, again there will be a significant relationship between CSRD and future performance.

Table 8. Sensitivity analyses

Variable	Lag analysis		Alternative measure		Clustering of standard errors	
	Coef	P-value	Coef	P-value	Coef	P-value
Constant	Included		Included		Included	
CSRD	**0.005*** **	**0.008**	**0.001***	**0.096**	**0.004*** **	**0.007**
Controls	Included		Included		Included	
Year-Fixed-Effects	Included		Included		Included	
Industry-Fixed-Effects	Included		Included		Included	
Country-Fixed-Effects	Included		Included		Included	
Adj. R^2	0.133		0.161		0.154	
F statistic (significance)	4/84 (0.000)		5/28 (0.000)		5.81 (0.000)	
Obs	728		883		883	

Note: This table shows how the statistical relationship between social responsibility disclosure (CSRD) and corporate performance is sensitive to lag analysis, alternative measure of performance, and clustering of standard errors. ***/**/* refers to the statistical significance at 1/5/10% level.

4.3.2. Alternative measure

In the main analyzes, the income figures of the companies (which were homogenized by using total assets) were used. This way of measuring performance is in accordance with the concept that different stakeholders are influenced by the income (and not necessarily the profits of the companies). However, in the financial literature, one of the most widely used performance indicators is return on assets RAO. Therefore, here once again, past analyzes are renewed by measuring performance by RAO. In line with this analysis, the second column in of Table 8 reports the results of the regression fitting of asset returns on current CSRD. The level of significance and the coefficient of the social responsibility variable is significant positive at the error level of 10%, meaning that if the performance of assets is measured, there is still a significant relationship between the disclosure of social responsibility and future performance.

4.3.3. Clustering of standard errors

In research literature, to reduce various regression problems, such as reducing the heterogeneity of variance, clustering of regression standard errors at the company level is used in most of the valid researches. Therefore, according to this literature, the past analyzes are tested again after the mentioned clustering. Results of the third column in Table 8 are the result of regression fitting based on the clustering of regression errors. These results show that the level of significance and the variable coefficient of social responsibility are still at a favorable and positive level, therefore, in case of clustering of errors, the statistical results do not change significantly.

5. Conclusion

This study examined the link between CSRD disclosure and corporate performance, as well as the influence of the stakeholders' influence capacity and the level of family ownership on this relationship. Results of the empirical test of the data related to the companies listed on the stock exchange of the five Arab countries of the Middle East during 2015-2020 showed that, first, there was a significant positive relationship between social responsibility and performance. Secondly, except for the influence capacity of customers, which strengthens the link between disclosure of social responsibility and performance, the capacity of influence of other stakeholders had no moderating role. Third, the level of family ownership strengthened the link between social responsibility and performance. These results had sufficient strength compared to sensitivity tests. These results are generally in line with recent theoretical or experimental research literature[9)].

Our study can contribute to the development of the literature in several ways. First, while previous studies in some Arab countries have investigated the effect of social responsibility on corporate performance, this is the first study that uses a large panel of Middle Eastern Arab companies to investigate the aforementioned effect. Second, this study for the first time studies the moderating role of stakeholders and family ownership in the link between CSRD and financial performance. As a result, it can help capital market activists and researchers to better understand the consequences of social responsibility and the manner of strengthening the effect of social responsibility and financial performance. In particular, as this study provides insights into corporate performance and various dimensions of social responsibility, it will help stakeholders in the developing Arab countries of the Middle East to improve their corporate social performance disclosure.

However, this research has some limitations. First, although a significant number of control variables have been included in this research, it was not possible to use more variables because more control variables would have severely reduced our sample. Instead, by including country, industry, and Year-Fixed-Effects, the effects of the unincorporated control variables are largely controlled. However, readers should be cautious about this issue according to the type of research community they are looking for. Secondly, this study did not have access to direct data related to the measurement of social performance of companies, therefore it is based on the premise that what is disclosed in the financial reports significantly indicates the social performance of the company. However, readers should be aware of this assumption. Thirdly, some of the stakeholder influence capacity may be related to different stakeholders. Thus, this may influence the empirical results, making readers to have some caution in using the empirical results.

Future researchers are recommended to identify the nuances related to the influence capacity of the stakeholders by expanding the results of this research, and through laboratory or survey research, because this type of research can adjust limitations related to access to experimental data and in addition, reveal the hidden layers related to the actions of the stakeholders. In addition, the evaluation of other moderating variables regarding the link between social responsibility and performance, such as company strategies, legal or political sanctions, active public opinion, etc., can help to better understand the said relationship.

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