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Examining the Relationship between Size of the company, Ownership Structure, and Corporate Governance with Corporate Social Responsibility Disclosure in Iran

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Abstract

The scholars of social responsibility have focused on identifying the factors affecting corporate social responsibility disclosure (CSRD). Corporate social responsibility is a key factor in the survival of any organization. The purpose of the study was to examine the relationship between the size of the company, ownership structure, and governance structure to explain the determinants of Corporate social responsibility in Iran. Regarding this, the data of 127 companies listed on the Tehran Stock Exchange from 2009 to 2018 were collected and analyzed. Multiple regression model as panel data and fixed effects method was used to test the hypotheses. The results from the study tests indicated that the size of the company is an effective factor in Corporate social responsibility in Iran. The role of this factor is positive. Larger companies have been more successful in Corporate social responsibility. Moreover, the ownership structure is a determining factor and has improved the disclosure of social responsibility. The presence of major owners in the company potentially enhances the dissemination of information and protects the interests of minority shareholders, and the corporate governance structure has not been a determining factor in Corporate social responsibility in Iran. Indeed, the board's ability to perform its duties decreases when its size is large.

Keywords: Size of the company, Ownership structure, Governance structure, Corporate social responsibility disclosure.

Introduction

Corporate social responsibility (CSR) addresses ethical issues about company behavior and decision making on issues like human resource management, environmental support, occupational health, social relationships, and relationships with suppliers and customers (Costello and Lima, 2006). CSRs include the theory of legitimacy, theory of interest groups and the theory of political economy, all of which show that the managers want to disclose social information for various reasons like gaining organizational legitimacy or pressure from interest groups. However, there is a belief in the need to develop laws and standards in this field in the theory of political economy. There are both ethical and managerial branches in stakeholder theory. The ethical sphere deals with how organizations should treat their stakeholders. This view stresses the responsibilities of organizations. In contrast, the management branch of stakeholder theory emphasizes the need for the management of special stakeholder groups (Foroughi et al., 2008).

It is understandable that larger companies have more social responsibility disclosures. This is because they are more inclined to attract public attention and are therefore under more pressure to engage in social responsibility activities. Thus, the public attention to these companies makes them committed to social activities and try properly inform and disclose these activities to gain public trust. Furthermore, larger companies may have more shareholders supportive and interested in the company's social activities (Kahn et al., 1987). Bamber and Paolin (2008) found that ownership concentration makes the firm reluctant to enhance discretionary disclosure because major owners can get information directly from the company. However, for minority shareholders, the only source of information is the company's financial statements. Simultaneously, other owners have the potential to affect corporate financial reporting practices (Bamber and Paolin, 2008).

Hence, the community enables companies to survive in the long run. The community takes advantage of the activities and behavior of companies. The expansion of corporate accountability implies that corporate responsibilities go beyond what they used to be - providing money to shareholders. The companies must be accountable to the stakeholders (shareholders, customers, employees, suppliers, banks, legislators, the environment and the community). Therefore, besides economic responsibility, companies must feel responsible for social issues. Therefore, because of the significance of CSR and related disclosures, adequate care should be taken in financial reporting. Exercising supervision and care here might need the existence of corporate governance mechanisms (Xiao et al, 2005).

Given the above, the main problem of the study is whether the ownership structure and the governance structure potentially lead to the voluntary CSRD in Iran. Clarifying these factors can help managers determine financial reporting strategies and be useful for regulators of corporate disclosure.

Literature Review

Walker (2004) conducted a study on consumer protection of socially responsible businesses and showed that 88% of American consumers tend to buy from a socially responsible company. There is much proof that it is useful for companies to enter the category of organizational social responsibility (for example, Tan et al., 2004; Werner, 2000). Additionally, the social responsibility of business units is recognized as an essential component of organizational marketing strategies that usually strengthens and empowers the organizational brand. The significance of paying attention to social responsibility becomes clear when organizations try to obtain the same groups of customers with the same products or services (Bamber and Paolin, 2008).

Fang et al. (2019) stated that large companies are at the center of the special attention of various groups in the community, so they are under more pressure to disclose social responsibility to legalize the activities of this group of companies. Thus, they found a positive and significant relationship between CSR and the size of the company. Indeed, larger companies are affected by the community and need to legitimize their activities in the community more because of societal pressures. Moreover, larger companies usually use tools like the disclosure of environmental and social information to reduce their political costs (Gary et al., 2001; Hanifa and Cook, 2005). The results of Harrodrosario et al. (2017) indicated that larger companies whose source of revenue is oil and gas are more inclined to publish the most complete CSR reports. Badulescu et al. (2018) concluded a positive relationship between the size of the company and CSRD, and in fact, smaller companies are reluctant to submit CSR reports. It is understandable that larger companies offer more social responsibility as the most important part of the community. The community is paying more attention to larger companies in preparing such reports (Badulescu et al., 2018).

With a glance at the improvement in the disclosure of social responsibility, Mohammad Bassam and Michel (2019) considered the role of ownership structure significant. On the other hand, the percentage of independent (non-executive) directors on the board, the duality of the position of CEO and the position of chairman, the age of the director, the degree of ownership of the board and the percentage of significant shares held by institutional shareholders have had a significant negative impact on CSR level. In examining the effect of national culture and corporate governance on CSR, Adnan et al. (2018) found a positive relationship between corporate governance and a negative relationship between national culture and social responsibility reporting. Large companies with legal personalities in a community where the government has a lesser role have a higher quality of CSR reporting. Large companies, with a board of directors, and reports of social responsibility by the rulers of companies in a social format have more power and quality. While the government ownership affects reporting and the quality of CSR reporting is adjusted by them in some cases and causes harmful effects on CSR reporting and the development of CSR guidelines and the creation of sustainable reporting throughout the country. In an empirical analysis of the effect of CEO ability and corporate governance on CSR performance, Sanchez et al. (2019) found that CEO ability is a unique resource that can help companies manage agency problems and the mechanism governing CSR has a positive effect. CEO ability and corporate governance have a significant effect on increasing the performance of CSR in a company. CEOs are typically less likely to engage in CSR activities, whereas the results of this study highlight the brilliance of the CEO and the role of corporate governance. Given the above theoretical foundations, one can see that all profit organizations and units face social responsibility and the resulting challenges. This is because of the interaction between them and the community and is potentially inevitable (Mandhachitara and Poolthong, 2011). Here, financial institutions and banks must pay serious attention to the dimensions of social responsibility, as they are directly related to the community. Understanding that trust is a functional prerequisite for bankers' activity can provide a justification for regulating the industry in areas of market failure, including information asymmetry, the nature of financial contracts and outflows. Responsible and ethical behavior increases trust and reputation, which has a great effect on the development of effective information frameworks, which are part of the basic foundations of a financial system. Thus, three basic aspects necessitate the present study.

1) Focus on the role of social responsibility and explain the factors affecting its disclosure to inform users about the evaluation of the corporate financial reporting environment

2) Assisting managers in determining the correct financial reporting strategies

3) Assisting the regulators of corporate disclosure to determine the regulations that need them to disclose part of their social activities in accordance with certain characteristics of companies

Research Background

In examining the relationship between social responsibility and the financial performance of large corporations, Fang et al. (2019) found that large corporations are at the center of special attention of various groups in the community; thus, there is more pressure to disclose social responsibility to legalize activity in this group of companies. Hence, they found a positive and significant relationship between CSR and the size of the company. Indeed, larger corporates are affected by the community and need to legitimize their activities in the community more because of societal pressures. Additionally, larger companies often use tools like the disclosure of environmental and social information to reduce their political costs.

In a study on the empirical analysis of the effect of CEO ability and corporate governance on CSR performance, Sanchez et al. (2019) found that CEO ability is a unique resource that can help companies manage agency problems and build and has a positive effect on the mechanism governing CSR. The ability of the CEO and corporate governance to increase the performance of CSR in a company has a significant effect. Typically, CEOs are less likely to engage in CSR activities, whereas the findings of this study highlight the brilliance of the CEO and the role of corporate governance.

In a study on CSRD, corporate governance and multinational activities, Kofi et al. (2018) showed that corporate governance and multinational activities both have a positive effect on the quality of CSRD. Furthermore, the results show that some characteristics of corporate governance like board size (quality and quantity) and the existence of a board social responsibility committee have a positive relationship with the quality of CSRD. However, increasing the number of non-executive executives may not necessarily enhance the quantity or quality of information disclosure.

In examining social responsibility and financial performance in the Tehran Stock Exchange, Noroush et al. (2017) showed that companies have a better social responsibility in terms of each of the indices of organizational transparency, socio-economic sustainability, humanitarian responsibility and good corporate governance and get higher profitability. Additionally, they showed that companies' profitability in terms of return on assets leads to their level of social responsibility.

Amir Hosseini and Ghobadi (2016) studied reporting on social responsibility, financial performance and institutional ownership. Firstly, the relationship between CSR and financial performance was examined and then the relationship between CSR and institutional ownership was examined with the mediating effect of financial performance. The results show the effect of the mediating variable of financial performance on the relationship between social responsibility and institutional ownership.

In a study entitled “Examining the study of the moderating role of the variable importance of social responsibility on the relationship between social responsibility and organizational commitment,” Mortazavi et al. (2010) argued that social responsibility is recognized as one of the most important elements of the philosophy of organizations. In this regard, the food industry was selected as the study population, which was done with the participation of 105 members in the form of a statistical sample and the use of a questionnaire to collect data. The results stress the significance of social responsibility and its observance by organizations can have a positive function on the performance of organizations in a way that significantly affects the organizational commitment of employees.

In a study entitled “The role of cultural managers in promoting social responsibility,” Royaee and Mehrdoust (2009) stated that CSR has been a sensitive and significant issue in recent years and is a key factor in the survival of any organization. As accountable organizations, leading organizations must express their commitments to social responsibility through their values and ensure that these commitments flow throughout the organization and thus the responsibility to be transparent and accountable to their stakeholders for their performance. Social acceptance will have mutual benefits for them so that both the organization benefits from its more ethical and coherent approach and the community and stakeholders will have a better view of the organization's performance and strengths.

Babajani and Foroughi (2002) conducted a study entitled “Assessing the accountability of the accounting system to the social responsibility of for-profit units.” Using the Delphi method, the study identified 8 important and main factors as acceptance criteria to enhance the level of social responsibility accountability of the accounting and financial reporting system of Iran's for-profit units, and according to the accepted criteria and based on the scores assigned by Delphi Group members given the status quo of each of these factors in the current accounting and financial reporting system of Iran's profit units, it was determined that the current accounting and financial reporting system of Iran's profit units does not have the expected capabilities to meet social responsibility.

The most common concept of disclosure of social responsibility was expressed by Carroll (1991). Carroll distinguished between four types of economic, legal, moral, and humanitarian responsibilities. He distinguished economic responsibility (jobs, wages and services), legal responsibility (obeying the rules and having a role in obeying the rules of the game), moral responsibility (being moral and doing what is right, just and fair), and humanitarian responsibility (contributions and humanitarian option), and thus achieved a general model in this area. Regarding this, the Committee on Sustainable Development of Global Trade defines the disclosure of social responsibility as the commitment of companies to participate in enhancing the development of a sustainable economy and their employees and their families and the community. Many studies have been done on the factors affecting it, given the significance of disclosing social responsibility, which has been mainly in developed and western countries. However, in developing countries, like Iran, little attention has been paid to this concept and the factors affecting the structure of voluntary disclosure of social activities are ambiguous. The present study tries to first explain the factors affecting the disclosure of social responsibility by examining the existing theoretical foundations and then identify these factors in Iranian companies.

Research Methodology

Size of the company and social responsibility disclosure

The existing theoretical foundations show that the size of the company affects the disclosure of social responsibility (Dickers & Peterson, 1977; Adams et al., 1998). The results show that larger companies disclose more information related to social responsibility activities (Aras et al., 2010; Siregar and Bachtiar, 2010). Porwal and Sharmas (1991) reported that larger firms in both the public and private sectors had higher disclosures of social responsibility than smaller firms (Kansal et al., 2014).

It is understandable that larger companies have more social responsibility disclosures. This is because they tend more to attract public attention and, therefore, are under more pressure to offer social responsibility activities. Thus, the public attention to these companies forces them to commit to social activities and to gain public trust, try to properly inform and disclose these activities. Moreover, larger companies may have more shareholders supportive and interested in the company's social activities (Kahn et al., 1987).

Crisóstomo et al. (2011) argued that the companies try to attract attention and be more visible in the supply chain structure to legitimize their business activities and reduce government interference in these activities (Purushotahman et al., 2000) and create more infrastructure through available cash flow (Crisóstomo et al., 2011).

Hypothesis 1: The company assets have a significant effect on the CSR level.

Hypothesis 2: The level of company sales has a significant effect on CSR level.

Ownership structure and disclosure of social responsibility

The ownership structure shows the composition of the company shareholders, which can potentially affect the managers' decisions and behavior. The conflict in the interests of managers and owners is clearly understood, which is due to the different goals so that each party tries to maximize their interests. However, the dispersion of owners in joint-stock companies has made their relationship with the company difficult to visualize in the form of traditional ownership. The minority shareholders of these companies do not have much salary in other cases, except for the right to receive a part of the company's income and interests according to their share. This shows the conflict between the owners and managers, the result of which is nothing but the violation of shareholders' property rights. Bamber and Paolin (2008) found that the concentration of ownership makes the company reluctant to enhance discretionary disclosure, as major owners can get information directly from the company. However, for minority shareholders, the only source of information is the company's financial statements. At the same time, other owners have the potential to affect corporate financial reporting practices. Regarding this, institutional owners have the task of receiving information and transmitting it to minority shareholders and have effective monitoring tools according to the type and percentage of ownership. Here, given their political support and willingness to protect government interests in the companies, state-owned owners affect managers' decisions and behaviors (Bamber and Paolin, 2008).

Hypothesis 3: Institutional ownership has a significant effect on the CSR level.

Hypothesis 4: Government ownership has a significant effect on CSR level.

Hypothesis 5: Concentration of ownership has a significant effect on CSR level.

Corporate governance structure

The governance structure of a company is significant in different aspects defined in the first place in terms of the alignment of the interests of representatives and owners. Accordingly, if the interests of managers and owners are equal or close to each other, many agency conflicts are resolved potentially affecting different aspects of corporations and the capital market. Among the cases that may be affected by the governance structure is the structure of financial reporting that can explain the interests of other groups in the company (Bamber and Paolin, 2008). Thus, the effect of governance structures on the situation and financial efficiency is an issue increasingly in the focus of researchers and the subject of many studies in recent years.

Hypothesis 6: The size of the board has a significant effect on the CSR level.

Hypothesis 7: The independence of the board of directors has a significant effect on the CSR level.

Variables and the operational definition of them

Dependent variable

A dependent variable is a variable that the researcher tries to describe or predict its variability. In other words, it is a key variable considered a critical issue for the study. The above variables are dependent, as stock price, strengths of CSR, cost of capital, operating cash flow and the current value of the company have a significant effect in interpreting the results of this study.

CSRD index (dependent variable)

Kansal et al (2014) corporate social responsibility disclosure index (CSRDI) has been used in the study, with 7 aspects of the disclosure and 111 indices.

1) Social development, 2) safety and innovation in products and services, 3) environment, 4) energy, 5) emissions of carbon and harmful gases, 6) emissions of carbon and harmful gases, 7) other activities related to social responsibility

The scoring method for each company for company disclosure indices is obtained using the following equation.

$$\mathrm{CSEEscore}_i(W) = \sum_1^j \sum_{i=1}^n d_{ij} \quad (1)$$

d: Company score for each of the disclosure indices presented in the study, which is based on a 5-point scale, is as follows.
0: if the desired index is not disclosed.
1: If one sentence or less than one sentence has been disclosed about the desired index.
2: if more than one sentence has been disclosed about the desired index.
3: If only one quantitative index (chart, table or values) is disclosed for the index.
4: If more than one quantitative index (chart, table or values) is disclosed about the desired index.
5: if the Riyal value has been disclosed about the desired index.

Independent variable

1) Size of the company: it is one of the special characteristics of companies and scholars have used various criteria to measure it. The present study has used the two criteria used in various studies (Abu and Ameer, 2011; Saleh et al., 2010) to measure this variable, which involves the natural logarithm of assets and sales of the company.

Size1Ln = (Assets)

The natural logarithm of assets

Assets = Assets

Size2 = Ln (Sales)

The natural logarithm of the company sales

Sales = Company sales

2) Ownership structure

Ownership structure has been considered from three aspects - institutional ownership, centralized ownership, and state ownership - in the present study.

IO= $\frac{\text{The number of shares owned by institutional shareholders}}{total\ number\ of\ shares\ issued\ by\ the\ company}$

CO= $\frac{\text{The number of shares owned by the major shareholders}}{\prime\ \text{total number of shares issued by the company}}$

SO= $\frac{\text{The number of shares owned by state shareholders}}{a\ total\ number\ of\ shares\ issued\ by\ the\ company}$

3) Governance structure

In the present study, the governance structure has been examined in terms of board size and board independence 9. To estimate the size of the board of directors, the number of its members is considered. Moreover, its natural logarithm is used to standardize this variable and enter it into the regression model.

BRDSize =Ln (Board Number)

The independence of the board of directors is obtained from the following equation.

BRDIND= $\frac{\text{The number of non}-\text{executive members}}{number\ of\ board\ members}$

Variable test model

The general model for testing research hypotheses is as follows.

CSEEE it=β0+ β1 Size1 it+β2Size2 it+ β3IO it+β4CO it+ β5SO it+β6BRDSIZE it +β7BRDIND it +€ it

4) Data

Population and sampling

The research scope provides a framework for the researcher to study and test during that particular field and to have more reliability. The companies are the ones listed on the Tehran stock exchange, OTC and securities. The research period is from 2008 to 2017 for ten years.

The following criteria can be defined for application in elimination sampling and screening and a statistical sample can be extracted from it according to the research variables.

1) The company should be present on the stock exchange from 2008 to 2017

2) The end of the companies' fiscal year should be March 21 and there should

be no change in the fiscal year in the period examined.

3) The trading symbol of the company is active and does not have a trading symbol stop for more than 6 months in the year.

4) The shareholders' equity of the company should not be negative.

Hence, the sampling method was systematic elimination (screening) selected in accordance with the mentioned conditions of a number of statistical sample companies and their data used to test hypotheses. The research period was 10 years from 2009 to 2018.

The companies that did not provide the information needed to calculate the research variables were excluded from the population, and 127 companies were eventually selected as the population for the 10 years. Thus, the final sample size was 1270 years-company, used as panel data to test the hypotheses.

5) Research analysis

Descriptive statistics

Descriptive statistics related to the variables used in the hypothesis test model are presented in Table 1.

Table 1. Descriptive statistics of the variables

	CSRD index	Size of the company based on total assets	Size of the company based on sales level	Institutional ownership	Centralized ownership	Governmental ownership	Board size	Independence of the board
Symbol	CSEE	SIZE1	SIZE2	IO	CO	SO	BRDSIZE	BRDIND
Mean	10.88471	13.48826	13.29193	0.676083	0.544288	0.054753	0.443804	1.682942
Median	10.90745	13.41252	13.16811	0.751950	0.518500	0.000000	0.414286	1.609438
Max.	13.92399	19.9246	93622/18	0.989300	0.999800	0.953400	1.000000	1.945910
Min.	8,227020	8.641444	9.155462	0.000000	0.000000	0.000000	0.000000	1.609438
Standard deviation	1.068834	1.737364	1.450738	0.270741	0.177883	0.163432	0.224044	0.139084
Skewness	0.026701	0.451399	0.620234	-1.216404	0.415372	3.643296	-0.189887	1.362767
Kurtosis	2.741546	3.565650	4.109865	3.539968	2.987495	16.27911	2.891216	2.857133
Number of observations	1270	1270	1270	1270	1270	1270	1270	1270

The results presented in Table 1 show that the standard deviation obtained for the variable of CSRD index is less than the average of this variable. This shows the relative normality of the distribution of this variable (as a dependent variable) and the absence of sharp fluctuations in it, which is critical in analyzing its behavior through regression models. In this regard, the median of this variable is very close to its mean, which can be a sign of its skewness and low kurtosis, the absence of sharp fluctuations in data distribution. The findings on independent variables show that the size of the company based on market value had the highest mean. According to the findings, institutional owners had the highest share of ownership in the sample companies during the research period and the lowest share belonged to governmental shareholders.

Fitting the initial regression model

To test the hypotheses, first, the initial regression model is fitted where the disclosure score of CSR is considered as a dependent variable and a function of the factors affecting it. The model is as follows.

CSEEE it=β0+β1Size1 it+β2Size2 it+β2IO it +β3CO it + β4SO it +β5BRDSIZE it +β6BRDIND it +€ it

First, the appropriate regression model is identified through statistical tests to fit the regression model. Chow and Hausman's tests are used for this purpose. Chow test helps choose the best estimation method between the pooled method and the panel method.

Table 2. Chow test results for the initial regression model

Chow f statistic	Sig.	Conclusion
4.858	0.000	Model is panel

As the significance level of the test is lower than the error level (0.05), Hypothesis H0 above is rejected. Accordingly, the use of the panel method to fit the regression model is recommended.

Table 3. Hausman test results for the initial regression model

Hausman statistic	Sig.	Conclusion
74.459	0.000	The model has fixed effects

According to the results, the significance level of the Hausman test is lower than 0.05, so the use of the fixed effects method to fit the regression model is recommended. Table 5 shows the results of fitting the above model to the fixed effects by panel method.

Table 4. The results of statistical analysis of the initial model

Variable	β coefficient	t statistic	Sig.
C	4.732367	5.190804	0.0000
SIZE1	0.153305	2.730793	4.006
SIZE2	0.953663	10.65567	0.0000
IO	0.232693	1.274244	0.2028
CO	0.657035	40185/10	0.0000
SO	0.021397	0.104017	0.9172
BRDSIZE	0.385989	1.782152	0.0750
BRDIND	0.033260	0.185009	0.8533
Coefficient of determination: 0.481	Durbin-Watson Statistics: 2.266		The significance level of the F statistic: 0.0000
The adjusted coefficient of determination: 0.417	F statistic: 7.477		

The adjusted coefficient of the regression model is 0.417 and shows that this model can explain 41.7% of the changes in the score of the disclosure of social responsibility of the sample companies through independent and control variables. Moreover, the results show that the Durbin Watson statistic is from 1.5 to 2.5 and thus, regression model errors and the lack of autocorrelation between errors, are accepted as one of the basic regression assumptions about the fitted model. The result of regression analysis of variance (ANOVA) is decided based on F-statistic. The significance level of the F statistic for the model is less than the test error level ($\alpha = 0.05$) and as a result, the H0 hypothesis is rejected and the estimated regression is statistically significant and the relationships between the research variables are linear. As the basic assumptions of regression are valid for the fitted model, one can conclude about the coefficients of each of the independent variables and decide on the hypotheses.

Research Findings

The results of the first and second hypothesis tests

According to the results, the estimated coefficient for the variable SIZE1, showing the role of the size of the company variable based on total assets, is 0.153 with a significance level of 0.006, which is less than 0.05. This indicates that this variable has had a positive role in the CSRD of the sample companies during the research period. Furthermore, the coefficient of variable size of the company based on sales revenue is positive and significant. In other words, the larger companies have done better in disclosing social responsibility. These are in line with the claims made in the first and second hypotheses, and this hypothesis is accepted at a 95% confidence level.

Results of testing the third, fourth and fifth hypotheses

According to the results, the estimated coefficient for the CO variable, showing the role of ownership concentration, is 0.657 with a significance level of 0.000, less than 0.05. This indicates that this variable has had a positive role in disclosing the social responsibility of the sample companies during the research period. However, the estimated coefficient for IO and SO, showing the role of institutional and government ownership, was statistically insignificant. According to the above, with the concentration of ownership, the level of corporate social disclosure has increased. These are in line with the claim made in the fourth hypothesis, and this hypothesis is accepted at the 95% confidence level. Moreover, the third and fifth hypotheses are rejected at the 95% confidence level.

The results of testing the sixth and seventh hypotheses

According to the results, the estimated coefficient for the BRDSIZE, showing the role of the size of the company board of directors, is 0.385 and with a significance level of 0.075, which is higher than 0.05. This shows that the variable did not have a role in disclosing the social responsibility of statistical sample companies during the research period. At the same time, the coefficient of independence of the board of directors is insignificant. These contradict the claims made in the sixth and seventh hypotheses, and this hypothesis is rejected at the 95% confidence level.

Examining the unconfirmed variables of the initial model by stationarity test

A stationarity test is a test through which the behavior of each of the independent variables of the regression model, regardless of the involvement of other variables, can be determined and concluded whether it is effective or ineffective on the dependent variable.

The null hypothesis of the test shows that the coefficient of the variable i is zero. In other words, the variable is ineffective. The results of the Wald test for insignificant variables of the initial model are as follows.

Table 5. Stationarity test for unverified variables of the initial model

	Symbol	Levin Lin and Chu test		Result
		Test statistic	Sig.	
Institutional ownership	IO	1.623	0.202	The variable is stationary
Governmental ownership	SO	0.010	0.917	The variable is stationary
Board size	BRDIND	3.167	0.075	The variable is stationary
Independence of the board	BRDSIZE	0.034	0.853	The variable is stationary

As the significance level of the test for all the variables is higher than 0.05, the H0 hypothesis is accepted and one can conclude that the above variables did not play a role in the regression model and the dependent variable. According to the above results, the final model can be fitted.

Fitting the final model and examining its validity

After performing significance and stationarity tests, the most effective factors in the dependent variable were identified and considered for use in the final model. In this section, the final research model, intended to predict and explain the level of CSRD, is fitted and its validity is measured. The appropriate regression model is identified first, through statistical tests to fit the regression model. Chow and Hausman's tests are used to this end. Chow test helps choose the best estimation method between the pooled method and the panel method. Hence, first, the regression model based on the combined method was fitted and then the Chow test was performed on the fitted regression. The hypotheses related to this test are as follows.

H0: Regression method is combined.

H1: The regression method is a panel.

Table 6. Chow test results for the final regression model

Chow f statistic	Sig.	Conclusion
11.570	0.000	The model is a panel

As the significance level of the test is lower than the error level (0.05), Hypothesis H0 above is rejected. Accordingly, the use of the panel method to fit the regression model is recommended.

In models based on panel data, it is necessary to test the method of estimation based on randomness or fixed effects and select the most appropriate method to fit the model. In this regard, first, the regression model is fitted based on random effects and then the appropriateness of the applied method is checked through the Hausman test. The statistical hypotheses related to the Hausman test are as follows.

H0: Regression is based on random effects.

H1: Regression is based on fixed effects.

Table 7. Hausman test results for the final regression model

Hausman statistic	Sig.	Conclusion
26.055	0.000	The model has fixed effects

According to the results, the significance level of the Hausman test is lower than 0.05, so using the fixed effects method to fit the regression model is recommended.

Table 8. The results of statistical analysis of the final model

Variable	β coefficient	t statistic	Sig.
C	5.764439	7.495407	0.0000
SIZE1	0.153233	2.794143	0.0053
SIZE2	0.967359	11.04620	0.0000
CO	0.660711	10.55739	0.0000
Coefficient of determination: 0.478	2.264		F statistic: 7.874
The adjusted coefficient of determination: 0.417	The significance level of the F statistic: 0.0000		

The results of the statistical analysis of the validity of the regression model are given in the second part of the table above. The adjusted coefficient of the regression model is 0.417 showing that this model managed to explain 41.7% of the changes in the disclosure points of social responsibility of statistical sample companies through independent and control variables. Moreover, the results show that the Durbin Watson statistic is from 1.5 to 2.5 and therefore, there are no strong correlations between the regression model errors and the lack of autocorrelation between the errors as one of the basic regression assumptions about the fitted model, which will be accepted. The results of regression analysis of variance (ANOVA), decided based on F-statistic, for the fitting patterns in the first hypothesis test, the last two columns of Table 8 are given. The statistical hypotheses related to F-statistic analysis are as follows.

H0: $\beta i = 0$ the regression pattern is not significant

H1: $\beta i \neq 0$ the regression pattern is significant

The significance level of the F statistic for the model is less than the test error level (α = 0.05), so the H0 hypothesis is rejected and the estimated regression is statistically significant and the relationships between the variables are linear.

Conclusion

The research hypotheses were tested using multiple regression models. The results of the hypothesis testing are summarized in the table below.

Table 9. Summary of the results of testing the hypotheses

Row	Summary of the hypothesis	Independent variables	Independent variable coefficient	Sig.	Results
1	The assets of the company have a significant effect on the level of CSR.	Company assets	0.153305	0.0064	Confirmed
2	The level of sales of the company has a significant effect on the level of CSR.	Company sales	0.953663	0.0000	Confirmed
3	Institutional ownership has a significant effect on the CSR level.	Institutional ownership	0.232693	0.2028	Rejected
4	Governmental ownership has a significant effect on the CSR level.	Ownership centralization	0.657035	0.0000	Confirmed
5	Ownership concentration has a significant effect on the CSR level.	Governmental ownership	0.021397	0.9172	Rejected
6	Board size has a significant effect on CSR levels.	Board size	0.385989	0.0750	Rejected
7	The independence of the board has a significant effect on the CSR level.	Independence of the board	0.033260	0.8533	Rejected

Based on the results, the size of the company is a determining factor in CSRD in Iran. Its role is positive and both criteria have played a significant role. According to the results about the ownership structure, the disclosure of social responsibility was higher in companies with a centralized ownership structure. However, the governance structure has not had an effective role in disclosure. The size of the company is a determining factor in CSRD in Iran. The role of this factor is positive and both criteria have had a significant role. In other words, larger companies have been more successful in CSRD. It is understandable that larger companies have more social responsibility disclosures, which is because they are more inclined to attract public attention and are under more pressure to offer social responsibility activities. Thus, the public attention to these companies makes them committed to social activities and to gain public trust, trying to properly inform, and disclose these activities. Moreover, larger companies may have more shareholders who support and are interested in the company's social activities.

The ownership structure is a determining factor in disclosing CSR in Iran. Here, according to the results, the concentration of ownership has bettered the disclosure of social responsibility. According to the theoretical basics, the presence of major owners in the company potentially enhances the dissemination of information, and this is based on the agency theory to protect the interests of minority shareholders.

The results are in line with those of Fang et al. (2019) stating that large corporations in the center of special attention are different groups in the community, therefore under more pressure to disclose social responsibility to legalize the activities of this group of companies. Thus, they found a positive and significant relationship between CSR and the size of the company. Additionally, the results of this study are not in line with those of Mohammad Bassam and Michel (2018) where the percentage of independent (non-executive) managers on the board, the duality of CEO and chairman, manager age, board ownership and the percentage of significant shares that institutional shareholders have a significant negative effect on CSR level. This is because the ownership structure shows the composition of the company shareholders, which can potentially affect managers' decisions and behavior. The conflict in the interests of managers and owners is clearly understood and this conflict is due to the different goals so that each party tries to maximize their interests. However, the dispersion of owners in joint-stock companies has made it hard to visualize their relationship with the company in the form of traditional ownership. The analysis showed that the centralization of ownership makes the company want to enhance discretionary disclosure, as major owners can get information directly from the company. For minority shareholders, however, the only source of information is the company's financial statements. At the same time, other owners have the potential to affect corporate financial reporting practices. According to the type and percentage of their ownership, they have effective monitoring tools and leave their effects on the decisions and behavior of managers and pay more attention to this issue to disclose social responsibility. According to the results of the study, the companies listed on the Tehran Stock Exchange are recommended to consider the effects of the dimensions and indices of CSR to create transparency and appropriate accountability to stakeholders and increase their legitimacy with them and pave the way for achieving this important goal by forming an independent unit or committee in formulating their strategy and planning of social responsibility.

Additionally, the Stock Exchange Organization and the Standard Development Committee of the Auditing Organization and other regulatory bodies are recommended to oblige the companies to submit a social responsibility report using an integrated approach and report it separately (independently) or modify the framework and content of board activity reports. Furthermore, the results were not in line with those of Adnan et al. (2018) who found a positive relationship between corporate governance and a negative relationship between national culture and social responsibility reporting. Indeed, due to economic factors and corporate governance and corporate characteristics on disclosing CSR to investment company activists, financial analysts and potential and actual investors of the stock exchange are recommended to obtain comprehensive information about these factors by accurate evaluation of the quality of corporate social disclosure through studies and careful review of the annual reports of companies and other information sources. Moreover, based on the information provided, evaluate the quality of CSRD and include it in their decisions to limit the use of companies' financial reports that according to the historical cost, in the current inflationary conditions, may potentially affect the results of the research.

It is recommended that future studies should focus on the relationship between CSR and the timeliness of financial information, the CEO's ability to report on CSR, and the relationship between other assets (managerial ownership and foreign stock).

Rahavard Novin software is used in collecting some of the information in the study, which may contradict the information contained in the financial statements in some cases.

Some variables are inflated due to inflation. Considering the inflation index in this study is time-consuming, costly and in some cases impossible.

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References

Adams, C.A., Hill, W.Y. and Roberts, C.B. (1998), "Corporate social reporting practices in western Europe: legitimating corporate behavior?", The British Accounting Review, Vol. 30 No. 1, pp. 1-21.

Adnan, Nadia & Nordin, Shahrina & Bahruddin, Mohamad & Ali, Murad. (2018). How trust can drive forward the user acceptance of the technology? In-vehicle technology for an autonomous vehicle. Transportation Research Part A: Policy and Practice. 118. 819-836. 10.1016/j.tra.2018.10.019.

Abu, B.A., & Ameer, R. (2011).Readability of corporate social responsibility communication in Malaysia.Corporate Social Responsibility and Environmental Management,18(1), 50–60

Amir Hosseini, Zahra, Ghobadi, Masoumeh. (1395). Reporting on social responsibility, financial performance and institutional ownership. Management Accounting, (2016), 9 (28), 55-66.

Aras, Guler & Aybars, Asli & KUTLU FURTUNA, Ozlem. (2010). Managing corporate performance: Investigating the relationship between corporate social responsibility and financial performance in emerging markets. International Journal of Productivity and Performance Management. 59. 229-254. 10.1108/17410401011023573.

Babajani, Jafar, Foroughi, Dariush. (1382). Assessing the accountability of the accounting system to the social responsibility of for-profit units. Empirical Studies in Financial Accounting, (2009), 1 (2), 39-60.

Badulescu, Alina & Badulescu, Daniel & Saveanu, Tomina & Hatos, Roxana. (2018). The Relationship between Firm Size and Age, and Its Social Responsibility Actions—Focus on a Developing Country (Romania). Sustainability. 10. 805. 10.3390/su10030805.

Bassam, Mohammad & Suwaidan, Mishiel. (2018). Board composition, ownership structure and corporate social responsibility disclosure: the case of Jordan. Social Responsibility Journal. 15. 10.1108/SRJ-11-2017-0225.

Brammer, S. and Pavelin, S. (2008), "Factors influencing the quality of corporate environmental disclosure", Business Strategy and the Environment, Vol. 17 No. 2, pp. 120-136.Castelo, M. & Lima, L. (2006).Corporate social responsibility and resource-based perspectives, Journal of Business Ethics, 69, PP: 111-132

Castelo, M. & Lima, L. (2006).Corporate social responsibility and resource-based perspectives, Journal of Business Ethics, 69, PP: 111-132

Carroll, Archie. (1991). The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational Stakeholders. Business Horizons. 34. 39-48. 10.1016/0007-6813(91)90005-G.

Crisóstomo, V. L., Freire, F. D. S., & Vasconcellos, F. C. (2011). Corporate social responsibility, firm value and financial performance in Brazil. Social Responsibility Journal, 7(2), 295–309.

Dierkes, M., & Preston, L. E. (1977). Corporate social accounting and reporting for the physical environment: A critical review and implementation proposal. Accounting, Organisations and Society, 2(1), 3–22.

Fang, Yi. (2019). Corporate Social Responsibility Risk and Audit Opinion. American Journal of Industrial and Business Management. 10. 1-18. 10.4236/ajibm.2020.101001.

Foroughi, D., Mir Shams Shahshahani M, Pour Hossein, S. (1387). "Managers' Attitudes Towards Disclosure of Social Accounting Information: Companies Listed on the Tehran Stock Exchange". Accounting and Auditing Reviews, Volume 15, Number 52, Summer 2008, pp. 70-55.

Haniffa, R.M. and Cooke, T.E. (2005), "The impact of culture and governance on corporate social reporting", *Journal of Accounting and Public Policy*, Vol. 24, pp. 391-430.

Harrodrosario, A., del Mar Gálvez-Rodríguez, M. and del Carmen Caba-Pérez, M. 2017, 'Determinants of corporate social responsibility disclosure in Latin American companies: an analysis of the oil and gas sector', Comparative Perspectives on Global Corporate SocialResponsibility, IGI Global, Hershey, PA, pp. 165-184.

Gray, R., Javad, M., Power, D.M. and Sinclair, C.D. (2001), "Social and environmental disclosure and corporate characteristics: a research note and extension", Journal of Business Finance &Accounting, Vol. 28 Nos 3-4, pp. 327-356.

Kahn, Barbara. (1987). A theoretical model of inter purchase times. Applied Stochastic Models and Data Analysis. 3. 93 - 109. 10.1002/asm.3150030205.

Kansal, Monika & Joshi, Mahesh & Batra, Gurdip. (2014). Determinants of corporate social responsibility disclosures: Evidence from India. Advances in Accounting.

30. 10.1016/j.adiac.2014.03.009.

Kofi & Mallikarjunappa, Oware Phd,, Thathaiah. (2018). Corporate social responsibility investment, third-party assurance and firm performance in India: The moderating effect of financial leverage. South Asian Journal of Business Studies. ahead-of-print. 10.1108/SAJBS-08-2018-0091.

Noroush & Heidari Kurd Zanganeh Gholamreza, Jafari Mohammad Hassan (1396). Social responsibility and financial performance in companies listed on the Tehran Stock Exchange. Economic Journal (bi-monthly review of economic issues and policies).Vol 17, (2017)Number (3 and 4): pp 53-78

Mandhachitara, R., & Poolthong, Y. (2011). A model of customer loyalty and corporate social responsibility. *Journal of Services Marketing*, *25*(2), 122-133. https://doi.org/10.1108/08876041111119840

Mortazavi, Saeed and Pour Azad, Nasser and Amir Razavi, Pegah and Sadeghi Moghadam, Masoumeh. (1389). Journal of Social Sciences, the role of moderating the variable of the importance of social responsibility on the relationship between social responsibility and organizational commitment; Case study: Mashhad food industry companies,(2010), volume (7), number 2, issn (2008-1383), pages (193—217), numpages (24)

Porwal, L. S. and Sharma, N. (1991), “Social Responsibility Disclosure by Indian Companies”, The Chartered Accountant (India), Vol. XXXIX, No 8, p. 630-634.

Purushotahman, M., Phil, H., & Ross, T. (2000). Determinants of corporate social reporting practices of listed Singapore companies. An Accounting Review, 12(2), 101–103.

Sánchez, Isabel & Hussain, Nazim & Martínez-Ferrero, Jennifer. (2019). An empirical analysis of the complementarities and substitutions between effects of ceo ability and corporate governance on socially responsible performance. Journal of Cleaner Production. 215. 10.1016/j.jclepro.2019.01.130.

Saleh, M., Zulkifli, N., & Muhamad, R. (2010).Corporate social responsibility disclosure and its relation to institutional ownership: Evidence from public listed companies in Malaysia.Managerial Auditing Journal,25(6), 591–613

Siregar, S., & Bachtiar, Y. (2010). Corporate social reporting: Empirical evidence from Indonesia Stock Exchange. International Journal of Islamic and Middle Eastern Finance and Management, 3(3), 241–252

Royaee, R., and Mehrdoust, H. (1388). Investigating the role of cultural managers in promoting social responsibility (Case study: Single post managers of the Radio and Television of Iran). Journal of Social Sciences,(2009), 3 (3), 43-59. https://www.sid.ir/fa/journal/ViewPaper.aspx?id=118619

Tan, J.S., Lin, F., Tanouye, M.A. (2004). Potassium bromide, an anticonvulsant, is effective at alleviating seizures in the Drosophila bang-sensitive mutant bang senseless. Brain Res. 1020(1-2): 45--52.

Walker BH, Meyers JA. 2004. Thresholds in ecological and social-ecological systems: a developing database.Ecol. Soc.9(2):3

Webb, K.A, Cahan, S.F. and Sun, J. (2008), "The effect of globalization and legal environment on voluntary disclosure", *International Journal of Accounting*, Vol. 43 No.3, pp. 219-245.

Werner, E. E. (2000). *Protective factors and individual resilience.* In J. P. Shonkoff & S. J. Meisels (Eds.), *Handbook of early childhood intervention* (p. 115–132). Cambridge University Press. https://doi.org/10.1017/CBO9780511529320.008

Xiao, J.Z., Gao, S.S., Heravi, S. and Cheung, Y.C.Q. (2005), "The impact of social and economic development on corporate social and environmental disclosure in Hong Kong and the U.K.", *Advances in International Accounting*, Vol. 18, pp. 219-243.

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