

The effect of social responsibility disclosure components on company value creation

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Abstract

Social responsibility is a commitment causing managers of private sector business organizations to consider the whole community's well-being in their profit-making decisions. Organizations' performance evaluation criteria have evolved, and social and environmental responsibilities have become necessary for the long-term activities of organizations. This research uses Delphi forecasting methods, AHP ranking, questionnaires, and PLS through a comprehensive framework to analyze the effect of social responsibility disclosure components on company value creation. A content analysis was performed on the board reports of Iranian companies to examine the current status and the social dimension disclosure level in Iranian companies. To this purpose, a sample of active and large companies of the Tehran Stock Exchange, including about 106 cases from the energy, refining, and petrochemical industries, have been used. The results obtained from the path analysis and the desired indicators of the structural model fit supported the significance, explanation, and proper justification of corporate responsibility's social dimension disclosure components. In addition, a significant relationship was found between social responsibility disclosure and value creation.

Keywords: corporate social responsibility, social dimension components and indicators, disclosure level assessment, corporate value creation
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1 Introduction

Companies must pay to fulfill their duties towards all stakeholders and create a suitable mentality for them. They believe satisfaction absorbs the community members and improves their performance. Continuous corporate commitment to social responsibility in all dimensions significantly affects financial performance. Social responsibility encourages the business unit to use less energy and materials, produce less waste, help the environment, and so on [7]. Therefore, corporate social responsibility contributes to the long-term success of companies, leads to economic growth, increases the company's competitiveness, and improves financial performance [8]. Accordingly, the following equation is presented:

$$SR = \int \int CS + EE_{t-1} \quad (1.1)$$

SR: Social responsibility

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CS: Community satisfaction

EE: Economic efficiency

Corporate social responsibility aligns the company goals with employee motivations to reduce costs and increase productivity [2]. The government provides financial or non-financial support and incentives to companies observing their social responsibilities. Similarly, people support these companies, which can improve the company's competitive image and affect its financial performance [11]. In addition, shareholders tend to invest in companies observing social responsibilities. Financial managers must maintain and increase the company's value. The effect of social responsibility on the company's value is calculated using the following equation:

$$\int \text{value of the company} = \sqrt[n]{ES_i^n + CS^n + IC_i + \sum C} \quad (1.2)$$

VC: value of the company

ES: Employee Satisfaction

CS: Customer Satisfaction

IC: Improve Communication

C: Competition

Companies can be evaluated and valued from different perspectives, amongst which market value is very important to managers and shareholders. It should be noted that important things for investors and shareholders are not necessarily important for other persons and groups, including creditors, government, banks, economists, and other groups. In other words, different people and groups evaluate the company from their perspectives.

2 Problem description

Today, the role of business entities has drastically changed, and they are expected not only to increase their profits but also to be responsive to and valuable to the society they interact with. There is an interconnected and two-way relationship between the business unit and society. Any decision and movement in a society's sector has direct effects within the same sector and direct and indirect, hidden and obvious, tangible and intangible effects in all other society's sectors, and leads to a series of continuous actions and reactions in all the society's levels and layers [4]. These effects may realize later, but they will realize eventually. Therefore, an organization's performance affects society, and similar good or bad effects will return to themselves later.

$$CS = \sum_{i=1}^n EI + PP_t + S + e^{-i\omega t} \quad (2.1)$$

CS: Community satisfaction

EI: Economy Improving

PP: Public policies

S: Society

$e^{-i\omega t}$: Prediction error

Danko et al. [3] claim that corporate social responsibility is not limited to large companies, and it sounds necessary to many companies. Corporate responsibility toward society is useful for the business unit and society, and a better understanding of its potential benefits can increase companies' returns on investment. These benefits include increased sales and customer loyalty [7]. Observing social responsibility will show a favorable mental image of the company to customers, investors, and suppliers and increases customer loyalty. Social responsibility leads to customer commitment through the following factors:

$$\text{Customer Commitment} = \int \text{Health and safety} + \text{matching}_{t+1} + \text{price reduction}_t + e^{-i\omega t} \quad (2.2)$$

Torres et al. [9] showed that customers tend to buy from companies observing their social responsibility. Hiring new employees and maintaining existing ones are advantages of corporate social responsibility. Social responsibility

facilitates hiring new employees and retaining experienced employees for a sufficient period, which are necessary for the business unit's success [10]. Government support is the other benefit of social responsibility because philanthropic organizations observing their social responsibility commitments are less likely to face lawsuits from regulators, including the government or tax auditors.

Financial managers should maintain and increase the company value [7]. There are different perspectives to evaluate and value companies, amongst which the share value is significant to managers and shareholders. Essential things for investors and shareholders are not necessarily important for other persons and groups, including creditors, government, banks, economists, and other groups. In other words, different people and groups evaluate the company from their perspectives.

Managers and investors consider the company valuation as necessary in their planning. The valuation shows the effect of strategy and financial structure on the market value of companies' shares. Investors to buy and sell a company's securities need to know their market value. A firm, to maximize the wealth of its shareholders, must operate in a way to increase investors' demand for the company's shares and other securities. Firm value can be calculated as follows:

$$\text{Firm Value} = BV_0 + \sum \frac{RI_t}{(1+r)^t} \quad (2.3)$$

BV: Book value of assets

RI: Return on investment

r: Interest rate

Higher demand increases the price of securities in the market and, as a result, the shareholders' wealth. Therefore, managers determining the value of securities need to consider important variables or factors from investors' perspectives. Another critical point is that they should identify how the value of financial assets is determined; of course, these items are determined in the value determination process.

3 Research questions

3.1 The main question

Is there a significant relationship between the identified and ranked social responsibility disclosure components and the value creation of companies accepted on the stock exchange?

3.2 Sub questions

1. Is there a significant relationship between components of the environmental issues in the identified and ranked social responsibility disclosure and the value creation of companies accepted on the stock exchange?
2. Is there a significant relationship between components of products and services in the identified and ranked social responsibility disclosure and the value creation of companies accepted on the stock exchange?
3. Is there a significant relationship between components of human resources in the identified and ranked social responsibility disclosure and the value creation of companies accepted on the stock exchange?
4. Is there a significant relationship between customer components in the identified and ranked social responsibility disclosure and the value creation of companies accepted on the stock exchange?
5. Is there a significant relationship between components of society's responsibilities in the identified and ranked social responsibility disclosure and the value creation of companies accepted on the stock exchange?
6. Is there a significant relationship between energy components in the identified and ranked social responsibility disclosure and the value creation of companies accepted on the stock exchange?

4 The research hypotheses

4.1 The main hypothesis

There is a significant relationship between the identified and ranked social responsibility disclosure components and value creation in companies listed on Tehran Stock Exchange.

4.2 Sub-hypotheses

1. There is a significant relationship between the social responsibility disclosure components relating to identified and ranked environmental issues and the value creation in companies listed on Tehran Stock Exchange.
2. There is a significant relationship between the social responsibility disclosure components relating to identified and ranked products and services and the value creation in companies listed on Tehran Stock Exchange.
3. There is a significant relationship between the social responsibility disclosure components relating to identified and ranked human resources and the value creation in companies listed on Tehran Stock Exchange.
4. There is a significant relationship between the social responsibility disclosure components relating to identified and ranked customers and the value creation in companies listed on Tehran Stock Exchange.
5. There is a significant relationship between the social responsibility disclosure components relating to identified and ranked social responsibilities and the value creation in companies listed on Tehran Stock Exchange.
6. There is a significant relationship between the social responsibility disclosure components relating to identified and ranked energy and the value creation in companies listed on Tehran Stock Exchange.

5 Research methodology

The first part of the research is applied in terms of purpose and descriptive in terms of method, which aims to identify and prioritize the components of corporate social responsibility disclosure and provide a native model.

The second part of the research uses the regression model to analyze the effects of variables using secondary data extracted from the financial statements of companies listed on the Tehran Stock Exchange. The research employs deductive-inductive reasoning. It is post-event (semi-experimental), i.e., it analyzes the past and historical information, including companies' financial statements. In addition, it is a library and analytical-causal study and analyzes the panel data. This research is applied in terms of purpose and descriptive regression in methodology.

5.1 Statistical population

The statistical population, who have completed the questionnaire, includes all professional and academic people, managers, and experts on companies' disclosure and reporting in Razavi Khorasan. The Fuzzy Delphi method and the Fuzzy Analytic Hierarchy Process are applied to the data. A sample of about 106 active and large firms listed on the Tehran Stock Exchange from power, refining and petrochemical industries is used for the content analysis and level determination.

5.2 The theoretical research model

The structural equation modeling by PLS software was used to test the accuracy of the theoretical research model and calculate the coefficients. As a very general and powerful multivariate regression technique or a general linear model, it allows the researcher to test a set of regression equations simultaneously. Structural equation modeling is a comprehensive approach for testing the relationships between the observed and latent variables in hypotheses. It is the only multivariate analysis method using multiple regression analysis and factor analysis simultaneously.

Advantages like simple graphical appearance and simultaneous calculation of relationships between variables have contributed to the power of the structural equation method. As Hair states, none of the previous methods could simultaneously measure the model and calculate the causal relationships of the model. This method generally uses equations similar to multiple regression to reveal the internal relationships between variables. This research uses the structural equation method and PLS to answer the main research question.

6 Descriptive statistics of the research variables

The minimum and maximum values of the social responsibility disclosure variable (X) are equal to 1.88 and 4.75, respectively, and its mean and standard deviation are 2.9188 and 0.61359, respectively. The minimum and maximum values of the value creation variable (Y) equal 8.53 and 19.73, respectively, and its mean and standard deviation are 12.4464 and 1.47577, respectively.

Table 1: Descriptive statistics of the research variables

Variable	Symbol	Frequency	Min.	Max.	Average	SD	Variance
		Stat.	Stat.	Stat.	Stat.	SE	Stat.
Social responsibility disclosure	X	80	1.88	4.75	2.9188	0.06860	0.61359
Value creation	Y	96	8.53	19.73	12.4464	0.16500	1.47577

6.1 Elements' final weight

The final weight for the elements of each group was calculated by multiplying their local weight by the weight of their group's head (i.e., main factor), and the results are presented in Table 2.

Table 2: Prioritizing based on AHP

Main factors	Main factors' weight	Sub factors	Sub factors weight	Final time	Rank
Products and Services	0.128	Product quality/ISO	0.346	0.045	10
		Product safety and health	0.541	0.069	3
		Product development/market share	0.113	0.014	22
Customers	0.220	Responding to customer needs	0.461	0.101	2
		Measures regarding the health and safety of customers	0.539	0.119	1
Society Responsibilities	0.174	Mutual communication between managers and employees	0.251	0.043	11
		Insight, attitude, strategy and responsibilities of the board of directors and senior managers regarding CSR	0.320	0.056	4
		Corruption, bribery and money laundering	0.241	0.042	12
		Charitable gifts and services	0.189	0.033	14
Human resources	0.108	Employee morale and communication	0.474	0.051	6
		Policy disclosure and recruitment procedures	0.264	0.029	17
		Monthly salary/cash bonus and benefits	0.142	0.015	21
		Number of Employees	0.120	0.013	23
Environmental issues	0.140	Natural resources conservation	0.125	0.018	20
		Reducing harmful effects on biodiversity and its different types	0.217	0.030	16
		Pollution control	0.344	0.048	7
Economical	0.112	Recycling or waste prevention	0.315	0.044	9
		Production and labor productivity indicators of the company	0.411	0.046	8
		Company's role in meeting public needs	0.129	0.014	22
Energy	0.117	VAT paid on Products and services	0.460	0.052	22
		Modifying the consumption pattern and optimal use of resources	0.325	0.038	13
		Using new resources	0.182	0.021	19
		Energy conservation and saving	0.262	0.031	15
		Optimal energy consumption measures	0.231	0.027	18

7 Testing the research hypothesis

This section examines the hypotheses test using the PLS.

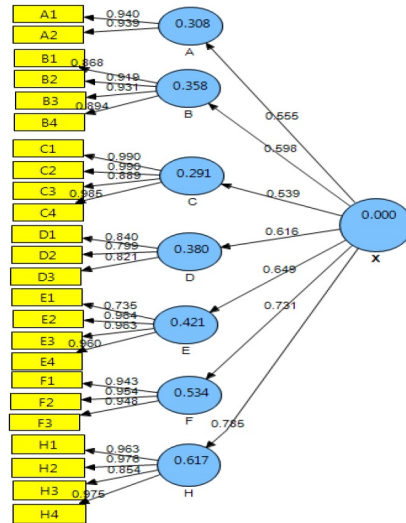


Figure 1: The structural model of the research hypothesis with factor loading coefficients

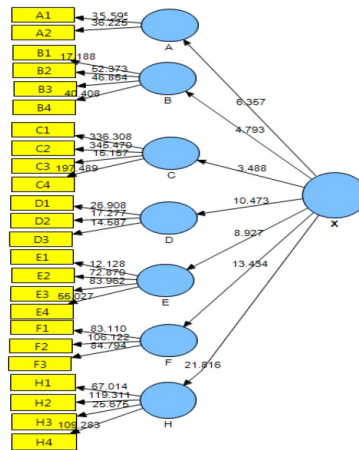


Figure 2: The structural model of the research hypothesis with significant coefficients

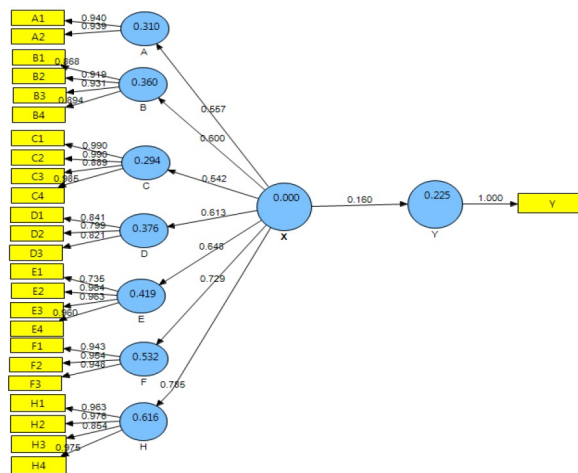


Figure 3: The structural model of the research hypothesis with factor loading coefficients

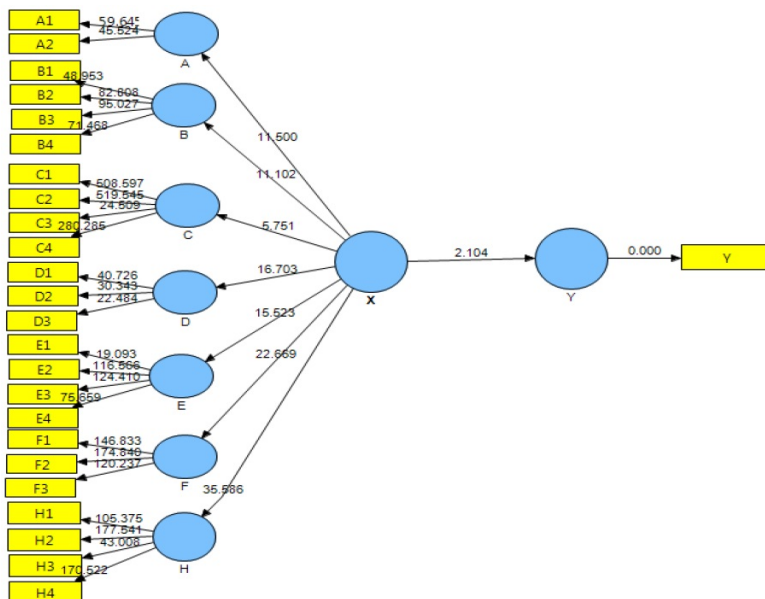


Figure 4: The structural model of the research hypothesis with significant coefficients

7.1 Model fit

The model fit is checked using the measurement model fit, the structural model fit, and the overall model fit.

7.2 The measurement models fit

Reliability:

The reliability of the research measurement model is examined using factor loading coefficients, Cronbach’s alpha coefficients, and composite reliability.

Factor load measurement

Table 3: Factor loading coefficients

Factor	Indicator	Factor loadings
Customers	A1	0.940
	A2	0.939
Responsibilities of society	B1	0.868
	B2	0.910
	B3	0.931
	B4	0.894
Environmental issues	C1	0.990
	C2	0.900
	C3	0.889
	C4	0.985
Products and Services	D1	0.841
	D2	0.799
	D3	0.821
Energy	E1	0.735
	E2	0.984
	E3	0.963
	E4	0.960
Economical	F1	0.943
	F2	0.954
	F3	0.948

Human resources	H1	0.963
	H2	0.978
	H3	0.854
	H4	0.975

The factor loading coefficients of the questions in the above table are more than the threshold value for the appropriateness of factor loading coefficients (i.e., 0.4), which shows the appropriateness of the values reported in the table.

7.3 Cronbach's alpha and composite reliability

According to the data analysis algorithm in PLS, followed by measuring the factor loadings of the questions, Cronbach's alpha coefficients and composite reliability results are calculated and reported in Table 4.

Table 4: The results of Cronbach's alpha and composite reliability for the hidden variables of the research

Latent variables	Symbol	Cronbach's alpha ($Alpha > 0.7$)	Composite Reliability ($CR > 0.7$)
Customers	A	0.867	0.938
Responsibilities of society	B	0.925	0.947
Environmental issues	C	0.874	0.882
Products and Services	D	0.757	0.861
Energy	E	0.927	0.951
Economical	F	0.904	0.934
Human resources	H	0.858	0.870

The suitable value for Cronbach's alpha and composite reliability is 0.7. Thus, the results reported in the above table confirm the appropriate reliability of the research variables.

7.4 Convergent validity

Convergent validity examines the extent to which each construct is correlated with the questions (indicators), and it is another criterion for examining the measurement model fit.

Table 5: Convergent validity results of the research latent variables

Latent variables	Symbol	Average variance extracted ($AVE > 0.5$)
Customers	A	0.883
Responsibilities of society	B	0.816
Environmental issues	C	0.930
Products and Services	D	0.673
Energy	E	0.830
Economical	F	0.899
Human resources	H	0.890

The appropriate value for AVE is 0.4. Thus, Table 5 confirms the appropriateness of this criterion for the latent variables and, as a result, the appropriateness of the research's convergent validity.

7.5 Structural model fit

7.5.1 Significant coefficients (t-values)

Figure 2 indicates that the t value of the research hypothesis is more than 1.96, which confirms its significance at the 95% confidence level.

7.5.2 R Squares (R^2)

This research uses R squares to examine the model's structural model fit and the latent endogenous (dependent) variables. It measures the effect of an exogenous variable on an endogenous variable, and three values of 0.19, 0.33, and 0.67 are considered the weak, medium, and strong values for R^2 . Figure 1 shows R square values for the endogenous constructs of the research. These values confirm the appropriateness of the structural model fit.

Table 6: The results of R square for endogenous constructs

Latent variables	Symbol	R^2
Customers	A	0.310
Responsibilities of society	B	0.360
Environmental issues	C	0.294
Products and Services	D	0.376
Energy	E	0.419
Economical	F	0.532
Human resources	H	0.616

7.6 Overall model fit

7.6.1 Goodness of fit

The goodness of fit (GOF) with three values of 0.01, 0.25, and 0.36 corresponding to weak, medium, and strong GOF is used to examine the overall model fit. The GOF is calculated using the following formula:

$$GOF = \sqrt{\overline{communalities} \times \overline{R^2}} \quad (7.1)$$

where, $\overline{communalities}$ refers to average communality by the research's latent variables.

Table 7: The research communality and R square values

Latent variables	Symbol	Communality	R^2
Customers	A	0.883	0.310
Responsibilities of society	B	0.816	0.360
Environmental issues	C	0.930	0.294
Products and Services	D	0.673	0.376
Energy	E	0.830	0.419
Economical	F	0.899	0.532
Human resources	H	0.890	0.616

Table 8: Results of the overall model fit

GOF	R^2	$\overline{communality}$
0.593	0.415	0.846

According to the results, GOF is equal to 0.593, indicating the overall model's very good fitness.

Table 9: Results of direct relationship and significant coefficients of sub-hypotheses of the research model

Hypothesis	Causal relationship between the research variables	Symbol	Path coefficient (β)	Significance (T-Value)	Test result
1	Social responsibility disclosure → value creation	X-Y	0.160	2.104	Confirmed

7.7 Research hypotheses

Hypothesis 1

H_0 : There is a significant relationship between social responsibility disclosure and value creation.

H_1 : There is no significant relationship between social responsibility disclosure and value creation.

Figures 1 and 2 show that the standardized coefficient (path coefficient) between social responsibility disclosure and value creation is $\beta = 0.160$, and the significance coefficient (t-statistic) between them is $t = 2.104$, which is more than 1.96. Therefore, hypothesis H_0 is rejected, hypothesis H_1 is confirmed, and there is a significant relationship between social responsibility disclosure and value creation. Thus, the first hypothesis is confirmed.

8 Results analysis

The components and indicators extracted from the research, the results of interviewing with more than 80 professional and academic people, managers, and experts of organizations relating to corporate disclosure and reporting, and the results of path analysis and the Delphi forecasting method prove the appropriateness of the above components and indicators. The regression coefficients of the path analysis model and their significance prove the appropriateness of all components so that it can be used as an efficient and comprehensive tool to determine the disclosure level of Iranian companies' social dimension performance. Some active and large companies of the Tehran Stock Exchange, including about 106 firms from the power, refining, and petrochemical industries, are used in content analysis and level determination. The social content analysis of the companies' board reports as a tool for disclosing the performance of the social dimension resulted in the following ranking for the current situation of companies listed on the Tehran Stock Exchange:

- Rank 1: measures of customers' health and safety with a relative weight of 0.119,
- Rank 2: responsiveness to the customers' needs with a relative weight of 0.101,
- Rank 3: product safety and health with a relative weight of 0.069,
- Rank 4: vision, attitude, strategy, and responsibilities of the board of directors and senior managers to CSR with a relative weight of 0.056,
- Rank 5: the paid value-added tax for products and services with a relative weight of 0.052,
- Rank 6: employees' morale and communication with a relative weight of 0.051,
- Rank 7: pollution control with a relative weight of 0.048,
- Rank 8: the company's production and labor productivity with a relative weight of 0.046,
- Rank 9: recycling or waste prevention with a relative weight of 0.044,
- Rank 10: product quality/ISO with a relative weight of 0.045,
- Rank 11: the degree of mutual communication between managers and employees with a relative weight of 0.043,
- Rank 12: bribery and money laundering with a relative weight of 0.042,
- Rank 13: modifying the consumption pattern and optimizing resources consumption with a relative weight of 0.038,
- Rank 14: charitable gifts and services with a relative weight of 0.033,
- Rank 15: energy conservation and saving with a relative weight of 0.031,
- Rank 16: reducing harm to biodiversity and its different species and natural resources, including forest and soil, with a relative weight of 0.030,
- Rank 17: disclosing recruitment and employment policies and procedures with a relative weight of 0.029,
- Rank 18: measures performed for optimal energy consumption with a relative weight of 0.027,
- Rank 19: using new resources with a relative weight of 0.021,
- Rank 20: preserving natural resources with a relative weight of 0.018,
- Rank 21: monthly salaries/cash bonus and benefits with a relative weight of 0.015,
- Rank 22: product development/market share, and the company's contribution to meeting public needs with a relative weight of 0.014,
- Rank 23: the number of employees with a relative weight of 0.013.

The research results showed a significant relationship between social responsibility disclosure and value creation. The company value is determined using Tobin's Q, the shareholders' added value, return on invested funds, and equity. The research findings suggest that companies with more attention to disclosure of social responsibility components achieve higher profitability, which is consistent with the results of previous research that social responsibility significantly affects financial performance and creates value for commercial enterprises [1, 5, 6]. In other words, company value creation and the change in the ratio of profit to assets, measured in terms of return on assets, encourage the company's managers to disclose social responsibility components further. Therefore, the company's value creation and changes in the ratio of profit to assets are important factors for managers when disclosing social responsibility components. The results show that more profitable companies pay more attention to the disclosure of social responsibility components. Hence, the main hypothesis of the research is confirmed, which is consistent with a significant relationship between the disclosure of social responsibility components and the company's value creation from previous

research. Thus, this research shows that companies' social responsibility disclosure affects value creation, consistent with Vidiananda and Saraswati [11] that a company's social responsibility affects its financial performance and value.

This study has practical suggestions such as creating the necessary platform for social indicators' disclosure in companies with the support and assistance of the senior management, institutional shareholders, and relevant officials to train and culturalize sustainable social performance in Iranian companies. Another suggestion is providing the necessary motivation and incentives in companies and developing appropriate requirements and regulations by related institutions on companies' reporting, including the stock exchange organization, with the cooperation of active social and cultural institutions to respond to society's expectations.

Theoretical suggestions for future research include implementing the designed model and periodic monitoring of the suggested indicators using objective and tangible documents and data of companies, quantitative and qualitative analysis of companies' social performance in various economic and industrial industries of the country. In addition, one can compare the situation and trend of companies' social performance in Iran and other similar countries regarding their economic, social, and cultural structures, especially in Islamic and developing countries.

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