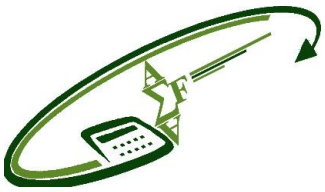
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Idiosyncratic Risk and Disclosure of Corporate Social Responsibility: Emphasizing the Role of Corporate Governance

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ABSTRACT

In this study, the impact of corporate social responsibility (CSR) disclosure on idiosyncratic risk has been investigated concerning three stakeholder theory, information asymmetry, and risk management. It also goes further and explores the impact of some corporate governance mechanisms such as ownership structure, board characteristics, and incentive contracts on this relationship. To achieve the research objectives, 142 companies from Tehran Stock Exchange were selected through the systematic elimination method from 2010 through 2018 and the research hypotheses were tested using a combined data regression model with an integrated approach. The results show that CSR disclosure; by increasing transparency, reducing uncertainty, stakeholder satisfaction, and positive market signaling; reduces idiosyncratic risk. It was also found that the ownership concentration and managers' remuneration by reducing CSR reporting lead to increased idiosyncratic risk, but government ownership, the duality of the CEO's duties, the board independence and the managers' equity decrease the corporate idiosyncratic risk by increasing CSR reporting. However, the effect of managers' remunerations and state ownership on the relationship between CSR reporting and corporate idiosyncratic risk was not confirmed at the 95% confidence level. Overall, from a theoretical viewpoint, a good corporate governance system can improve the quality of CSR, thereby improving corporate social reputation and reducing corporate idiosyncratic risk.

1 Introduction

In recent decades, growing attention has been paid to corporate social responsibility in both the academic literature and the business world. CSR is often seen as a strategic response to pressure from stakeholders who may be affected by corporate activities [20]. Along with social progress and economic growth, the concept of CSR has improved and become an important force to promote future firms' sustainable development. Its concept is quite close to the concept of sustainable development, which relies on the three key elements of environmental protection, economic growth, and social justice and its consequence is the special focus on the disclosure concept. The Volkswagen scandal,

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which led to the loss of one-third of its stock market, just four trading days after the scandal broke on Sept. 18, 2015, reflects the increasing attention from policymakers, investors, and environmental and social activists towards CSR strategies. In September 2015, Vigeo, a social rating agency, downgraded Volkswagen's social rating. In his press report, Vigeo highlighted the fact that before the scandal, Volkswagen was socially inferior to its car manufacturing counterparts [5]. This example helps us understand why recent studies are increasingly addressing CSR. Belekui states that part of the information needs of social investors is the disclosure of information regarding CSR and social investors are individuals who not only consider financial performance but also notice fulfilling social responsibility and reporting quality and disclosure of CSR information [15]. When companies could earn profits and act responsibly against shareholders, that the society has given authority to organizations (as a group of individuals) to use natural resources and labor. Companies must also be responsive to stakeholders, society and the environment [27]. Responsibilities include compliance with business ethics, protecting the legitimate rights and interests of workers, and conserving environmental resources. However, it depends on the amounts of CSR. Disclosure of social responsibility information is an important part of the accountability and helps consumers' focus to extend from only caring about product quality to multiple aspects, such as environment, occupational health, and workforce protection.

For this research, stakeholders' theory is the accepted paradigm to explain why companies involve themselves in socially responsible activity as a strategy to maximize their long- term return on investment, and sustainable business success, by recognizing the importance of each stakeholder group and incorporating this knowledge into their corporate strategy. Hence the stakeholders control resources that are critical for the existence of the organization, managers who want the continued success of the company and maintain the organization's presence has to strategically focus on the needs of stakeholders. From this perspective, socially responsible companies are more likely to strengthen long-term relationships with stakeholders rather than maximize their short-term profit. According to stakeholder theory, CSR may be an organizational tool that can lead to risk reduction and more efficient use of resources [32], thereby positively affecting the firm's financial performance. Transparent financial reports provide more relevant information to stakeholders for their decision making. In this regard, disclosing social responsibility information by reducing information asymmetry can lead to greater transparency of financial information, especially to meet the needs of stakeholders [17]. Also, paying attention to stakeholders and disclosed information, promotes transparency and positively signals the market that it has a good reputation for the company. Besides due to some factors such as no environmental pollution, high level of customer trust and employee satisfaction, acting on social responsibility reduces the risk of potential litigations. So investors are more likely to invest in those companies because they are more acceptable and reliable. This, in turn, makes the company more favorable in terms of financial and economic performance, and they will have lower risk and finance at a lower cost [5]. Disclosure of CSR information which is possible alongside a good corporate governance system can reduce information asymmetry (according to agency theory), increase organizational legitimacy (according to legitimacy theory), gain community approval (according to political economy theory), positive signaling to the market (according to the signaling theory) and ultimately gain the trust of all stakeholders (according to the stakeholder theory) [11]. Having strong corporate governance in the company can lead companies to be more responsive to all stakeholders and better pay attention to the dimensions of social responsibility. Corporate governance not only has content similar to CSR but also affects the quality of disclosing CSR information [27]. Thus, theoretically, a

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favorable corporate governance system can improve the quality of social accountability and thereby improve the corporate social reputation. A good reputation is considered an intangible asset and represents a kind of psychological contract between the company and the stakeholders. CSR reporting reduces information asymmetry and subsequently builds customer loyalty and increases employee obligation. This will undoubtedly reduce the risk of the company facing penalties and financial cases. Three theoretical arguments related to stakeholder theory, information asymmetry, and risk management show that CSR will entail risk reduction, especially idiosyncratic risk [5]. This study first examines whether socially responsible behavior in companies and its disclosure leads to a reduction in company-idiosyncratic risk, in line with the research by Benlemlih and Girard-Putin [5]. So, due to the lack of emphasis in studies conducted in Iran, on idiosyncratic risk which is influenced by the unique characteristics of companies, this study can help the existing literature. On the other hand, it examines how corporate governance mechanisms such as ownership structure, board characteristics, and incentive contracts affect this relationship. Full and proper implementation of corporate governance leads to the optimal allocation of resources and increased corporate value, which ultimately leads to economic growth and development [31]. On the other hand, one of the key elements of corporate financial crises around the world is the inadequacy of some corporate governance principles in the public and private sectors. Therefore, international financial organizations have reached the level of insight that before investing in companies, they should examine and analyze the corporate governance system in terms of the quality of its practices [9]. It should be noted that previous studies, such as Liu and Zhang [27], have shown significant differences in corporate governance practices and their effects on the level of disclosure and financial status of corporations. For example, differences in the ownership structure (state ownership or ownership concentration) can create differences in the control and motivation of managers to disclose information to outsourced groups and modify the relationship between CSR reporting and corporate risk.

The remainder of the study is structured as follows: Section 2 - Presentation of theoretical foundations, hypotheses, and research background; Section 3 - Introduction of data, variables, and models for empirical analysis, Section 4 - Data analysis in model and presentation of experimental results; Section 5 - Expression general conclusions and suggestions.

2 Literature Review

The Theoretical framework of this research is structured in three parts: On the one hand, the relationship between CSR and idiosyncratic risk is examined, on the other hand, the effect of some corporate governance mechanisms on this relationship is investigated and in the third part the research background is presented.

2.1 Theories Related to CSR and Idiosyncratic Risk

Three main arguments theoretically justify the association between CSR and financial risk. Two arguments, involving the stakeholder theory and information asymmetry, are in line with CSR generating a lower risk. The third one, based on the risk management theory, presents social performance as a result of a risk reduction policy. In fact, the relationship between CSR and idiosyncratic risk can be examined from three theoretical perspectives:

First, according to stakeholder theory, it can be argued that companies should consider the interests of all stakeholders, Freeman [13] proposes that managers must strike a balance between the interests of

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stakeholders, employees, customers, and the community to ensure the survival and success of the organization. Organizations are passionate about meeting stakeholder expectations and enhancing their social performance because they can sustain and grow a company's reputation. A good reputation is a type of intangible asset that results in improved relationships with potential investors and also represents a kind of psychological contract between the company and the stakeholders, which reduces risk and enhances the firm's performance. By increasing their social performance productivity, companies create a high level of employee loyalty and strong customer confidence. Improving the social performance of corporations creates a wealth of communication among all stakeholders (such as employee satisfaction, legitimacy, and credibility in the community). In fact, this ethical capital by creating some kind of insurance or protection for the company can reduce the negative impact of the stakeholders' negative assessment, the severity of the sanctions against the company and the likelihood of lawsuits with financial penalties and consequently decrease the idiosyncratic risk of the companies [5].

Second, disclosure of social responsibility information leads to reduced information asymmetry, increased transparency, and confidence in the company, and the effectiveness of capital markets [28]. Improvement of the disclosed information quality leads to a reduction in information asymmetry and a reduction in unsystematic returns volatility and stock price volatility. From a social responsibility perspective, various studies such as the study by Cho et al. [6] show that in companies with a low level of social responsibility, information asymmetry is exacerbated. Kim et al. [23] also supported the idea, showing that companies with a high score for social responsibility are less likely to manipulate their operating and actual activities or manage their profits and produce a more transparent financial report because they want to send a positive image of the company status to all stakeholders. Also, Benlemlih et al. [5] showed that companies that disclose additional environmental and social information are at lower overall and idiosyncratic risks. Finally, from the risk management perspective, this issue can be addressed; implementing a risk management system leads to the creation of options that improve social responsibility. For example, to avoid penalties related to environmental pollution, the firms will act in favor of the environment, which will result in less strict regulatory controls. Consequently, they gain a high level of customer confidence and a better understanding of society from corporate problems, especially in times of financial crisis [24]. Improved risk management reduces the likelihood of environmental crises; which can harm expected cash flows of the company; and creates more stable cash flows, thereby reducing the idiosyncratic risk and cost of financing the company. Overall, it is expected that social responsibility helps stable maintain relationships with governments and the financial community, including shareholders. CSR also helps companies build customer loyalty, gain employees' support in times of financial instability, and reduce information asymmetry among all stakeholders. This will undoubtedly reduce the risk of corporations facing financial penalties and lawsuits. In practice, companies with a better social rating are expected to have a lower idiosyncratic risk than companies with a lower social rating [24]. Therefore, given the above, the following hypothesis can be made:

Hypothesis 1: Disclosure of CSR information has a significant impact on corporate idiosyncratic risk.

2.2 Corporate Social Responsibility and Corporate Governance

Corporate governance is the set of firm's internal and external controlling mechanisms that determines how and by whom firm is managed [22]. A standardized corporate governance structure is an important way to realize CSR and achieve sustainable development. With good corporate governance

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structures, companies can prevent unlawful actions or short-term behaviors and have a greater tendency to disclose social responsibility information to the public, thereby increasing corporate gains and attracting more investors [21]. Different factors of corporate governance have different effects on the disclosure of corporate social responsibility information.

2.2.1 Ownership Structure and Disclosure of CSR Information

The ownership structure is one factor of corporate governance. When a company ownership concentration is high, large shareholders can easily control the company. They always pursue personal interests and violate the interests of minority shareholders. La Porta et al. [25] called this encroachment "tunneling". As large shareholders gain greater control of the stock, internal imbalances and lack of internal oversight are created and control shareholders are more likely to obtain internal information. As a result, they will be less motivated to require the company to disclose information. Due to cost limitations and lack of incentives, minority shareholders also cannot force the company to disclose further information. As a result, it is expected that in companies with a high concentration of ownership, the level of disclosure of social responsibility information will below. This will, in turn, reduce transparency and increase the corporate idiosyncratic risk. The concept of the social contract was originally based on the idea of justice for individuals in society. However, the social contract also confirms the costs that are imposed on individuals, although the benefits (social and financial) must be greater than the associated costs. Because of the implicit nature of the social contract, some people may not meet the boundaries of socially desirable behavior. To counter such behavior, society accepted that the government is formed with the power to organize and restrict individuals. Governments can penalize individuals or social organizations working through financial penalties and limit the activities of individuals or their freedom [29]. Therefore, in state-owned companies which are pillars of the Iranian economy, it is expected that there will be no situation similar to those with major shareholders because such companies (state-owned companies) have economic, political and social responsibilities. The purpose of government oversight of companies is not only to make a profit, but also to meet employment needs, provide public services and facilities, maintain social stability, and achieve harmonious development across society, the economy, and the environment. The specific characteristics of state-owned companies make them more socially responsible, which increases the likelihood of disclosing social responsibility information [27]. Hence, it can be assumed that state-owned companies are more in need of social responsibility and this, in turn, can increase transparency and reduce specific risk. Therefore, given the above, the following two assumptions can be made:

Hypothesis 2: Ownership concentration has a significant effect on the relationship between disclosure of CSR information and idiosyncratic risk.

Hypothesis 3: state ownership has a significant impact on the relationship between disclosure of CSR information and idiosyncratic risk.

2.2.2 Board of Directors and Disclosure of CSR Information

The CEO's duality indicates a situation in which the CEO is also the chairman or vice-chairman of the board. In this case, the CEO potentially has a great deal of authority and the opportunity to effectively control the information available to other board members. Initial oversight of CEO actions is also diminished, which will increase the CEO's ability to control disclosure, especially voluntary disclosure, as well as the accumulation of bad company news. If the interests of the CEO are not the same

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as those of the shareholders, the managers have a greater ability and incentive to disregard social responsibility and disclose it for their gain. While some studies, such as Andreou et al. [2] have shown, the CEO's duality gives the CEO a higher level of autonomy. If the CEO wishes to continue the success of the company and maintain the organization's existence, he or she will strategically focus on the needs of the stakeholders. This will reduce agency problems and increase the quality of financial reporting, disclosure, social responsibility, which can ultimately lead to decreased corporate idiosyncratic risk.

Independent directors are those who do not hold posts other than directorships, and they should have no contact with the listed companies on whose boards they sit or other main shareholders, as it may affect their independent judgment and oversight. For organizational legitimacy, independent managers are useful for enhancing corporate reputation and for establishing and maintaining organizational legitimacy. Independent executives have more outside knowledge and experience and they may do better in protecting the environment or protecting the interests of corporate stakeholders. They may improve the implementation of social responsibility and increase disclosure of social responsibility information [26]. Therefore, it can be assumed that in companies where most of their board members are independent, there is a greater need for social responsibility, which, in turn, can increase the reputation and legitimacy of the organization and consequently reduce the idiosyncratic risk of the company. Therefore, because of the above, the fourth and fifth hypotheses of this study are as follows:

Hypothesis 4: The CEO's duality has a significant impact on the relationship between disclosure of CSR information and idiosyncratic risk.

Hypothesis 5: Board independence has a significant effect on the relationship between disclosure of CSR information and idiosyncratic risk.

2.2.3 Incentive Contracts and Disclosure of CSR Information

The underlying premise of agency theory is information asymmetry and conflict of interest between managers and shareholders. A good corporate governance system requires certain mechanisms in the process of improving firm performance and monitoring management incentives [16]. The most effective way to reduce the agency cost is representing incentive contracts for managers by giving them rewards or shares. Incentive contracts align managers' goals with the company's performance goals and reduce the possibility of moral hazard and adverse selection. Managers who want to continue the success of the company and maintain the organization's existence strategically devote attention to the needs of stakeholders. There are two perspectives on rewarding managers to practice social responsibility:

In the first view, some like Friedman [14] consider social responsibility to be an unnecessary expense that does not provide any competitive advantage, Therefore, reward incentives may lead managers to maximize their reward in the short term by managing earning with opportunistic incentives and rejecting corporate social responsibility and its disclosure costs, thereby reducing financial transparency, increasing the information asymmetry and increased idiosyncratic risk. From this perspective, rewarding managers can harm the disclosure of social responsibility information. On the other hand, managers may seek to obtain lasting remunerations in the light of gaining job security and greater respect for disclosing social responsibility information [27]. High levels of remunerations may stimulate managers to better serve companies and stakeholders and cause them to pay more attention to social responsibility and increase disclosure of social responsibility information. Equity incentives are also an effective form of incentive contracts. The granting a certain proportion of shares to the managers make

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their benefits accord with those of shareholders. Finally, equity incentives, through incentive objects and enterprises jointly sharing profits and risks, can provide managers with benefits that are in line with shareholder benefits. In that case, managers will do their best to work and manage the company for the benefit of shareholders. Hence, the likelihood of disclosure of corporate social responsibility information and disclosure level increases [27]. Therefore, according to the above, the sixth and seventh hypotheses of the research are as follows:

Hypothesis 6: Managers' remuneration has a significant effect on the relationship between disclosure of CSR information and idiosyncratic risk.

Hypothesis 7: Managers' equity has a significant impact on the relationship between disclosure of CSR information and idiosyncratic risk.

2.3 Background and Review of Related Research

Arab and et al. [3] showed that corporate social responsibility leads to reduced investment inefficiency. Also, information asymmetry plays a mediating role in the relationship between corporate social responsibility disclosure and underinvestment, whereas the variable of agency cost mediates the association between corporate social responsibility disclosure and overinvestment. Latapi Agudelo et al. [26] have reviewed the historical literature and the evolution of corporate social responsibility to further explore the factors that have shaped the current understanding and form of social responsibility, such as academic contributions, international policies, and significant social and political events. The findings showed that the understanding of corporate responsibility has evolved from being limited to the profit generation to include a broader set of responsibilities to the latest belief that the main responsibility of companies should be the generation of shared value. Dyck et al. [10] after examining the role of institutional investors in corporate social responsibility in an international sample of 41 countries, found that there was a positive and causal relationship between institutional ownership and corporate environmental and social performance. This study showed that investors increase firms' environment and social performance when they come from countries with a strong community belief in the importance of environment and social issues, but not otherwise. As such, these institutional investors transplant their social norms regarding the environment and social issues around the world. Michaels and Gruning [30] examined the impact of corporate identity on corporate social responsibility disclosure based on 498 German companies. Results indicate that value chain and future-oriented dimensions, which were more pronounced in mature CSR concepts, foster CSR disclosure, while introversive corporate identity dimensions that were strong in low-level CSR concepts hinder the release of CSR information. The paper shows that a tradition of social responsibility and values results to a low perceived need for legitimacy and outwards communication.

Foroughi et al. [12] after examining the impact of social responsibility on cash holdings through the simultaneous effect of selected variables found that social responsibility through unsystematic risk has a positive and significant effect on cash holding, but through systematic risk has a significant and negative effect on cash holding. Also, corporate social responsibility through corporate governance has a significant and positive effect on cash holding. Garmsiri et al. [15] examined the effect of corporate social responsibility reporting quality, corporate governance characteristics, and financial performance on corporate social reputation, they found that the quality of social responsibility, the amount of board ownership and industrial membership have a direct relationship with reputation. While there is no significant relationship between financial performance, size of the directors' board and company, the ratio of independent board members with company reputation. Benlemlih and Girerd-Potin [5]

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found that by distinguishing between shareholder firms (common law) and stakeholder firms (civil law), corporate social responsibility negatively impacts idiosyncratic, and systemic risk which Its effect is less in shareholder countries and more in stakeholder countries, respectively. Liu and Zhang [27], in a study about the relationship between corporate governance, disclosure of social responsibility information, and the enterprise value of Chinese companies active in heavy-pollution industries, found that the level of disclosure of social responsibility information in heavy- pollution industries is low and disclosing this information does not affect short-term profit but can increase the value of the company in the long run. In general, a high level of corporate governance is beneficial for the legitimate management and disclosure of social responsibility information. Darabi et al. [7], in a study, found that there is a significant relationship between social responsibility reporting and its dimensions including environment, staff welfare, social activity, and valuable energy consumption and systematic risk of companies. Gregory et al. [18] in a sample of US firms rated by the KLD criterion showed that CSRs were more valuable. Even if it is estimated that this effect is mainly related to profitability, the market beta is still slightly lower in socially responsible companies. Gras-Gil et al. [17], after examining the relationship between corporate social responsibility and earnings management for a sample of Spanish firms, showed that social responsibility activities can be an organizational tool that leads to efficient use of resources, and as a result, it harms profit management measures. Hessas Yeganeh and Barzegar [19] have described in research the evolutionary process of generations of corporate social responsibility and the dimensions of corporate social responsibility and sustainability in reporting and disclosure. They have also presented various theories available along with conceptual models and classifications of corporate social responsibility theories, with a brief overview of theories in recent years' research. Dhaliwal et al. [8] in the analysis of 31 countries internationally found that after initiating the disclosure of social responsibility information, it would be easier for companies to raise capital at a lower cost and these companies can also attract more dedicated institutional investors and analysts.

3 Research Methodology

In the descriptive statistics section, data analysis was performed using central indices such as mean and dispersion indices such as standard deviation. Also, a combined data regression model with an integrated approach was used to test the hypotheses. To select between the methods of combined regression models and integrated data models, an F-Limer test is used. If the F-Limer test is used for the integrated data method, it is all done, but if the panel data method is selected, the Hausman test is also required. The Hausman test is used to determine the fixed effects model versus the random-effects model [4]. Hence the results of the research can be used in the decision-making process, this study is applied in terms of objective and descriptive-correlative in nature because the researcher seeks to evaluate the relationship between two or more variables. Data analysis and extraction of research results were performed using Excel 2010, Eviews 10 and Stata 14 software. Also, the confidence level for testing hypotheses and examining classical regression assumptions is 95%. To estimate the parameters of regression models, classical assumptions test including assumptions about self-correlation and inequality of variance between the residuals of the model were used. Wooldridge statistic was used to detect the existence of autocorrelation between residuals. The value of this statistic for the research models indicates a lack of self-correlation between residuals.

3.1 Statistical Population and Sampling Method

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The target population in this study is the companies listed in Tehran Stock Exchange from 2010 to 2018. The following are the conditions for selecting the statistical population thorough screening:
1. For the comparability of information, the end of the fiscal year shall be March 29.
2. To make the information homogeneous, their activity should be productive.
3. Their stock trades have not been stopped in the Tehran Stock Exchange for more than three months during the research period.
4. Information on the variables selected in this study should be available.
By applying the aforementioned conditions, 142 companies were selected as a statistical sample of the companies listed in Tehran Stock Exchange.

3.2 Conceptual Model of Research

The conceptual model of the research is shown in Fig. 1:

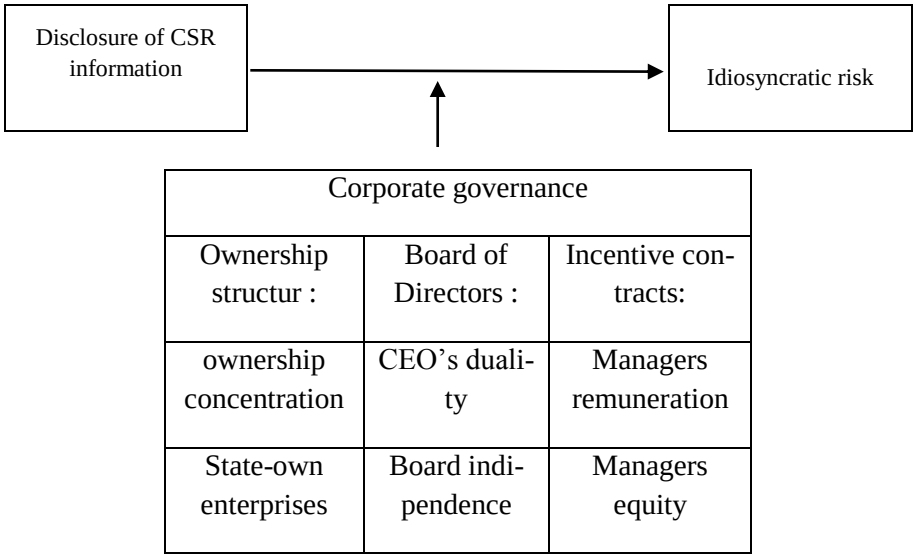


Fig. 1: conceptual model

3.3 Mathematical Models of Research

The first model is presented to test the first hypothesis based on the Girard-Putin and Benlemlih [5] model, in which the relationship between the idiosyncratic risk and the level of CSR disclosure is measured. The second to seventh models are presented respectively to test the second to seventh hypotheses according to the study of Liu and Zhang [27], in which the effects of ownership structure (ownership concentration and state ownership), board characteristics (CEO's duality and Board's independence) and incentive contracts (managers' remuneration and Managers' equity) are measured on the relationship between the idiosyncratic risk and the level of CSR disclosure.

Table 1: Research Models

Moderator variables	Independent & dependent variables	Hypotheses	models	Mathematical models

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		Idiosyncratic risk & CSR	1	1	$IDIOR_{i.t} = \alpha_0 + \beta_1 CSR_{i.t} + \beta_2 MTB_{i.t} + \beta_3 SIZE_{i.t} + \beta_4 ROA_{i.t} + \beta_5 LIQ_{i.t} + \beta_6 LEV_{i.t} + \varepsilon_{i.t}$

Table 1: Continue

Ownership structur	ownership concentration	Idiosyncratic risk & CSR	2	2	$\text{IDIOR}_{i.t} = \alpha_0 + \beta_1 CSR_{i.t} + \beta_2 Cent_{i.t} + \beta_3 Cent_{i.t} * CSR_{i.t} + \beta_4 MTB_{i.t} + \beta_5 SIZE_{i.t} + \beta_6 ROA_{i.t} + \beta_7 LIQ_{i.t} + \beta_8 LEV_{i.t} + \varepsilon_{i.t}$
	State-own enterprises	Idiosyncratic risk & CSR	3	3	$\text{IDIOR}_{i.t} = \alpha_0 + \beta_1 CSR_{i.t} + \beta_2 SOE_{i.t} + \beta_3 SOE_{i.t} * CSR_{i.t} + \beta_4 MTB_{i.t} + \beta_5 SIZE_{i.t} + \beta_6 ROA_{i.t} + \beta_7 LIQ_{i.t} + \beta_8 LEV_{i.t} + \varepsilon_{i.t}$
Board of Directors	CEO's duali-ty	Idiosyncratic risk & CSR	4	4	$\text{IDIOR}_{i.t} = \alpha_0 + \beta_1 CSR_{i.t} + \beta_2 DUAL_{i.t} + \beta_3 DUAL_{i.t} * CSR_{i.t} + \beta_4 MTB_{i.t} + \beta_5 SIZE_{i.t} + \beta_6 ROA_{i.t} + \beta_7 LIQ_{i.t} + \beta_8 LEV_{i.t} + \varepsilon_{i.t}$
	Board's indipendence	Idiosyncratic risk & CSR	5	5	$\text{IDIOR}_{i.t} = \alpha_0 + \beta_1 CSR_{i.t} + \beta_2 Ind_{i.t} + \beta_3 Ind_{i.t} * CSR_{i.t} + \beta_4 MTB_{i.t} + \beta_5 SIZE_{i.t} + \beta_6 ROA_{i.t} + \beta_7 LIQ_{i.t} + \beta_8 LEV_{i.t} + \varepsilon_{i.t}$
Incentive contracts	Managers' remuneration	Idiosyncratic risk & CSR	6	6	$IDIOR_{i.t} = \alpha_0 + \beta_1 CSR_{i.t} + \beta_2 MR_{i.t} + \beta_3 MR_{i.t} * CSR_{i.t} + \beta_4 MTB_{i.t} + \beta_5 SIZE_{i.t} + \beta_6 ROA_{i.t} + \beta_7 LIQ_{i.t} + \beta_8 LEV_{i.t} + \varepsilon_{i.t}$
	Managers' equity	Idiosyncratic risk & CSR	7	7	$IDIOR_{i.t} = \alpha_0 + \beta_1 CSR_{i.t} + \beta_2 ME_{i.t} + \beta_3 ME_{i.t} * CSR_{i.t} + \beta_4 MTB_{i.t} + \beta_5 SIZE_{i.t} + \beta_6 ROA_{i.t} + \beta_7 LIQ_{i.t} + \beta_8 LEV_{i.t} + \varepsilon_{i.t}$

3.4 Research Variables

The studied variables in the research models are defined in Table 2:

Table 2: Main Variables

Name of variable	Symbol	Calculation of variable
Idiosyncratic risk	IDIOR	The standard deviation of the residuals from the three-factors model of Fama-French. The estimation of the model is made over the past 36 months. $R_{i.t} - R_f = \alpha_0 + b(MKT_t) + s(SMB_t) + h(HML_t) + \varepsilon_{i,t}$ (Further information is provided in the text)
Corporate social responsi-bility information disclosure	CSR	$CSR\ reporting\ index = \sum_{i=1}^{nj} \frac{X_{ij}}{\mathrm{n}_j}$ (Further information is provided in the text)
Ownership concentration	CENT	Percentage of three major shareholders
State-owned enterprises	SOE	Number of state-owned shares/Total number of shares
CEO's duality	DUAL	If CEO is chairman or vice chairman of the board of directors = 1 Otherwise = 0
Board independenc	IND	Number of independent directors/Total number of director board members

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Table 2: Continue

Name of variable	Symbol	Calculation of variable
Managers remuneration	MR	Natural logarithm of total managers remuneration
Managers equity	ME	Percentage of shares owned by company management
Liquidity	LIQ	Ratio of cash and cash equivalents to total assets
Return on assets	ROA	net profit/ sum of the assets of company
Financial leverage	Lev	Total liabilities/Total assets
Enterprise size	Size	Natural logarithm of the company market value
Growth opportunity (market to book value)	MTB	the market value of the equity/the book value of the equity.

Corporate Social Responsibility (CSR):

In this study, to measure the disclosure of corporate social responsibility information as an independent variable, at first, a checklist of items collected in various surveys to measure social responsibility was prepared. In the following, one of the researches that had the same checklist or questionnaire was examined. Finally, after averaging, the number of repetitions of items, the items whose number was more than average were accepted as items in the final research checklist. As a result, the final checklist contains 27 items that are presented in the appendix.

The CSR reporting index is used to measure corporate social responsibility disclosure as follows:

$$CSR\ reporting\ index = \sum_{i=1}^{nj} \frac{X_{ij}}{\mathrm{n}_j}$$

nj = = Total expected points for each company j in year t (which equals 27 for 27 items)

Xij = Total points earned for each company j in year t (company gets one code for each disclosed item and otherwise gets zero code)

Idiosyncratic Risk (IDIOR):

In this study, the Fama and French three-factors model was used to calculate idiosyncratic risk, according to Benlemlih and Girerd-Potin [5]. In this model, the idiosyncratic risk is measured by the standard deviation of the model residuals based on the information of the past 36 months. The model estimating the idiosyncratic risk in the multivariate approach is illustrated by the following equation:

$$R_{i.t} - R_f = \alpha_0 + b(MKT_t) + s(SMB_t) + h(HML_t) + \varepsilon_{i,t}$$

$R_{i.t} - R_f$: Surplus stock returns of the company i in month t (difference of company i return in month t and risk-free return rate).

MKT_t : The difference between market return and the risk-free rate of return (risk premiums of company stocks for month t).

SMB_t: Risk factor due to the company size for month t

HML_t: Risk factor resulting from the company growth for the month t (The ratio of book value to market value of equity).

Both SMB_t & HML_t factors are calculated based on the Fama and French three-factors model.

Finally, εit is the disruption of the regression model which includes the effect of all the variables of the model removed on firm return i in period t and in this study, the 36-months standard deviation is considered as an idiosyncratic risk measure.

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Idiosyncratic Risk (IDIOR): Equals the standard deviation of the Fama and French three-factors model residuals. The model estimation is based on information from the past 36 months.

4 Research Findings

4.1 Descriptive Statistics

The results of the descriptive statistics of the research variables are shown in Table 3.

Table 3: Descriptive statistics of research variables

Variable	N	Mean	St.Dev.	Min	Max
IDIOR	832	0.112	0.0788	0.0002	0.710
CSR	832	0.480	0.162	0.074	0.925
CENT	832	0.735	0.186	0.112	0.992
SOE	832	0.285	0.324	0.000	0.961
DUAL	832	0.161	0.367	0.000	1.000
IND	832	0.668	0.178	0.000	1.000
MR	832	4.16	3.604	0.000	11.464
ME	832	0.594	0.280	0.000	0.994
LIQ	832	0.0406	0.0475	0.0001	0.460
ROA	832	0.0982	0.154	-0.541	0.626
LEV	832	0.602	0.205	0.0405	0.987
SIZE	832	14.285	1.479	10.952	19.249
MTB	832	3.208	2.556	0.362	18.878

* Source: Research Findings

Table 3 shows the descriptive statistics for the research variables that represent the descriptive parameters for each variable separately. For example, the mean enterprise size variable (SIZE) is 14.285 which indicates that most data on this variable are focused around this point. Standard deviation is one of the most important dispersion parameters. The value of this parameter for managers' remuneration variable (MR) is 3.604 and for company liquidity variable (LIQ) is 0.047 which indicates that MR and LIQ have the highest and lowest dispersion rates, respectively. It is necessary to explain that to avoid the influence of irrelevant data on the results of the research, all irrelevant data of the variables were eliminated at the 1% level.

4.2 Inferential Statistics

Before estimating the models, at first must determine the appropriate model for estimating each model by performing the Chow, Breusch-Pagan and Hausman tests; the results of this test can be seen in Table 4. Concerning the research model, the significance of Chow, Hausman and Breusch-Pagan tests shows that these models have been estimated using a panel data model with fixed effects approach.

4.3 Main Results

The results of fitting the research patterns are presented in Tables 5 to 8 to test the research hypotheses. According to the observable results in the tables concerning the research patterns, since the probability of the F statistic in all seven patterns is equal to (0.000) and less than 5%, it can be claimed that overall, all research patterns are highly significant. Also, given that the Wooldridge statistic was not

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significant in each of the seven patterns, the residuals of each of the research patterns were not serially correlated with each other. Besides, the variance inflation factors (VIF statistic) in all models indicate that the independent variables have no linear problem.

Table 4: Results of tests for selecting an appropriate pattern for estimating the models

Investigated Pattern	Chow test		Breusch-Pagan test		Hausman test	
	Statistic	Significance	Statistic	Significance	Statistic	Significance
Pattern 1	14.22	0.000	307.56	0.000	41.57	0.000
Pattern 2	14.16	0.000	59.35	0.000	82.96	0.000
Pattern 3	11.99	0.000	98.26	0.000	92.47	0.000
Pattern 4	13.68	0.000	48.75	0.000	114.69	0.000
Pattern 5	12.63	0.000	77.08	0.000	94.80	0.000
Pattern 6	12.04	0.000	71.81	0.000	89.62	0.000
Pattern 7	13.45	0.000	101.25	0.000	131.30	0.000

* Source: Research Findings

Table 5: Results of Model 1 Research Estimates for Testing Hypothesis 1

Variable	Idiosyncratic risk (IDIOR)			
	MODEL 1			
	Coefficient	T statistic	Error level	VIF
α_0	0.097	3.48	0.001	
CSR	-0.109	-6.37	0.000	1.10
LIQ	0.100	1.69	0.092	1.09
ROA	-0.052	-2.13	0.033	1.79
LEV	0.0307	1.66	0.098	1.85
SIZE	0.0040	1.95	0.051	1.19
MTB	-0.0030	-2.41	0.001	1.13
Adjusted coefficient of determination	0.081			
Wooldridge statistic	4.984			
Probability of wooldridge statistic	0.0607			
F statistic	12.05			
Probability of F statistic	0.000			

* Source: Research Findings

The First Hypothesis Test Result

The first hypothesis examines the impact of disclosing CSR information on a company's idiosyncratic risk. According to the adjusted coefficient of determination, it can be stated that in total, independent and control variables in the model (1) explain more than 8% of the dependent variable changes. Considering the social responsibility coefficient which is (-0.109) in the model (1), and with its error level equal to (0, 000) and less than 0.05, It can be stated that the first hypothesis is confirmed at the confidence level of 95%. Finally, the negative coefficient of social responsibility in the model indicates that increased CSR reporting reduces the idiosyncratic risk of the company. The result of testing this hypothesis is consistent with the theoretical foundations of the research and is in line with the research of Benlemlih and Girard-Putin [5].

The Second and Third Hypotheses Test Results

Hypotheses 2 and 3 examine the impact of ownership structure, respectively, include ownership concentration (in model 2) and state ownership (in model 3) on the relationship between disclosure of

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CSR information and idiosyncratic risk. According to the adjusted coefficient of determination, it can be stated that in total, independent and control variables explained more than 13% in the model (2) and more than 9% in the model (3) of the dependent variable. The coefficient of ownership concentration on the relationship between CSR reporting and idiosyncratic risk equals (0.123) and its error level (0.000) is less than 5%, so hypothesis 2 is confirmed at 95% confidence level. The state ownership coefficient for this relation is equal to (-0.0203) and its error level (0.408) is more than 5%, so hypothesis 3 is not confirmed at 95% confidence level. Finally, the positive coefficient of ownership concentration on this relationship indicates that increasing ownership concentration by decreasing social responsibility increases idiosyncratic risk and the negative coefficient of state ownership on this relationship indicates that increasing state ownership by increasing social responsibility reduces the idiosyncratic risk of the company. The test results of these two hypotheses are consistent with theoretical foundations and are consistent with the research of Liu and Zhang [27] and Benlemlih and Girdputin [5].

Table 6: Results of Estimation of Research Patterns 2 and 3 for Testing Hypotheses 2 and 3

variable	Idiosyncratic risk (IDIOR)							
	MODEL 2				MODEL 3			
	Coefficient of Variation	T statistic	Error level	vif statistic	Coefficient of Variation	T statistic	Error level	vif statistic
α_0	0.0906	3.20	0.001		0.0953	3.39	0.000	
CSR	-0.185	-6.54	0.000	3.25	-0.104	-5.71	0.000	1.24
CENT	0.037	2.46	0.014	1.62				
CENT*CSR	0.123	3.68	0.000	3.70				
SOE					-0.019	-1.42	0.155	2.60
SOE*CSR					-0.0203	-0.83	0.408	2.73
LIQ	0.099	1.72	0.086	1.09	0.101	1.72	0.085	1.09
ROA	-0.0748	-3.14	0.002	1.86	-0.059	-2.44	0.015	1.80
LEV	0.0099	0.56	0.577	1.96	0.0274	1.48	0.140	1.86
SIZE	0.0030	1.55	0.122	1.21	0.0046	2.28	0.023	1.19
MTB	-0.0025	-2.07	0.039	1.14	-0.0025	-2.00	0.046	1.14
Adjusted coefficient of determination	0.132				0.0932			
wooldridge statistic	4.916				4.205			
Probability of wooldridge statistic	0.0621				0.079			
F statistic	15.57				10.48			
Probability of F statistic	0.000				0.000			

* Source: Research Findings

The Fourth and Fifth Hypotheses Test Results

Hypotheses 4 and 5 examine the impact of board characteristics, respectively, include the CEO's duality (in model 4) and the independence of board members (in model 5) on the relationship between disclosure of CSR information and idiosyncratic risk. According to the adjusted coefficient of determination, it can be stated that in total, independent and control variables explain more than 11% in the

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model (4) and more than 9% in the model (5) of the dependent variable. The coefficient of CEO's duality on the relationship between CSR reporting and idiosyncratic risk equals (-0.0350) and error level (0.047) and the board's independence coefficient on this relation is equal to (-0.0451) and its error level is (0.040). Given that the error level in both models is less than 0.05, therefore, hypotheses 4 and 5 are confirmed at the confidence level of 95%. Finally, the negative coefficient of both the CEO's duality and the board independence on the relationship between CSR reporting and idiosyncratic risk indicates that the CEO's duality and the board's independence by increasing social responsibility reduce the idiosyncratic risk of the company. The test results of these two hypotheses are consistent with theoretical foundations and are consistent with the research of Liu and Zhang [27], Benlemlih and Gird-Putin [5], and Andreou et al. [2].

Table 7: Results of estimation of model 4 and 5 research to test hypotheses 4 and 5

Variable	Idiosyncratic risk (IDIOR)							
	MODEL 4				MODEL 5			
	Coefficient of Variation	T statistic	Error level	vif statistic	Coefficient of Variation	T statistic	Error level	vif statistic
α_0	0.104	3.76	0.000		0.127	4.30	0.000	
CSR	-0.102	-5.94	0.000	1.14	-0.088	4.42	0.000	1.51
DUAL	-0.0195	-2.03	0.042	2.15				
DUAL*CSR	-0.0350	-1.99	0.047	2.15				
IND					-0.0368	-2.16	0.031	1.28
IND*CSR					-0.0451	-2.05	0.040	1.63
LIQ	0.087	1.49	0.136	1.09	0.102	1.74	0.083	1.09
ROA	-0.0555	-2.31	0.021	1.79	-0.0459	-1.89	0.059	1.81
LEV	0.0366	2.00	0.046	1.87	0.0226	1.22	0.224	1.87
SIZE	0.0036	1.82	0.070	1.19	0.004	2.05	0.041	1.19
MTB	-0.0031	-2.52	0.012	1.13	-0.002	-2.18	0.030	1.13
Adjusted coefficient of determination	0.112				0.098			
wooldridge statistic	4.179				4.219			
Probability of wooldridge statistic	0.080				0.079			
F statistic	12.99				11.11			
Probability of F statistic	0.000				0.000			

* Source: Research Findings

The Sixth and Seventh Hypothesis Test Results

Hypotheses 6 and 7 examine the impact of incentive contracts, including managers' remuneration and managers' equity, on the relationship between disclosure of CSR information and idiosyncratic risk. According to the adjusted coefficient of determination, it can be stated that in total, independent and control variables explain more than 9% in the model (6) and more than 10% in the model (7) of the dependent variable. Managers' remuneration coefficient on the relationship between CSR reporting and idiosyncratic risk according to the model 6 equals (0.0032) and its error level (0.216) greater than 0.05, so hypothesis 6 is not confirmed at the confidence level of 95%. The coefficient of managers'

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equity on the relationship between CSR reporting and idiosyncratic risk equals (-0.043) and its error level (0.040) is less than 5%, so hypothesis 7 is confirmed at 95% confidence level. Finally, the positive coefficient of remuneration on this relationship indicates that increasing the reward by decreasing social responsibility increases the idiosyncratic risk of the company and the negative coefficient of managers' equity on this relationship indicates that increasing managers' shares by increasing social responsibility reduce idiosyncratic risk. The test results of these two hypotheses are consistent with theoretical foundations and are consistent with the research of Liu and Zhang [27] and Benlemlih and Gird-Putin [5].

Table 8: Results of Model 6 and 7 Research Estimates for Testing Hypotheses 6 and 7

Variable	Idiosyncratic risk (IDIOR)							
	MODEL 6				MODEL 7			
	Coefficient of Variation	T statistic	Error level	vif statistic	Coefficient of Variation	T statistic	Error level	vif statistic
α_0	0.089	3.13	0.000		0.121	4.29	0.000	
CSR	-0.114	-6.04	0.000	1.39	-0.086	-4.30	0.000	1.54
MR	0.0008	0.61	0.541	3.76				
MR*CSR	0.0032	1.24	0.216	3.97				
ME					-0.026	-2.26	0.024	1.60
ME*CSR					-0.043	-2.06	0.040	1.97
LIQ	0.103	1.74	0.081	1.09	0.086	1.47	0.141	1.10
ROA	-0.065	-2.66	0.008	1.83	-0.0378	-1.55	0.121	1.84
LEV	0.0278	1.51	0.132	1.85	0.0451	2.41	0.016	1.95
SIZE	0.0041	2.05	0.041	1.19	0.0028	1.37	0.170	1.22
MTB	-0.0026	-2.13	0.0034	1.14	-0.029	-2.34	0.020	1.13
Adjusted coefficient of determination	0.093				0.105			
wooldridge statistic	4.054				4.652			
Probability of wooldridge statistic	0.0839				0.0679			
F statistic	10.47				12.02			
Probability of F statistic	0.000				0.000			

* Source: Research Findings

5 Discussion and Conclusion

In this study, after examining the effect of social responsibility reporting on corporate idiosyncratic risk, it was found that there is a significant negative relationship between the two. In other words, increasing the disclosure of social responsibility information will reduce the idiosyncratic risk of companies. Three theoretical arguments related to stakeholder theory, information asymmetry, and risk management show that corporate social responsibility is responsible for mitigating the risk, especially the idiosyncratic risk, which is influenced by the unique characteristics of the companies. According to Hassas Yeganeh and Barzegar's [19] research, the dominant theory in corporate social responsibility is stakeholder theory, as it explains the reasons for corporate participation in social responsibility activities. The stakeholders' theory is a clear answer to those financial theories that con-

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sider maximizing profit as the only main objective of the corporations. However, stakeholders' theory argues that this goal, is just one aspect of the multiple corporate goals, and this theory holds that it is necessary to strike a balance between the claims of the shareholders and the other stakeholders. Engaging in socially responsible activities not only improves stakeholder satisfaction but also has a positive effect on corporate reputation and reduces the financial risk incurred by the firm. This reputation is essentially insulation against the negative financial performance of companies. Companies that improve their reputation by increasing their social performance benefit from a low likelihood of legal actions resulting in financial penalties, less strict regulatory controls, a high degree of employee loyalty and strengthen customer trust. Albuquerque et al. [1] have argued that CSR increases customer loyalty, leading to firms having more pricing power. Direct evidence for this is observed in the ability of firms to sell more or at higher prices those products that have CSR features. Also, firms with high social capital, measured as CSR rating, had considerably higher stock returns during the financial crisis, implying that CSR activities are a risk management tool. Furthermore, CSR initiatives generate moral capital that creates relational wealth in different forms among all corporate stakeholders (e.g. employee satisfaction, legitimacy, and credibility in the community). The moral capital leads to some form of insurance or protection for this relational wealth against the loss of negative stakeholder appreciation and the severity of the sanctions against the company. Willingness to do CSR will increase the company's creditworthiness for obtaining more loans, improve the image of the brand and its reputation, enhance the quality of products manufactured by the company, and the customers' loyalty, increase recycling of materials, and the use of renewable resources, reduce environmental pollution by the company, improves the corporate political power, establishing a better balance in stakeholders' rights, and help reinforce corporate influence in public and political affairs.

All of the above will somehow lead to improved corporate performance and reduced corporate idiosyncratic risk. Also, disclosing social responsibility information will reduce information asymmetry and increase transparency and confidence in the company, which will lead to lower unsystematic returns volatility. Managers of high-CSOs avoid managing their profits and produce a more transparent financial report because they want to send a positive image of the status of the company to all stakeholders [8]. Finally, from a risk management perspective, when companies act in the favor of the environment and respect the rights of various stakeholders, this results in a reduction in the number of pollution emissions, increased levels of trust and satisfaction of customers and employees, and a better understanding, by the community, of the difficulties faced by firms, especially in times of financial crisis. As a result, the risk of potential litigation against the company (e.g. risk of paying pollution-related penalties) is reduced and more stable cash flows are created for the company, and these resources can be devoted to strategic decisions and investments, which can reduce the perceived risk of the market [5]. If a company discloses its social responsibility information deeply to the public, the market also shows that the company has been legally credible, honest, reliable, and rigorous in its operations. This leads to lower risk, greater investor confidence, and easier and cheaper financing. It also goes beyond the effects of some corporate governance mechanisms such as ownership structure (concentration of ownership and state ownership), characteristics of the board of directors (CEO's duality and board independence) and incentive contracts (managers' remuneration and shares) Was investigated on this relation. Theoretically, a good corporate governance system can enhance the quality of corporate social responsibility and thereby improve corporate social reputation. Moreover, the goal of both corporate governance improvement and fully implementing corporate social responsibility is to enhance corporate legitimacy. Legitimacy is the public awareness and assumption of whether

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corporate actions fulfill expectations and are suitable under existing social regulations, values, faith, and concepts. Undoubtedly, corporate governance and social responsibility information disclosure are methods for corporate legitimacy management. Corporate governance not only has the same core content as corporate social responsibility but also affects the quality of social responsibility information disclosure. Better managers enable better corporate governance and pay more attention to their stakeholders. They also exert more effective control over organizations, which leads to reduced risk and increased financial returns and company value [27]. The findings showed that in the ownership structure sector, increasing the concentration of ownership by decreasing social responsibility increases the idiosyncratic risk of the company, but increasing the state ownership by increasing the social responsibility reduces the idiosyncratic risk of the company. However, the effect of state ownership on this relationship was not confirmed at the 95% confidence level. As stated in the theoretical framework, in companies with a high concentration of ownership, internal imbalances arise because large shareholders have easy access to information within the organization and, in pursuit of their interests, violate the interests of minority shareholders and are reluctant to disclose additional information such as corporate social responsibility, on the other hand, minority shareholders have no power to compel corporations to disclose such information. As a result, in companies with a high concentration of ownership, the level of social responsibility information disclosure and transparency is low and thereby adds idiosyncratic risk. Whereas in state-owned companies since the government has economic, political and social responsibilities, the aim is not only to make a profit besides seek to maintain social stability and achieve harmonious development among society, the economy and the environment. The specific characteristics of state-owned corporations compel these companies to adopt and disclose more social responsibilities, which increases transparency and reduces company-idiosyncratic risk. Also, in the characteristics of the board of directors, the CEO's duality and the independence of board members by increasing social responsibility reduces the idiosyncratic risk of the company.

The board can influence the governance, operational efficiency, and disclosure of social responsibility information. some studies, such as Andreou et al. [2] have shown, the CEO’s duality gives the CEO a higher level of autonomy. If the CEO wishes to continue the success of the company and maintain the organization's existence, he or she will strategically focus on the needs of the stakeholders. This will reduce agency problems and increase the quality of financial reporting, disclosure, social responsibility, which can ultimately lead to decreased corporate idiosyncratic risk. On the other hand, in companies where most of the board members are independent, there is a need for greater social responsibility, which in turn enhances the reputation and legitimacy of the organization and thereby reduces the idiosyncratic risk of the company. Independent directors have more external knowledge and experience, and from the perspective of corporate legitimacy, independent managers have a greater incentive to execute and disclose social responsibility to enhance the reputation and credibility of companies, create and maintain corporate legitimacy. Finally, in the incentive contracts section, increasing managers’ shares by increasing social responsibility reduces idiosyncratic risk, but increasing managers' remuneration by decreasing social responsibility increases company idiosyncratic risk. However, the effect of managers' remuneration on this relationship was not confirmed at the 95% confidence level. These results show that when motivating managers through profit-based rewards, managers seek to maximize company profits in the short run to maximize their rewards and they don't accept the current costs of operating and disclosing social responsibility. Thus increasing managers' remuneration by reducing disclosure of social responsibility leads to increased corporate idiosyncratic risk. In contrast, equity incentives, through incentive tools and a shared stake in the firm's profits and risks,

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can bring benefits to managers, which is in line with shareholder benefits. In that case, executives will do their best to work and manage the company for the benefit of shareholders. Hence, it will increase the likelihood of disclosure of corporate social responsibility information and disclosure level. In fact, the most effective way to motivate managers to align their interests with shareholders is to grant their equity. Compared to reward incentives, equity incentives are stronger and longer-term incentives to limit managers' short-term actions. Therefore, it was found that in companies with a higher percentage of managerial ownership, disclosure of corporate social responsibility information further reduces corporate-idiosyncratic risk. The current study proposed the following practical suggestions:

1- Companies are advised to consider participating in social responsibility activities as a long-term strategy to sustain their business success. To apply this concept, companies have to look at different key areas. Consider, for example, in the area of human resource management, strengthen the power of choice, encouragement of teamwork, and monitoring of competition among employees. In the area of customer responsiveness, consider issues such as customer needs assessment, periodic reviews of consumer feedback on products, quick resolution of consumer problems, and introduction of special services to specific needs. In the area of product or service quality, they must receive ISO 9000 certification and total quality management (TQM) in accordance with company strategies. By striving to obtain these certifications, companies will be committed to social responsibility in both their processes and structures and will be able to attract stronger partners. In the area of environmental sustainability, companies should seek to develop strategies for using waste and developing more green products through programs such as ISO 14000 and recycling programs. In the area of cooperation with the social environment, companies are expected not only to be good neighbors and citizens but also to engage in philanthropic activities such as school building, health care development and green belt development.

2- Investors should prioritize investing in companies that are high on social responsibility reporting, as these companies will be at a lower risk.

3- By setting standards on disclosure of social responsibility information, the Audit Authority can help clear up companies' confusion and improve the transparency of information and increase investor confidence and fairness for all stakeholders. The Tehran Stock Exchange shall adopt laws and regulations that measure and determine as much as possible, the true extent of corporate social responsibility during the many years of its operation.

4- Corporate executives are advised to act under the latest corporate governance guidelines for companies listed in Tehran stock exchange and over- the- counter market which is approved by the board of directors of the stock exchange on 2018/07/18 in 6 chapters, 44 articles and 24 notes to protect stakeholder rights, prevent violations and organize and develop a transparent and fair market for securities. According to the results of the present study, it is suggested to reward the managers by granting shares to reduce the costs of agency and to reconcile the interests of the manager with the shareholders, because in this case, if the manager also has high authority (duality), he or she will use it to make decisions for the benefit of the whole company. On the other hand, selecting more independent directors on board can be useful in achieving corporate governance goals. Securities exchange can also help meet the information needs of all stakeholders and reduce the tunneling of control shareholders by enacting laws requiring companies to disclose social responsibility information.

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Appendix

Items related to disclosure of corporate social responsibility information

human resources	1. Improving working conditions (employee negotiations with employer, reduction of layoffs or transfer of employees)
	2. Cash rewards and benefits
	3. Occupational Health and Safety
	4. Staff training and development program
	5. Staff Welfare (Sports, Loans, ...)
	6. Classification by staff education
	7. Equal and non-discriminatory treatment in the areas of training, promotion and important appointments with all staff
	8. Equal and non-discriminatory treatment in the fields of employment and job development with all job applicants, regardless of gender, race, religion
	9. Creative action (e.g. disability employment and number of disabled employees, social innovation in poverty alleviation)
Products and Services / Customers and Suppliers	10. An approach to improving the quality of iso and its safety and health for the customer and the community and adhering to laws and regulations
	11. Customer relationship and after sales service
	12. Measuring customer satisfaction, filing complaints, awards and proper accountability
	13. Information on product brochures or labels and effective measures to reduce the negative effects of the product on health and safety
	14. Customer health, privacy practices, and ethical considerations in selecting customers
	15. Duration of service and delivery of goods
	16. Having a Website and Internet Services (News, Information, Communication with shareholders, etc.)
Environmental Issues	17. Pollution control (water, air, soil, sound and related activities)
	18. Environmental Policy
	19. Recycle, reduce and eliminate waste
	20. Prevention of environmental damage
	21. Referring to the certification and standards and compliance with environmental laws and regulations
Responsibility, Society and Politics	22. Supporting community activities (consumer, environment, legal environment)
	23. Domestic and foreign charitable donations and services (public assistance, government assistance and poverty reduction)
	24. Providing products and services free of charge or at a discount to economically deprived areas
	25. Extracurricular activities (religious, cultural, artistic, publishing brochures and magazines ...)
	26. Participate in humanitarian activities (such as drug trafficking, corruption, bribery, extortion and avoidance of collusion and abuse of monopoly position)
Energy	27. Disclosures of companies' activities to use resources efficiently and effectively, such as efforts to consume clean energy

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