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Investigating the Impact of Financial Reporting Quality on the Risk of Stock Price Collapse with Regard to the Moderating Role of Corporate Governance

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Abstract


The purpose of this study is to investigate the effect of financial reporting quality on the risk of stock price collapse with respect to the moderating role of corporate governance. The present study is an applied research in terms of its purpose, a descriptive post-event research method, a positive research in terms of its theoretical approach, and an inductive research in terms of its reasoning, as well as a quasi-experimental research in the field of financial accounting research. The time period of this study is the Six -year period from 2019 to 2024. The statistical sample of the study was selected by systematic (purposeful) elimination method, consisting of 110 companies. In this study, a multivariate linear regression model was used to test the hypotheses. The statistical method used in this study is the panel data method. The statistical analysis of the data was carried out using Excel and Eviews10 software. The results of the study show that the quality of financial reporting has a significant negative relationship with the risk of stock price collapse of companies listed on the Tehran Stock Exchange. Also, institutional ownership and the percentage of non-executive directors as corporate governance criteria do not have a moderating role in the relationship between the quality of financial reporting and the risk of stock price collapse.

Keywords: Financial reporting quality, Information transparency, Stock price crash risk, Corporate governance.

1 | Introduction

Globalization has been accompanied by the development and dynamism of the market and, at the same time, increased instability and more doubts at the level of large companies. Financial scandals at the beginning of the third millennium and the consequences that followed are the main reason for paying more attention to

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the quality of financial statements [1]. Today, proper management, control and supervision of corporate affairs is one of the fundamental issues raised in the economic systems of various countries in the world, including Iran. Given the developments in the current world, protecting the interests of investors as providers of capital and also the most important group of users of accounting information and financial reports has become more necessary than ever [2]. Financial reporting covers a wide range of reports, of which financial statements are one of the most basic parts. Financial reporting is one of the mechanisms that can improve the performance of capital markets. The capital market, as the driving force of the economy, is based on information. The correct flow of information in this market leads to correct and rational decisions by participants and ultimately brings economic development and improved social welfare. Financial reports are one of the most important sources of information, which aims to provide the necessary information for economic decision-making and meet a large part of the information needs of the capital market. The increase in the number of frauds that was mixed with the bankruptcy of large companies brought concerns about the quality of financial reporting [3].

The quality of financial reporting has always been considered by the accounting profession as a criterion for the correct performance of accounting activities. In fact, increasing the quality of accounting means increasing the auditor's effort to discover possible errors and significant distortions in the financial statements. If restatement is made in the financial period, while it is possible that the distortions that led to the restatement in previous periods were discovered and reported by the auditor, it is clear that the quality of the accounting report was low [4]. In the world's stock markets, the main reason for the occurrence of financial crises is the lack of transparency of information and financial reporting in these markets, which has reduced the level of public trust of investors. For more than a decade, financial reporting has become an effective factor in determining investor strategies. Transparent disclosure of companies' financial information through the publication of basic financial statements is an important factor in reducing information asymmetry between managers and owners and leads to an increase in the risk premium and expected return of investors; therefore, companies are forced to hold more cash to prevent their costs from increasing [5].

Reducing information asymmetry has reduced emotional news about companies, which can reduce the volatility of company returns. In fact, sufficient information available to investors helps them not to make mistakes in predicting future profit flows and obtain more realistic values for stocks [5]. With regard to obtaining scarce resources and realizing the organization's strategic goals and maintaining their survival, organizations always need to improve their financial performance and operations. This is considered very important for companies that compete with their competitors to achieve profitability and maintain the wealth of their shareholders; therefore, measuring and evaluating performance using accounting systems is a key and inevitable process. The development of the accounting profession itself is influenced by a wide range of factors such as institutional, political, cultural and economic factors. Accounting information is one of the most important sources of information that, as the main product of the accounting system, plays a fundamental role in the decision-making of various groups in the capital market. This information is measured and presented through a computational process based on the principles and standards of the competent authorities, and if it does not have the necessary transparency, the likelihood of making incorrect decisions by the recipient of the information increases [3].

The quality of financial reporting indicates the accuracy and veracity of financial reports in expressing information related to the company's operations, especially expected cash flows, in order to inform investors. According to the Financial Accounting Standards Board (FASB) Concept Statement No. 1, financial reporting should provide useful information that helps actual and potential investors make financial decisions. The main goal of financial reporting is to provide reliable and trustworthy information to users of financial statements. This information will be reliable if an independent and impartial person confirms its accuracy. Companies use the services of independent auditors to confirm financial statements and reports and to assure users about the reliability of financial information [6], [7] described financial reporting quality as the accuracy with which financial statements provide information about the daily business activities of the organization, especially about its projected cash inflows and outflows that provide insight to shareholders [8] explained that

financial reporting quality can be determined through various quantitative and qualitative models identified by existing research. Such as: 1) accrual models, 2) value relationship model, 3) a model of specific elements in financial statements, and 4) a model of qualitative characteristics of financial statements [9]. Based on empirical evidence, the most effective way of accountability is financial reporting. In recent years, following widespread financial scandals at the global level, Large companies such as WorldCom and Enron and the lack of confidence in accounting figures, which constitute the most important part of financial reports, have reduced investor confidence in the financial statements prepared by management. One of the areas that can cause investor uncertainty is the phenomenon of falling stock prices [10].

In addition to the significant losses it causes to investors' wealth, falling stock prices also reduce their confidence in the capital market. The loss of a large number of investors in the capital market has attracted the attention of many researchers to the issue of falling stock prices and its causes. In the absence of complete transparency in financial reporting, this opportunity is provided to managers to hide negative information within the company in order to maintain their jobs and professional reputation, and this negative information accumulates within the company. When the mass of accumulated negative information reaches its peak, it will be impossible and costly to maintain it for a longer period of time. Finally, this negative information enters the market all at once and leads to a fall in stock prices [5]. Falling stock prices are an issue that usually occurs due to the presence of a bubble in the company's stock price. Management actions such as rushing to release good news and delaying the release of bad news, continuing projects with negative current values, as well as the lack of transparency of financial information, the use of accounting systems, and tax evasion can be the reason for the creation of bubbles in prices and the fall of stock prices [10].

In the absence of complete transparency in financial reporting, managers have an incentive to hide part of the losses in order to keep their jobs. This process, that is, not disclosing real losses, continues until the manager is in the company. After the manager leaves the company, a huge volume of undisclosed losses enters the market, leading to a fall in stock prices. In addition, in an environment where reporting is not transparent, investors cannot identify and discover the company's loss-making projects. The inability of investors to recognize and differentiate between profitable and unprofitable projects in the early stages causes unprofitable projects to continue and accumulate within the company over time, and after the disclosure of information related to them, the stock price drops sharply. Of course, disclosing information at an appropriate time reduces the risk of a stock price collapse, and companies with more capable management are less exposed to this risk. In recent years, corporate governance has become a major and dynamic aspect of business, and attention to it is increasing exponentially, and progress in the implementation of corporate governance law is growing globally. International organizations such as the organization for economic cooperation and development provide acceptable international standards in this field. In the United States and the United Kingdom, they continue to strengthen their corporate governance systems, paying special attention to shareholders and their relations, accountability, improving the performance of the board of directors, auditors, and accounting and internal control systems [11].

They are concerned that companies are controlled and managed by these methods. In addition, component investors, institutional investors, accountants and auditors, and other players in the money and capital market scene are aware of the philosophy of existence and the need for continuous reform and improvement of corporate governance. Corporate governance is one of the important concepts for which many definitions have been provided so far, but corporate governance can be defined as a set of methods and processes by which companies are directed and controlled. One of the benefits of strong corporate governance is that it controls and reduces opportunistic management behavior. Corporate governance systems reduce risks and reduce management actions that harm shareholder wealth. As a result, an effective corporate governance system should lead to improved reporting levels. Financial. In particular, corporate governance systems are designed to reduce agency costs and preserve shareholder wealth [11]. Given the necessity of quality financial reporting by companies in order to provide desirable information, in order to make economic decisions for users of financial statements, prevent management fraud in the presentation and disclosure of financial statements, create transparency in the capital market and consequently the country's economic progress and

development, and due to the great importance of quality financial reporting in financial and capital markets, attracting capital and financing companies, making better and more useful decisions for investors to choose a company for profitable and safe investment, further research on the issue of financial reporting quality can be considered important. In some organized stock markets, procedures have been established to control changes in stock prices and are used by stock exchange officials, which are called automatic stops. This type of stock price control causes the stock price to not reflect the published information and the market becomes inefficient. According to the market efficiency hypothesis, any artificial interruption prevents the rapid adjustment of stock prices and intrinsic value [12]. Sudden changes in stock prices occur in two forms: stock price crashes and stock price jumps. Given the importance that investors attach to their stock returns, the phenomenon of stock price crashes, which lead to a sharp decrease in stock returns, is more considered compared to jumps [13]. According to the above, the main question of the research is whether the quality of financial reporting has a significant effect on the risk of stock price crashes, considering the moderating role of corporate governance.

2 | Literature Review

With the increasing need for information about business operations, presenting financial statements in the traditional way does not meet all the needs of users. Traditional financial reporting not only does not provide complete information to respond to business activities, but it is also unable to adequately and appropriately present the economic performance and business value of a company. In other words, with the expansion of business activities in the world, the use of today's traditional accounting systems has made it difficult to measure and evaluate the external effects of the organization's operations. Traditional accounting systems evaluate the performance of a business unit from specific aspects; in a way that cannot include the environmental and social effects of organizations [14]. Following the recent financial crises and bankruptcies of large companies, which were accompanied by an increase in fraudulent acts, doubts and concerns have been raised regarding the quality of financial reporting. Providing information on time can reduce information asymmetry and prevent profit management, and as a result, increase the quality of financial reporting. Given the nature of interim financial statements and the timeliness of the information provided in these reports, the research conducted, and the results obtained in the field of investors' attention to interim financial statements for useful economic decisions, it seems that more attention is necessary to the quality of interim financial reporting [15].

Financial reporting is a very important source for users and they use it for their decisions in economic and financial fields. The quality of financial reporting leads to effective and efficient decisions. The information published in financial reports must be presented on time. The timeliness of financial information increases the quality of financial reporting. Information that is published late does not have information value for investors and other users and causes lack of trust in financial reporting and lack of investment in The company is. Management has more information than other users of financial statements, which is called information asymmetry. Sometimes, management may manipulate and unrealistically show the profit figure for reasons such as receiving more benefits and bonuses, reputation and acceptance among the public, etc., which affects the quality of financial reporting. The more explicit the companies are about the figures in the financial reports, the greater the level of transparency. The quality of financial reporting is to develop transparency and publish a quality annual report through comprehensive and complete disclosure. The quality of financial reports has always been and is a subject of interest to boards of directors, shareholders, researchers and professional accountants themselves [16].

Financial reports are the final product of the financial reporting process, and the financial reporting process includes the creation, dissemination, and assurance of the use of financial information by the users of these reports, and its scope starts from the implementation of financial reporting standards for the preparation of financial reports and extends to their assurance, dissemination, and use. Users need useful information to make judgments and decisions in the capital market, evaluate contractual provisions, and manage management. The usefulness of information refers to the concept of information quality. The quality of

financial reporting is also a specific concept of information quality. The quality of financial reporting means the extent to which financial reports fairly reflect the underlying economics of the company. The quality of financial reporting is considered one of the most effective tools for showing company performance and shareholder value. Therefore, it is expected that all companies will show shareholder value in the best possible way. However, it seems that some companies tend to show their unfavorable situations in a different way. Providing attractive information to all interested parties improves the quality of investors' decision-making. Financial reporting is considered important as the final result of accounting information systems for users of financial information to present financial status and accountability, as well as in the role of management stewardship. Financial reports are the final product of the financial reporting process, and the financial reporting process includes the creation, publication, and assurance of the use of financial information by users of these reports, and its scope starts from the implementation of financial reporting standards for preparing financial reports and extends to their assurance, publication, and use. Financial reporting is the reporting of a firm's accounting information to users of that information. Therefore, financial reporting is considered to be a means of establishing communication between companies and their owners, beyond being mere financial reports. Management is responsible for disclosing financial and non-financial information [17].

The simple definition of disclosure is the transmission and presentation of economic information, whether financial or non-financial, quantitative or other forms of information related to the financial position and performance of the company. Disclosure implicitly refers to the presentation of minimum information in the company's reports in a way that can be used to make an acceptable assessment of the risks and relative value of the company and to assist users of the information in this regard. The purpose of providing financial reporting is to respond to the information needs and demands of external users. The main purpose of financial reporting is to express the economic effects of financial events on the position and performance of the business entity to assist external parties. According to the Accounting Standards Board, financial reporting includes not only financial statements but also tools or methods of information, and these tools deal directly or indirectly with information provided by accounting. That is, information about the company's resources, assets, liabilities, profits, etc. The Iranian accounting standards committee states in its financial reporting theoretical concepts that making economic decisions by users of financial statements requires assessing the entity's ability to generate cash and its certainty. Assessing the ability to generate cash by focusing on the situation financial, financial performance and cash flows of the business unit and its use in predicting expected cash flows and measuring financial flexibility are facilitated. Factors such as: the use of information technology in accounting and separation of financial reporting of production lines are effective in improving financial reporting [18].

According to the FASB, one of the goals of financial reporting is to provide information about the financial position, financial performance and financial flexibility of the business unit, and another goal is the accountability of managers to investors and owners, which is the same as the relationship of attorney and client (agency theory). Also, according to the FASB, financial reporting is not limited to the preparation and presentation of financial statements, but also includes other ways of presenting and interpreting information that is directly or indirectly related to financial information, and financial statements are only part of financial reporting [19]. Financial reporting should make information for evaluating the company, its performance, its sources of financing, as well as its profitability and ability to make profits available to all those who intend to examine the company for investment, lending, and other matters. This information is of great importance in increasing the quality of financial reporting, and increasing the quality of financial reporting can also lead to an increase in various investments in the company [20].

Risk is anything that threatens the present or future of an asset or the ability to earn income of a company, institution, or organization. The risk of an asset is the possible change in the future return from that asset. If the company's stock return in a specific financial period is lower than the return of the overall market index, the probability of a stock price fall increases, which is called the risk of a stock price fall [21]. A stock price fall is a phenomenon that is generally due to a bubble in the stock price. The company occurs and this is due to management actions such as delaying the release of bad news and accelerating the release of good news,

tax evasion, the continuation of projects with negative current value, lack of transparency of financial information and low self-confidence. The risk of a stock price crash is an undesirable event that is defined as a doubt about the extreme profitability of stocks [7]. The stock price crash is a contagious phenomenon at the market level and the decline in stock prices is not limited to just one specific stock, but includes almost all stocks of companies in that specific industry or even all companies active in the capital market [22].

In all financial markets in the world, one of the most important criteria for measuring the performance of the stock exchange is the stock price index. The index in each country is obtained from the sum of the stock price movements of all companies or a specific class of companies in the market according to a specific model and makes it possible to analyze the direction and size of price movements in the stock market. In fact, the expansion of financial theories and innovations over the past two decades, based on the central role of paying attention to the general movement of the market, has been accompanied by an increasing tendency to calculate and examine the movement trend of such indicators. The risk of a stock price crash refers to a sharp fall in the value of equity, which causes a sharp decrease in the wealth of shareholders. This downward movement creates serious concerns for investors and companies, because the risk of a stock price crash affects risk management and management decisions [23].

Corporate governance is specifically moving in a direction that moves the management of companies from the traditional model to a sustainable and fully robust model. This desirable system of corporate governance will ensure that companies effectively manage their assets and also provide benefits to stakeholders and ultimately to society. In a general view, corporate governance includes legal, cultural and institutional arrangements that determine the direction and performance of companies. The elements present in this scene are: shareholders and their ownership structure, board members and their composition, company management led by the CEO or Chief Executive Officer, and other stakeholders who have the opportunity to influence the company's movement. The goal of corporate governance is to ensure the existence of a framework that provides an appropriate balance between management freedom of action, accountability and the interests of the company's various stakeholders.

2.2 | Research Background

In [24] conducted a study to investigate the impact of sustainability, environmental, social and governance reporting on the risk of future stock price declines of companies listed on the Tehran Stock Exchange. The findings of the study showed that sustainability, environmental, social and governance reporting had a negative and significant impact on the risk of negative skewness of stock returns of the companies under study. In addition, the results indicated a negative and significant impact of sustainability, environmental, social and governance reporting on the low-to-high volatility of stock prices of companies listed on the Tehran Stock Exchange.

In [1] conducted a study to investigate the effect of auditor selection on the quality of financial reporting. The results of the study showed that auditor selection does not have a significant effect on the quality of financial reporting. In other words, there is no significant difference in the quality of financial reporting in companies that use large auditors to audit financial statements compared to other companies in the Iranian capital market.

In [25] investigated debt and stock price crash risk in a weak information environment of Chinese listed companies. The results showed that stock price crash risk is negatively related to the level of debt financing by Chinese companies. Regardless of the measures of financial leverage, types of corporate ownership and debt maturity structures are reported in stock prices. The findings showed that monitoring creditors reduces the impact of potential news.

In [23] studied the effect of debt on the risk of stock price collapse in a weak information environment. The results of the study showed that debt has a positive and significant relationship with the risk of stock price collapse, so with increasing debt, the risk of a company's stock price collapse increases. Debt also has a positive and significant relationship with the risk of stock price collapse in a weak information environment, so increasing debt in a weak information environment leads to an increase in the risk of stock price collapse.

In [26] conducted a study examining auditor gender and the risk of stock price collapse. The results showed that female auditors will lead to a reduction in the risk of stock price collapse, and its effect is dominant in companies with high agency costs.

In [27] in a study examined the effect of financial reporting quality on the risk of stock price collapse with emphasis on the effect of environmental uncertainty in companies listed on the Tehran Stock Exchange. The results of the study showed that financial reporting quality has a negative and significant effect on the risk of stock price collapse. On the other hand, environmental uncertainty has a positive and significant effect on the relationship between financial reporting quality and the risk of stock price collapse.

In a research, [28] studied the effect of financial reporting quality on the risk of stock price crash with regard to the moderating role of audit quality. The results of the study showed that financial reporting quality has an effect on the risk of stock price crash. Audit quality also has an effect on the relationship between financial reporting quality and the risk of stock price crash.

2.3 | Hypotheses Development

According to the theoretical foundations and the stated background, the research hypotheses as follows:

H1: there is a significant relationship between the quality of financial reporting and the risk of stock price collapse.

H2: corporate governance has a moderating effect on the relationship between financial reporting quality and stock price crash risk.

3 | Research method

The present study is an applied research in terms of purpose, a descriptive post-event research in terms of method, a positive research in terms of theory, and an inductive research in terms of reasoning, as well as a quasi-experimental research in the field of financial accounting research. This study examines the effect of financial reporting quality on the risk of stock price collapse with respect to the moderating role of corporate governance of companies listed on the Tehran Stock Exchange. The time period of this study is the Six-year period from 2019 to 2024. The statistical sample of the study is 110 companies selected by systematic (purposeful) elimination method. In this study, a multivariate linear regression model has been used to test the hypotheses. The statistical method used in this study is the panel data method. For statistical analysis of the data, Excel and Eviews10 software have been used. PLS has been performed. For this purpose, the statistical sample of this study is those companies listed on the Tehran Stock Exchange that meet the following conditions:

- I. Not be a bank, financial institution, investment, holding or leasing company.
- II. The company must be listed on the stock exchange by the end of 2018 and not delisted from the stock exchange between 2019 and 2024.
- III. To ensure comparability, the company's fiscal year must end on March 29 of each year.
- IV. The company must not have changed its fiscal year between 2019 and 2024, and the company's financial statements and information must be available.

3.1 | Independent Variable: Financial Reporting Quality

According to the research of Jones [29] and Iqbal et al. [30], it is calculated through the Jones adjusted accruals index as follows:

$$\frac{TA_{it}}{Assete_{i,t-1}} = \alpha_1 \frac{1}{Assete_{i,t-1}} + \alpha_2 \frac{\Delta REV_{it} - \Delta REC_{it}}{Assete_{i,t-1}} + \alpha_3 \frac{PPE_{i,t}}{Assete_{i,t-1}} + \varepsilon_{it} \quad (1)$$

where:

$TA_{i,t}$: Total assets at the end of the current period.

$Asse_{i,t-1}$: Total assets at the end of the previous period of the company i in the year $t-1$.

$\Delta REC_{i,t}$: Change in the amount of accounts receivable at the end of the company's i current period in the year t .

$\Delta REV_{i,t}$: Change in income at the end of the current period company i in year t .

$PPE_{i,t}$: Net property, plant and equipment at the end of the current period company i in year t .

3.2 | Dependent Variable: Risk of Stock Price Crash

In order to measure this variable, the criteria of Hutton et al. [2] and Kim et al. [31] have been used. The mentioned researchers have used two criteria to calculate the dependent variable of stock price risk: the probability of a stock price crash (Crash) and the measure of Negative Skewness of Stock Returns (NCSKEW). The first criterion is the main criterion of the research, which due to its fictitious nature, logistic regression has been used in the tests. The second criterion, due to its nature of being a continuous quantity, has been used solely to conduct an additional test and to further confirm the result obtained from the first regression model; therefore, linear regression has been used to examine it. For example, Hutton et al. [2] estimate the following regression model whose residuals show the specific returns of each company:

$$R_{i,t} = \beta_0 + \beta_1 R_{m,t-2} + \beta_2 R_{m,t-1} + \beta_3 R_{m,t} + \beta_4 R_{m,t+1} + \beta_5 R_{m,t+2} + \epsilon_{i,t} \quad (2)$$

Following Hutton et al. [2] and Kim et al. [31] consider periods of price collapse for a stock as periods of the year in which the numerical value of specific returns (W_i) is less than $3/2$ of the standard deviation minus their mean in that year. Therefore, if in a year under study the value of one or more of the W s obtained is less than $3/2$ of the standard deviation below the mean, it means that a stock price collapse occurred in that year and in that case the variable is a crash indicator.

3.3 | Moderator Variable: Corporate Governance

In this study, corporate governance components are entered into the model as moderating variables and include: institutional ownership and the proportion of non-executive directors.

3.4 | Control Variables

- I. Company size ($Size_{it}$): calculated as the natural logarithm of total assets.
- II. Return on assets (Ro_{ait}): the ratio of net profit to total assets of the company at the end of the fiscal year.
- III. Financial leverage (Lev_{it}): calculated as total liabilities over total assets.

3.5 | Research Hypothesis Test Models

$$CRASH_{i,t+1} = \alpha_0 + \alpha_1 FRQ + \alpha_2 ROA + \alpha_3 Lev + \alpha_4 Size + \epsilon_i \quad (2)$$

$$CRASH_{i,t+1} = \alpha_0 + \alpha_1 FRQ + \alpha_2 TazG + \alpha_3 Inst + \alpha_4 (FRQ * TazG) + \alpha_5 (FRQ * Inst) + \alpha_6 ROA + \alpha_7 Lev + \alpha_8 Size + \epsilon_i \quad (3)$$

CRASH: risk variable for stock price crash.

Financial Reporting Quality (FRQ): this study uses accruals, which include discretionary and non-discretionary accruals. Accruals are the difference between operating profit and cash from operating activities.

TazG: number of non-executive members: the number of people who are not on the board of directors but have a role in the company's stock price.

Inst: percentage of institutional investors (institutional ownership).

4 | Analysis of Findings

4.1 | Descriptive Statistics of Research Variables

Table 1. Descriptive statistical results.

| Skewness | Standard Deviation | Minimum | Maximum | Median | Mean | Variable |
|----------|--------------------|---------|---------|---------|---------|----------|
| 2.2310 | 0.2170 | 0.7301 | 2.0391 | -0.0152 | 0.0183 | FRQ |
| -1.0645 | 0.2345 | 0.0000 | 1.0000 | 0.8000 | 0.6584 | TAZG |
| 1.4308 | 1.3985 | 10.8166 | 18.6896 | 13.4356 | 13.5860 | SIZE |
| 0.2073 | 0.1043 | -0.3127 | 0.4207 | 0.0772 | 0.0934 | ROA |
| 0.0846 | 0.1782 | 0.2310 | 1.1437 | 0.6481 | 0.6395 | LEV |
| -0.2476 | 0.2994 | 0.0000 | 0.9603 | 0.5542 | 0.5001 | INST |
| 0.2638 | 0.4967 | 0.0000 | 1.0000 | 0.0000 | 0.4346 | CRASH |

In order to test the non-collinearity between the research variables, the correlation between the variables is presented in *Table 2*. A correlation coefficient of less than 0.7 (Pearson coefficient) between the variables indicates non-collinearity between the variables and the accuracy of the final specified models. The results indicate that most of the variables are not linearly related to each other.

Table 2. Correlation results for the data collinearity test.

| CRASH | INST | LEV | ROA | SIZE | TAZG | FRQ | |
|-------|-----------|-----------|------------|------------|------------|------------|-------|
| | | | | | | 1 | FRQ |
| | | | | | 1 | 0.0759738 | TAZG |
| | | | | 1 | -0.1163511 | 0.1291681 | SIZE |
| | | | 1 | -0.0128082 | 0.1402261 | 0.1908323 | ROA |
| | | 1 | -0.6061265 | 0.1867747 | -0.2460781 | -0.0531581 | LEV |
| | 1 | 0.1414072 | 0.0438183 | 0.0245254 | 0.0667952 | 0.1415592 | INST |
| 1 | 0.0068052 | 0.0707824 | -0.1971656 | -0.0083744 | -0.0046053 | 0.0980231 | CRASH |

4.2 | Inferential Analysis of Research Data

Table 3. The results of the Manai test for the variables - the test values and the significance level observed for each of the variables.

| The Significance Level | The Value of the Test Statistic | Variable |
|------------------------|---------------------------------|----------|
| 0.0000 | -28.2013 | FRQ |
| 0.1897 | 52.0305 | TAZG |
| 0.0468 | 115.941 | SIZE |
| 0.0127 | 110.509 | ROA |
| 0.0294 | 120.421 | LEV |
| 0.5212 | 94.6028 | INST |

As can be seen, for all variables except the percentage of non-executive directors and institutional ownership, the probability (P-Value) in the unit root test is smaller than 0.05, which indicates that the variables are stationary. This means that the mean and variance of the variables over time and the covariance of the variables between different years have been constant. As a result, using these variables in the model does not cause spurious regression. For the percentage of non-executive directors and institutional ownership variables, we examine their stationary "on the first difference".

Table 4. The results of the Manai test for the variables - the test values and the significance level observed for each of the variables

| Probability | Statistic | Variable |
|-------------|-----------|----------|
| 0.0164 | 51.3652 | TAZG |
| 0.0007 | 136.841 | INST |

Table 5. Results of LM Arch heteroscedasticity test.

| Test Level | Significance Level | The Value of the Test Statistic | Description | Model |
|------------|--------------------|---------------------------------|---------------|-------|
| 0.05 | 0.6514 | 0.204617 | F-statistic | 1 |
| 0.05 | 0.6499 | 0.206045 | Obs*R-squared | |
| 0.05 | 0.7009 | 0.147917 | F-statistic | 2 |
| 0.05 | 0.6995 | 0.148983 | Obs*R-squared | |

4.3 | Examining the Relationship between Research Variables

Table 6. Results of the F-limer test.

| Test Level | Significance Level | Degree of Freedom | The Value of the Test Statistic | Description | Model |
|------------|--------------------|-------------------|---------------------------------|-----------------|-------|
| 0.05 | 0.9771 | 51.204 | 0.621361 | Cross-section F | 1 |
| 0.05 | 0.9632 | 51.202 | 0.653455 | Cross-section F | 2 |

Table 7. Regression test results.

| CRASH_{i,t+1} = α0 + α1FRQ + α2ROA + α3Lev + α4Size + εi | | | | | | |
|---|---------------------------------------|--------------------|-----------|------------------------|-------------|------------------------------|
| Dependent Variable: Risk of Stock Price Crash | | | | | | |
| Significant Probability | Relationship Type | Significance Level | T-status | The Standard Deviation | Coefficient | Variable |
| %95 | Significant negative | 0.0187 | -2.358703 | 0.013773 | -0.032488 | FRQ |
| %95 | Significant negative | 0.0004 | -3.565224 | 0.372226 | -1.327071 | ROA |
| %95 | Meaningless negative | 0.2648 | -1.117528 | 0.218221 | -0.243867 | LEV |
| %95 | Meaningless negative | 0.8137 | -0.235859 | 0.022251 | -0.005248 | SIZE |
| %95 | Positively significant | 0.0228 | 2.290183 | 0.310312 | 0.710652 | C |
| Model Indicators | | | | | | |
| 0.348748 | Adjusted coefficient of determination | | | | 0.363439 | Coefficient of determination |
| 2.01434 | Watson camera | | | | 4.318155 | f statistics |
| | | | | | 0.002135 | f Significant probability |

Table 8. Regression test results.

| $\text{CRASH}_{i,t+1} = \alpha_0 + \alpha_1 \text{FRQ} + \alpha_2 \text{TazG} + \alpha_3 \text{Inst} + \alpha_4 (\text{FRQ} * \text{TazG}) + \alpha_5 (\text{FRQ} * \text{Inst}) + \alpha_6 \text{ROA} + \alpha_7 \text{Lev} + \alpha_8 \text{Size} + \varepsilon_i$ | | | | | | |
|--|---------------------------------------|--------------------|-----------|------------------------|-------------|------------------------------|
| Dependent Variable: Risk of Stock Price Crash | | | | | | |
| Significant Probability | Relationship Type | Significance Level | T-status | The Standard Deviation | Coefficient | Variable |
| %95 | Significant negative | 0.0190 | -2.351773 | 0.005770 | -0.013571 | FRQ |
| %95 | Meaningless negative | 0.9848 | -0.019081 | 0.134403 | -0.002564 | TAZG |
| %95 | Positive meaningless | 0.8547 | 0.183251 | 0.104726 | 0.019191 | INST |
| %95 | Significant negative | 0.0005 | -3.540266 | 0.377672 | -1.337062 | ROA |
| %95 | Meaningless negative | 0.2694 | -1.106846 | 0.228745 | -0.253185 | LEV |
| %95 | Meaningless negative | 0.8194 | 0.228506- | 0.022423 | -0.005124 | SIZE |
| %95 | Positively significant | 0.0387 | 2.078601 | 0.340923 | 0.708642 | C |
| Model Indicators | | | | | | |
| 0.348748 | Adjusted coefficient of determination | | | | 0.363439 | Coefficient of determination |
| 2.01434 | Watson camera | | | | 4.318155 | f statistics |
| | | | | | 0.002135 | f Significant probability |

5 | Discussion and Conclusion

First hypothesis: it examines the existence of a relationship between the quality of financial reporting and the risk of stock price collapse of companies listed on the Tehran Stock Exchange. According to the results of the test of *Model (1)*, as shown in *Table 7*, it is observed that the significance level of the F-statistic, which indicates the significance of the entire regression, is 0.0021, indicating that the model is significant at a 95% confidence level. The adjusted R² coefficient of determination is 0.348748, indicating that approximately 35% of the changes in the dependent variable can be explained by the independent and control variables of the model. In order to test the absence of autocorrelation in the model, the Dorbin-Watson statistic is used. If this statistic is in the range of 1.5 to 2.5, it indicates the absence of autocorrelation between the residuals. This statistic is equal to 2.014 based on the findings of the table, which indicates the absence of an autocorrelation problem and is acceptable. As can be seen from the table, the coefficient of the financial reporting quality criterion is equal to -0.32488. Considering the T-statistic and the significance level of this variable, the results indicate that this coefficient is significant at the 5 percent error level. These findings show that the quality of financial reporting has a significant negative relationship with the risk of stock price collapse of companies listed on the Tehran Stock Exchange. In other words, increasing the quality of financial reporting reduces the risk of stock price collapse. As a result, the hypothesis H₀ of the research is rejected.

The second hypothesis: it examines the moderating effect of corporate governance criteria on the relationship between financial reporting quality and the risk of stock price collapse of companies listed on the Tehran Stock Exchange. *Table 8* shows the results of the test of *Model (2)*. As can be seen, the significance level of the F statistic, which indicates the significance of the entire regression, is 0.0102, indicating that the model is significant at a 95% confidence level. The adjusted coefficient of determination is 0.37135, indicating that approximately 37% of the changes in the dependent variable can be explained by the independent and control variables of the model. The Dorbin-Watson statistic is used to test the absence of autocorrelation in the model. If this statistic is in the range of 1.5 to 2.5, it indicates the absence of autocorrelation between the

residuals. This statistic is equal to 2.0160 based on the findings of the table, which indicates the absence of an autocorrelation problem and is acceptable. As can be seen in the table, the coefficient of corporate governance criteria, which Include Institutional Ownership (INST) and the percentage of non-executive directors (TAZG), is equal to 0.019191 and -0.002564, respectively. Considering the T-statistic and the significance level of this variable, the results indicate that this coefficient is meaningless at the 5 percent error level. In other words, institutional ownership and the percentage of non-executive directors as corporate governance criteria do not have a moderating role in the relationship between the quality of financial reporting and the risk of stock price collapse of companies listed on the Tehran Stock Exchange, as a result, the hypothesis H_0 of the research is confirmed.

The first hypothesis examined the relationship between financial reporting quality and stock price crash risk. The results of the study indicate that there is a negative and significant relationship between financial reporting quality and stock price crash risk at the 95% confidence level. That is, it decreases with an increase in another variable. In the second hypothesis, the effect of institutional ownership and the percentage of non-executive directors as corporate governance criteria on the relationship between financial reporting quality and stock price crash risk of companies listed on the Tehran Stock Exchange was examined. The results indicate that these coefficients are meaningless at the 5% error level. In other words, institutional ownership and the percentage of non-executive directors as corporate governance criteria do not have a moderating role on the relationship between financial reporting quality and stock price crash risk.

Author Contributions

Four times authors contributed to all stages of the research, including design, analysis, and writing, and have approved the final version of the manuscript.

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Data Availability

The data used in this study are available to the authors and can be provided upon request.

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