



Investigating the strength of downside risk of stocks and the relationship between accountants and clients in companies in Tehran Stock Exchange

Mohammad Reza Safari Chakri*

Master of Accounting, Faculty of Humanities, Tabriz Azad University, Sarab Branch, Tabriz, Iran

Abstract

In this study, in three models of CRASH - negative skewness of NSKEW stock returns - DUVOL bottom-up fluctuation stock risk has been calculated. The statistical sample of this research includes 96 companies listed on the Tehran Stock Exchange studied in the period 2014 to 2016. The ordinary least squares regression model was used using the combined data method to test the hypotheses. The results of the first hypothesis indicate that in the CRASH model, at the level of 97% confidence of the auditor-customer relationship, there was no significant relationship with the risk of the future stock falling in companies listed on the Tehran Stock Exchange. However, at the level of 92% confidence, the auditor-customer relationship has a significant relationship with the risk of future shares falling in companies listed on the Tehran Stock Exchange. In the NSKEW model, at a confidence level of 97% and 92%, the auditor-customer relationship has no significant relationship with the risk of the future stock falls in companies listed on the Tehran Stock Exchange. In the DUVOL model, at the level of 97% and 92% confidence, the auditor-customer relationship has a significant relationship with the risk of future stock fall in companies listed on the Tehran Stock Exchange. Therefore, the auditor-customer relationship with the risk of the future stock falling in different models in companies listed on the Tehran Stock Exchange is significantly different. The results of the second hypothesis indicated that in the CRASH and NSKEW models, with the increase of the auditor-customer relationship, the risk of future shares falling in the companies listed on the Tehran Stock Exchange decreases. But in the DUVOL model, with the increase of the auditor-customer relationship, the risk of future shares falling in the companies listed on the Tehran Stock Exchange does not decrease. Therefore, with the increase of auditor-customer relations, the risk of the future stock falling in different models in companies listed on the Tehran Stock Exchange does not decrease.

Keywords

Auditor-customer relationship, future stock fall, stock returns

1. Introduction

Independent auditors play an important role in the capital market due to the validation of financial

* Corresponding author: Mohammad Reza Safari Chakri, Master of Accounting, Faculty of Humanities, Tabriz Azad University, Sarab Branch, Tabriz, Iran

E-mail-Address: mohamadrezasafariy@gmail.com

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statements published by public companies and as a result of reducing information risk (Karbasi Yazdi et al., 2014). The sanctity and value of this audit role depend on the nature of auditors' testimony. It is argued that a long-term relationship between the auditor and the client may cause the auditor to be negligent in performing the auditors' testimony role. The weakness of the auditor's independence is also an important issue of great concern. The proposed solution is to force the auditors to turn.

For this reason, the recently forced rotation of auditors has attracted a great deal of attention in legal circles. Proponents of auditor change believe that auditors will be able to withstand pressures in the event of a forced change. Resist the demands of managers and enforce impartial judgments. The long-term presence of the auditor with an employer creates a tendency to retain the views of the client's management, a situation that undermines his independence and impartiality. In order to maintain their credibility and reputation, auditors prevent inappropriate behavior. Auditors gain a more comprehensive understanding of the overall system of client activities over time and their ability to judge whether accounting and reporting procedures are appropriate increases thus the auditor's long-term relationship with the client improves the quality of the audit (Sesadat Helber, 2016).

On the other hand, a fall in stock prices has the following characteristics: a) A fall in stock prices is a large and unconventional change in stock prices that occurs without the occurrence of a major economic event; b) These large changes are negative; a fall in stock prices is a Market-level contagion is a phenomenon that means that stock price reductions are not limited to one particular stock, but include all types of stocks available in the market (Sesadat Helber, 2016).

Therefore, in general, the fall in stock prices is a phenomenon in which stock prices are subject to severe negative and sudden adjustments. The management of the company, which due to selfish or benevolent motives) in the direction of the organization's goals (using the accounting system, attempts to deafen the company's performance by delaying the publication of bad news and accelerating the publication of good news) are finance and creating a bubble in the company's stock price.

On the other hand, special attention to the quality of the audit and the auditor-customer relationship was performed on the financial statements, due to the seriousness and accuracy of the review, limits the opportunistic behavior of managers and causes timely identification of losses and delays in recognizing profits. Moreover, in order to gain or maintain their reputation and credibility, auditors intend to conduct more thorough investigations, avoid lawsuits and deprivations, and increase the quality of financial information, resulting in the transparency of companies' financial information increases (Maghsoudi, 2012). Therefore, it is necessary to conduct this research beforehand to examine the effect of the auditor-customer relationship on the risk of future stock falls.

2. Auditor-customer relationship

Due to drastic environmental changes, the managers of auditing firms must be flexible and customer-oriented. Therefore, the managers of audit firms must upgrade their firms' capabilities and professional capabilities faster than their clients to optimize the effectiveness of audit operations. Customer relationship management is a strategy designed to communicate with the customer in the long run. In fact, customer relations was designed as a tool based on customer needs, which is to achieve customer satisfaction and value creation for organizations. In many strategic management issues, customer relations is a coherent technology for processing customer information that is used to support service, business, and customer relationship development activities.

Auditor tenure studies examine whether the long-term auditor-client relationship affects audit quality. The argument for changing the auditor is that the long tenure impairs the auditor's independence. The opposite argument is that auditors have strong economic incentives to maintain independence and that internal mechanisms such as staff turnover are sufficient to maintain auditors' independence and professional skepticism. Business and reporting issues become the owner and

therefore, the quality of auditing increases ([Rahimi & Nezampour, 2016](#)).

Given these cases, it can be assumed that the auditor's tenure positively affects the quality of financial information or that investors evaluate the longest tenure as a negative sign and cause information uncertainty. The auditing organization, as a legislative figure in the principles and rules of accounting and auditing in the country, is stated in the publication of 123 Code of Professional Conduct as follows:

Hiring senior staff in connection with an employer for many years may be a threat to independence, and in such circumstances, an independent professional accountant should take steps to ensure that independence and impartiality are maintained.

Control measures and safeguards that can be done in this regard are the rotation of senior members of the assurance team, the involvement of an additional professional accountant to review the work done by senior members or consult if necessary, and finally, checking the quality of work internally but independently. In this regard, the International Federation of Accountants states in its Code of Professional Conduct: When auditing partners are limited with the necessary experience and knowledge, partner rotation may not be adequate protection, and other protections should be applied in this regard, such as involving a professional accountant. Others from inside or outside the institution to review the work done or, if necessary, to consult with a non-confident team. Accounting professional associations and professional supervisory organizations have long been concerned about the impact of a long-term tenure of an auditor by an auditor, and professional supervisory organizations refer to it as a threat to audit quality because of the negative effects of long-term tenure on auditor independence. Accordingly, they sought to limit the length of the auditors' tenure at the level of the auditing firm or audit partners. Accepting companies' reporting methods will mean reducing the quality of the audit by increasing the length of the audit tenure.

On the other hand, some people believe that increasing the length of the tenure increases the audit quality because auditors need to know the client's specific business to improve the quality of the audit, and this knowledge is gained over time. Therefore, this group believes that increasing the length of the tenure will increase the quality of the audit. One of the approaches adopted in most countries to limit the length of the audit tenure is the use of a policy of mandatory rotation of audit partners, which in Iran, according to the instructions of the Exchange Organization, audit firms are not allowed after four years to accept a single company again as an independent auditor and statutory auditor.

3. Stock risk

If managers can refrain from disclosing bad news for a long time, negative news will accumulate within the company. On the other hand, the amount of bad news that managers can accumulate is limited. This is because when the volume of negative news accumulated reaches a certain threshold, it will be impossible to maintain and not disclose it for a longer period of time. As a result, a mass of unfavorable news enters the market at once after reaching its peak, and this issue has led to a sharp drop in stock returns or a fall ([Gujarati, 2008](#)). These changes occur in the form of falling and jumping stock prices.

They proved that the study of historical data related to the stock market price of stocks showed that in cases where the stock price index has been declining, the correlation between different types of stock options has increased, the amount of negative information that managers can accumulate and hide varies from company to company. Managers' opportunities to accumulate and not disclose negative news depend on its costs and benefits, for example, in situations where there is no information asymmetry between managers and investors, managers have no incentive to disclose information asymmetrically because, in such circumstances, non-disclosure of negative news will outweigh its benefits. However, when information asymmetry between managers and investors is high, the costs of not disclosing

negative news and accumulating it within the company will be less than its benefits. Therefore, managers will be motivated to send negative news. In this regard, many researchers, such as [Sesadat Helber \(2016\)](#) believe that changes in a company's stock price result from its internal information management, in the event that information enters the market randomly. The information dissemination process is not considered good or badness is done systematically; in other words, if managers disclose all the information quickly, this will cause the stock returns to be symmetrically distributed, which means that the average positive return on good news should be the average volume of negative returns in relation to bad news ([Ali Turki, & Asdnia, 2017](#)). However, managers are always motivated to hide negative information and news from investors and accumulate it within the company. For example, they may reduce costs and report higher profits in the financial statements by including the costs of a period as an asset. The result of this operation is that the image of the business unit looks better than the real situation, and the incentive for outsiders to invest in the business unit increases. And issues related to the tenure and credibility of managers arise ([Watts, 2003](#)).

4. Internal Research Background

[Salehi et al. 2017](#) in a study, examined the effect of auditor expertise in industry on the relationship between accounting conservatism and the risk of future stock price falls in companies listed on the Tehran Stock Exchange. Experimental research findings indicated that the expertise of the independent auditor in the industry improves the quality of auditing. Auditors are also expected to reduce the risk of stock price falls through their intelligence and leadership role by reducing agency costs, aligning the interests of managers and investors, reducing violations by managers, improving operational decisions, and increasing the quality of reporting. Therefore, this study investigates the effect of independent auditor expertise in the industry on the relationship between accounting conservatism, and the risk of future stock price falls in companies listed on the Tehran Stock Exchange. For this purpose, four hypotheses to compile this issue and data related to 99 member companies of the Tehran Stock Exchange for the period between 2005 to 2015 were analyzed. The regression pattern of the research was examined and tested using the panel data method with fixed effects. The results show that, first, the auditor's expertise in the industry has a significant negative effect on accounting conservatism. Second, the auditor's expertise in the industry and accounting conservatism have a significant negative effect on the risk of future stock price falls. The results also showed that the auditor's expertise in the industry has a significant positive effect on the relationship between accounting conservatism and the risk of future stock price falls.

[Sadat Helber \(2016\)](#), in a study to investigate the effect of auditor expertise in the industry on the risk of stock price, falls, examined this issue from a five-year sample of 133 companies listed on the Tehran Stock Exchange during the period. Moreover, in order to measure the quality of auditing, the component of auditor expertise has been considered. The results showed a significant negative relationship between the amount of auditor expertise in the industry and the risk of falling stock prices. Using the study results, it can be argued that with increasing auditor expertise in the employer industry, a reduction in the risk of stock falls in listed companies is expected.

In a study, [Sharifi and Jabbarzadeh \(2016\)](#) examined the relationship between comparability of financial statements and the risk of future stock price falls. The conclusion of the model for testing the research hypothesis using the first criterion (Crash), and also using the second criterion (Duvol) indicated that the ability to compare financial statements has a positive and significant effect on the risk

of future stock price falls, in other words, by increasing the comparability of financial statements, the probability of falling stock prices increases in the future. By increasing the comparability of a company's financial statements with similar companies, in analyzing that company's stock price, investors find the news and information of other companies more useful and use industry-level information and market information in their transactions. Managers have the opportunity to keep confidential information and bad news hidden from the company, but keeping bad news inside the company by managers can continue to a peak. After that, the volume of bad news suddenly enters the market and causes stock prices to rise. The company suddenly had a sharp decline.

Karbasi Yazdi et al. (2014) in a study, examined the relationship between explaining the relationship of auditors with the knowledge of their customers and its effect on audit quality. The study population of official accountants in Tehran is 282 people, with a random sample size of technical managers and audit partners. One hundred sixty-two people were identified. The research tool was a questionnaire that the variables were measured with related questions. The structural equation method and LISREL software were used, and the results indicated that from the point of view of the auditor partner and the technical director of the audit, Customer knowledge has a significant relationship with audit quality and this relationship is also directional. Moreover, with further investigation, we concluded that customer knowledge has a significant effect on customer satisfaction, tenure, customer importance, and customer image. This effect was positive direction a study examined the relationship between the audit partner's turnover and the risk of falling stock prices.

In a study, Ali Torki and Asdenya (2016) examined the relationship between audit partner rotation and the risk of stock price falls. Auditors' independence is an important issue in the reliability of auditors' reports. On the other hand, a company's stock price rises from its internal information management. One of the possible ways to reduce the risk of stock price falls is the mandatory rotation of institutions and audit partners. The aim of this study was to investigate and evaluate the relationship between audit partner rotation and stock price risk in companies listed on the stock exchange. It is an applied type that was done descriptively.

The data collection method is a library in which the statistical population includes all companies listed on the Tehran Stock Exchange between 2005-2015, and 120 companies were selected as a sample and analyzed. In this study, after extracting the required information from the mentioned sources, the regression models were calculated using Eviews software. The present study results showed that the higher the turnover of the auditing partner, the lower the risk of falling stock prices in these companies, and this indicates that the work of auditors is of the required quality.

Khanaghah et al. (2019) in a study, investigated the effect of industry expertise, audit tenure, and auditor independence on a stock price decline. The information required for this research has been collected from the financial statements of 81 companies in the period 2010-2014. In this study, the quality of auditing has been measured through the criteria of auditor expertise in the industry, auditor tenure, auditor independence, and the size of the auditing firm. Findings from testing the research hypotheses showed that there was an inverse and significant relationship between audit quality characteristics and stock price decline. So that increasing the quality of the auditor leads to reducing stock price decline. In other words, closer and better supervision due to the prevention of opportunistic work by management and the accumulation of bad news leads to an increase in the value of the company's stock at the time of pricing.

5. Foreign research literature

In a study, [Khanaghab et al. \(2019\)](#) examined the relationship between stock risk and auditor-customer relationship. Examples of this study include a large number of US state-owned companies under the supervision of four major auditing companies in the world. It indicates that the period of audit tenure is significant, with the risk of the stock falling from one year ago negatively. Evidence from this study showed that the knowledge gained from the client-auditor relationship increases the auditor's ability to detect errors and bad news, thus reducing the risk of stock risk falling. Other findings of this study also showed that investors do not fully include the information that exists about auditors and the client in predicting future stock price falls.

[Salehi & Alkhyoon \(2021\)](#) in a study entitled Comparability of financial statements and expected stock price risk, examined the effect of comparability on the risk of future stock price falls. Their results showed the ability to compare financial statements to the risk of falling stock prices. They also concluded that this effect is greater for companies whose executives hide negative news.

6. Statistical methods used

Since the linear models used in this research include regression models, so, in this section, a brief description of this type of model and its classical assumptions is given. For any econometric analysis, the availability of accurate data must be considered. Three types of data are generally available for experimental analysis:

- (a) Time-series: Time series data is data that is collected over a period of time. Such data can be collected at daily, weekly, monthly, seasonal and annual intervals.
- (b) Cross-sectional data: Cross-sectional data are collected based on one or more variables for a specific period.
- (c) Composite data

In many recent studies, composite data sets have been used for analysis. In this way, several companies, households, countries, etc., have been studied and analyzed over time. In composite data analysis, a very information-rich environment is provided for the development of estimation techniques and analyzable results. In many cases, researchers can use composite data for cases that cannot be studied only in time series or only cross-sectionally.

There are two ways to do this: (A) in the first method; it is assumed that there is no difference between the sections and therefore, all sections are estimated together, which is also known as the combined method. (B) In the second method, it is assumed that there is a significant difference between sections that these significant differences can affect the slope or width of the origin, which in this method is called panel data. In order to determine which method is suitable for estimation, hypotheses have been tested in which it is assumed that all estimated fixed expressions are equal to each other. In this way, whether the panel data or integrated data method is more efficient for the desired estimation direction in regression analysis can be determined. Econometrics is a science that measures and explains economic relations using appropriate methods and tools. Regression is the main tool and cornerstone of econometrics. In regression analyzes, the dependence of one variable (dependent variable (on one or more other variables) independent variable is mainly studied. In general, regression models are divided into single equation models and simultaneous equations. The dependent variable is expressed as a

function of one or more other independent variables, assuming that the causal relationship between the dependent and independent variables is one-way, while in simultaneous equations, there is a two-way or simultaneous relationship between these variables. The ancillary models used in this research are single equation models and the main models are simultaneous equations. The common methods used to estimate these models are described in the next section.

7. Ordinary least squares method (OLS)

For linear regression models, the ordinary least squares method (OLS) is the simplest and most common method of estimation. The rationale for the ordinary least squares method is that the coefficients of the model take values that the sample regression model is closest to the observations; in other words, the least OLS method for estimating the coefficients does not require any condition on the perturbation sentence, but in order for the estimated coefficients to be oblique (without bias) and statistical inference is possible through them, the classical assumption of linear regression is established. It is mandatory that if statistical tests after OLS confirm a violation of one of the classical assumptions, an estimation can no longer be performed using the OLS method. Either the model or the estimation method must be changed (Gujarati, 2008).

8. Generalized least squares method (GLS)

If the statistical tests after OLS confirm a violation of one of the classical assumptions, it can no longer be estimated using the OLS method. In this case, either the model or the estimation method must be changed, which in cross-sectional data, we expect variance heterogeneity and in time series data we expect self-correlation or variance of heterogeneity; the generalized least squares method (GLS) can be used to estimate the coefficients. However, the use of this method requires conjectures about the variance-covariance matrix of perturbation sentences, in which case, the variance matrix is used. The covariance of the disruptive sentences of the OLS model is estimated as a starting point, and iterative methods can be helpful.

In the ideal case, the estimation scheme is used in such a way that observations obtained from a society with more variability weigh less than the ordinary least squares method and does not follow this procedure and therefore does not use information that indicates the variability of the independent variable, but the generalized least squares method is able to estimate the best linear estimation without bias (Mir Sanei, 2006).

9. Classical assumptions of linear regression model

The linear regression model based on five classical assumptions is as follows:

Hypothesis 1: The mean of the perturbation components (ets) is zero $= 0 = (E(et))$.

This assumes that the mean value of the perturbation components (ets) in terms of the hypothetical x_t is zero.

Supposed X_s are distributed around the mean value, some of which are above average and some below.

Hypothesis 2: Lack of autocorrelation between perturbation components ($et = 0$ (Cov(e_i, e_j)).

This hypothesis states that there is no correlation between the perturbation components e_i and e_j . Technically, this assumption indicates the absence of serial correlation or the absence of self-correlation,

in other words, after each positive e_i , there is another positive e_i , or after each negative e_j , there is another negative e_j .

Hypothesis 3: homogeneity (variance between perturbation components) $\text{Ets } () \text{ } 2\text{Var } (e_t) = 6 (.$

This assumption states that the variance of e_t for each x_t is a positive number equal to 26. Statistically, the equation $2\text{Var } (e_t) = 6$ shows the assumption of homogeneity of equal scattering or variance.

Hypothesis 4: Zero covariance between e_t and x_t are explanatory non-random variables ($\text{Cov } (e_t = x_t = 0)$).

This hypothesis states that the perturbation component of e_t and the explanatory variable x_t are uncorrelated, and the rationale for this assumption is as follows: If x and e are both related, it is not possible to detect the specific effect of each on the variable Y . Therefore if x and e are positively correlated, x increases with increasing e and decreases with decreasing e , and if there is a negative correlation between the two, their changes will be in the opposite direction to each other, thus separating the effect of x will be difficult on Y .

Hypothesis 5: The regression model is precisely specified (no bias error or specification.)

This assumption is first to remind that regression analysis. Consequently, the results based on this analysis depend on the selected model and warn that one should be very precise in formulating econometric models ([Gujarati, 2008](#)).

9.1. Test of significance of individual effects (F Limer)

To choose between panel data methods and integrated data, the F-Limer statistic is used. In this test, the 0H hypothesis indicates that the width of the sources is the same (integrated data) and the opposite hypothesis of 1H indicates the heterogeneity of the width of the sources (panel data method). Therefore, it can be written: Data method H 0: $\alpha_1 = \alpha_2 = \dots = \alpha$ Combined panel data method. At least one width of the sources is different from the others: 1H If the calculated P-value is greater than the error level of 5%, the null hypothesis is not rejected and the method must be rejected, and consolidated data should be used ([Khanaghah et al., 2019](#)).

9.2. Hausman test

If the null hypothesis is rejected after performing the F-dimensional test, the question arises as to which of the fixed or random effects methods to estimate the model. The Hausmann test statistic is used to determine whether the difference in cross-sectional units is constant or random. In the Hausmann test, hypotheses 0H and 1H are defined as follows:

H0: $bs = \beta \wedge s$ Random effects

H1: $bs \neq \beta \wedge s$ fixed effects

If the calculated P-value is greater than the 5% error level, the null hypothesis is not rejected and the random effects method should be used, if this hypothesis is rejected, the fixed effects method will be the criterion for analysis ([Baltaji, 2005](#)). In summary, it can be stated that to use the panel data regression method; several steps must be taken. First, using the F-Limer test determines which of the panel and integrated data should be used. After the panel data method was determined by F-Limer test, the

Hausman test should be used to select one of the fixed and random effects methods in the next step. After performing these two steps, the regression model should be estimated and analyzed.

9.3. Non-correlation test

In the second hypothesis, it was stated that the covariance between the perturbation components is zero. If this assumption is not valid and there is a correlation between the components of the disorder, there will be a relationship between the current values of e_t-1 , e_t , and $2-e_t$. Since graphic models are not able to identify autocorrelation, it is, therefore, necessary to use conventional statistical tests to diagnose autocorrelation, the simplest type of which is the Watson-camera test, which calculates the relationship between an error and a pre-error. Because autocorrelation occurs more in time series data, the t-index shows the different years of the study series. If the statistic d is estimated for a model around 2, it indicates the absence of autocorrelation in the model. The Watson camera test can be used if there is a set of hypotheses in the model, one of which is Hypotheses of the absence of a dependent variable as an independent variable in the model. Watson camera or other tests should be used to check for autocorrelation in the model. In this study, Voldridge test statistics are used to investigate the lack of autocorrelation. In this test, the hypotheses are as follows:

No autocorrelation: H_0 Autocorrelation: H_1

Suppose the probability of the test result statistic is less than 5%. In that case, the null hypothesis of non-correlation of the disturbing components is rejected and there is a problem of correlation error. If the model has autocorrelation errors, the first-order autoregression process (AR1) and higher can be used to estimate the model.

9.4. Variance homogeneity test

One of the most important assumptions of the classical linear regression model is that the e_i perturbation components that appear as a function of community regression have the same variance. If there is heterogeneity, t and F tests give erroneous results, and then the hypotheses cannot be tested with F and t -tests (Gujarati, 2008). Numerous methods and tests have been proposed to detect variance heterogeneity. This study uses the pagan Godfree test in Eviews software to examine the variance homogeneity. In these tests, the hypotheses are as follows:

Variance homogeneity: H_0 Variance heterogeneity: H_1

If the probability of the test result statistic is less than 5%, the null hypothesis of variance homogeneity is rejected and there is a problem of variance inequality. If the model has variance heterogeneity, the generalized least squares method (GLS) can be used to estimate the model.

9.5. T test

The t -test is applicable to small samples. The t -distribution is similar to the normal distribution in many ways, and when the sample size reaches 30, it almost becomes one with the normal distribution (Salehi & Alkhyoon, 2021). The t -test is used to evaluate the significance of the calculated coefficients, correlation coefficients and regression models. In general, the significance test is a method that uses the results of the sample to determine the correctness or incorrectness of the H_0 hypothesis in society. The decision to accept or reject is also made based on the numerical value of the test function derived from the available data. According to this test, if the calculated significance level is more than 5%, the

calculated values will not be statistically significant at the 95% confidence level. Commonly used in all estimates, this test is used to evaluate the significance of model coefficients. This means that hypothesis 0H, which is the coefficient of zero and therefore the effect of the relevant independent variable on the dependent variable in the community, is tested. If hypothesis 0H is rejected, the hypothesis 1H, which is opposite to zero (i.e. the effect of the independent variable on the dependent variable (is accepted) (Gujrati, 2008).

9.6. Fisher test

In a multiple regression equation, if there is no relationship between the dependent variable and the independent variables, all coefficients of the independent variables in the equation must be equal to zero. Having a multiple regression model, the decision rule is as follows:

All slope coefficients are zero at the same time

Are $0 = \dots = 2H0: \beta_1 = \beta$ is at least one of the non-zero slope coefficients $0 \dots = 2H1: \beta_1 = \beta$

If at 95% confidence level, the F-statistic calculated from the regression equation is greater than the value of F in the table, the null hypothesis is rejected and otherwise the null hypothesis is not rejected (Baltaji, 2005).

10. Conclusion

10.1 Analysis of the result of the first main hypothesis

In this hypothesis, he examines the auditor-customer relationship with the risk of the future stock falling in companies listed on the Tehran Stock Exchange in the CRASH model, which according to the significance level of the independent variable is 0.0810 and the significance level is more than 0.05, so It is concluded that at the 95% confidence level, the auditor-customer relationship has no significant relationship with the risk of the future stock falls in companies listed on the Tehran Stock Exchange. Auditor - The customer has a significant relationship with the risk of the future stock falling in the Tehran Stock Exchange companies. In NSKEW model, considering the significance level of the independent variable 0.8638 and that the significance level of more than 0.05, it is concluded that at the 95% and 90% confidence level of the auditor-customer relationship, there was no significant relationship with the risk of the future stock falls in companies listed on the Tehran Stock Exchange. In DUVOL model, considering the significance level of the independent variable 0.000 and the fact that the significance level is less than 0.05, so it is concluded that at the 95% and 90% confidence level of the auditor-customer relationship, there is a significant relationship with the risk of the future stock falls in companies listed on the Tehran Stock Exchange. The results of this study are consistent with the results of Cullen and Feng's research (2017) in terms of confirmation.

10. 2. Analysis of the result of the second main hypothesis

Also, considering the negative coefficient of the independent variable of the auditor-customer relationship in CRASH and NSKEW model, it shows that there is a negative relationship between the auditor-customer relationship and the risk of future stock fall, which increases the risk of future stock fall. However, considering the positive coefficient of the independent variable of the auditor-customer relationship in the DUVOL model, it shows a positive relationship between the auditor-customer

relationship and the risk of future stock fall, which does not decrease the risk of future stock fall by increasing the auditor relationship with the CEO. The results of this study are consistent with the results of Cullen and Feng research (2017) in terms of confirmation.

10. 3. Analysis of the result of the first special hypothesis

Considering that the first main hypothesis in the CRASH model was rejected at 95% confidence level, but was confirmed at 90% confidence level, rejected in NSKEW model, and approved in DUVOL model, therefore, it shows that the relationship between the auditor-customer relationship and the risk of the future stock falling in different models in companies listed on the Tehran Stock Exchange is significantly different. Therefore, the first special hypothesis is confirmed. The result of this study is not comparable due to the fact that, according to the author's studies, domestic and foreign research has not been done in a similar way.

10. 4. Analysis of the result of the second special hypothesis

The second main hypothesis was confirmed in the CRASH model and NSKEW model at 95% confidence level but was rejected in the DUVOL model. Therefore, it shows that the risk of future stock falling in different models in companies listed on the Tehran Stock Exchange does not decrease with the increase of auditor-customer relations. Therefore, the second special hypothesis is rejected. The result of this study, considering that domestic and foreign research has not been done in a similar way according to the author's studies, there is no comparability.

11. Research suggestions

Hypothesis 1: The results of Hypothesis 1 indicate that in the CRASH and NSKEW models, the auditor-customer relationship has no significant relationship with the risk of the future stock falls in companies listed on the Tehran Stock Exchange. But in the DUVOL model, the auditor-customer relationship has a significant relationship with the risk of the future stock falling in companies listed on the Tehran Stock Exchange. Therefore, based on that: (a) The ground should be provided for the performance of auditing firms to be carefully monitored and evaluated. (b) The officials of the auditing organization are suggested to evaluate this result in evaluating and compiling auditing standards. (c) The stock exchange organization is suggested to establish a suitable information system about stock exchange information so that the information required for conducting the necessary analysis, including the period of the audit tenure and the tenure of the managing director, is also provided to the researchers.

Hypothesis 2: The results of the second hypothesis indicate that in the CRASH and NSKEW model, with increasing the auditor's relationship with the CEO, the risk of future stock fall decreases, but in DUVOL model, with increasing the auditor's relationship with the CEO, the risk of future stock fall decreases. Therefore, based on: (a) Users of financial statements are advised to pay attention to the auditing firm and its tenure when analyzing the audited companies. (b) It is suggested to the Stock Exchange and Securities Organization that they consider the auditor's tenure in pricing the shares of companies. (c) The Securities Exchange Organization is recommended to adopt rules and regulations that, as far as possible, listed companies use the presence of various auditors for auditing financial statements for many years.

Hypothesis 3: The results of the third hypothesis indicate that the relationship between the auditor-client relationship and the risk of the future stock falls in different models in companies listed on the Tehran Stock Exchange is significantly different.

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