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Fraud in Financial Statements and Stock Price Crash Risk

Mohammad Omid Akhgar*
Associate Prof Accounting, Department of Accounting, Faculty of Humanities and Social Science, University of Kurdistan, Sanandaj, Iran, Mo.Akhgar@uok.ac.ir

Rezgar Fatehi
Master student of Accounting, Department of Accounting, Faculty of Humanities and Social Science, University of Kurdistan, Sanandaj, Iran, Rezgar.Fatehi@uok.ac.ir

Abstract

Purpose: Accounting fraud is a serious misconduct that harms the confidence of investors in the capital market and is one of the controversial topics in the financial field. Many researches have examined the effect of fraud on the capital market from different aspects, but it is still not clear whether the disclosure of frauds committed by companies in the past affects the risk of future stock price crash. Therefore, the purpose of this research is to investigate the relationship between the detection of fraud in financial statements by market participants and the risk of crashing future stock prices.

Method: In order to achieve the goal of the research, 143 companies were selected among the companies admitted to the Tehran Stock Exchange during the years 1392 to 1400 by systematic elimination method and a total of 1287 company-years were considered.

Results: The findings of the research show that fraud in the financial statements of companies and its detection by market participants has a positive and significant effect on the risk of crashing stock prices.

Conclusion: The findings of this research show that following the disclosure of accounting frauds and the accumulation of bad news by the company and the deterioration of the quality of the disclosure and the vagueness of the information environment of the company, the trust of the investors has been lost and in turn lead to It is the risk of crashing stock prices. This supports our theoretical mechanism that accounting fraud affects stock price crash risk through information opacity.

Contribution: This research can help investors to investigate the information environment of companies more deeply and understand the power of information environment of companies in their financial decisions.

Keywords: Fraud in Financial Statements, Fraud in Financial Reporting, Stock Price Crash Risk

Research Article

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Publisher: Imam Khomeini International University.
Corresponding Author: Mohammad Omid Akhgar (Mo.Akhgar@uok.ac.ir)

Introduction

The purpose of this research is to investigate the relationship between detection of fraud in financial statements by market participants and the risk of falling future stock prices. Accounting fraud is a serious misconduct that damages the confidence of investors in the capital market. Fraud is "any intentional or deceptive act of one or more managers, employees or third parties, in order to enjoy an unfair or illegal advantage" (Standard Committee, 1388). Changes in stock prices are mainly in two forms: "jump" and "fall". But due to the fact that investors attach great importance to the return of their investment, the issue of falling stock prices, which leads to a significant decrease in price and return, has attracted a lot of attention compared to price jumps (Akhgar et al., 1401). Since the stock price fall occurs in companies with a more ambiguous information environment, corporate governance measures aimed at improving and transparency of the information environment and restoring public trust should reduce the risk of stock price fall in the future. (Jin and Myers, 2006), on the other hand, disclose and detect accounting frauds in the financial statements of companies without any actions on the part of the company to improve its information environment, leading to more ambiguous information environments and reducing investors' trust for companies. which, in turn, leads to a further increase in the risk of falling stock prices in the future (Kong et al., 2021). Therefore, the hypothesis of the research is that there is a relationship between fraud in financial statements and the risk of a future fall in stock prices. This research seeks to find an answer to the question of whether the detection of fraud in financial statements has a significant effect on the risk of falling stock prices or not. The hypothesis of the research is that there is a relationship between fraud in financial statements and the risk of a future fall in stock prices.

Materials and Methods

This research is practical in terms of its purpose, and since in this research, it has been used to investigate the current state of variables by collecting information through past information, it is in the ranks of post-event descriptive studies. Also, in terms of the type of reasoning for the conclusion, it is considered part of inductive research. In this research, the library and archive methods have been used in order to compile theoretical concepts and principles. From articles, theses, books, internet sites and Persian and English specialized magazines in order to compile theoretical foundations and concepts, literature on the subject, define and identify the concept of independent and dependent variables and discuss and investigate how they affect each other. have been used and to collect the data related to the research variables, the financial statements published by the companies as well as the Kodal database and Rahevard Novin software have been used. The data required for the research was collected using the systematic elimination method among the companies accepted in the Tehran Stock Exchange during the years 1392 to 1400. Also, in order to make the observations more homogeneous, criteria have been considered: 1) for the purpose of comparability, their financial year should end on March 29, 2) they should not be part of financial, investment and financial intermediation companies, 3) their financial information is accessible, 4) the financial year does not change during the time period of the research, 5) the information related to the required variables is available, and 6) the company symbol does not stop in the market for more than three consecutive months. . Finally, by applying these restrictions, 143 companies, equivalent to 1287 company-years, were used to test the research hypothesis.

Results and Discussion

In order to better understand the nature of the society studied in the research and to better identify the research variables, it seems necessary to describe these variables. Also, the descriptive statistics of the variables is a movement towards identifying the pattern that governs them and a basis for explaining the relationships between the variables that are used in the research. The most important index that can be the balance point and the center of gravity of the distribution and a suitable index to identify the data center is the average index. The average index shows that most of the data of a variable are located around the average point. The median is another important central index that shows the state of the society. In other words, half of the data of a variable has a value greater than the mean of that variable and the other half of the data has a value less than the mean of the variable. If the mean of a variable is larger than the mean of the same variable, it is inferred that that variable is skewed to the right. In general, dispersion indices are a measure to identify the degree of dispersion of data from each other or the degree of their dispersion compared to the average. Standard deviation is one of the most important dispersion parameters.

Std. Dev.	Minimum	Maximum	Median	Mean	N	Symbol
0.344	1.000	1.000	0.000	0.137	1287	RISK
0.496	1.000	1.000	0.000	0.442	1287	FRAUD
3.970	0.013	15.750	1.150	2.757	1287	MB
0.185	0.195	0.860	0.556	0.550	1287	LEV
0.617	5.452	7.816	6.282	6.390	1287	LNTA
0.130	-0.043	0.420	0.111	0.139	1287	ROA
0.241	-0.152	0.725	0.271	0.287	1287	ROE
0.153	1.278	1.778	0.612	1.579	1287	LNAGE

The test of the hypothesis of the research considering that the dependent variable of the research, i.e. the risk of falling stock prices, is two-dimensional, logistic regression of the combined data model has been used and the result can be seen in the following table:

Prob	Z statistics	Standard Error	Coefficient	Symbol
0.288	-1.061	1.497	-1.590	C
0.035	1.105	0.167	0.353	FRAUD
0.073	1.791	0.024	0.044	MB
0.415	0.814	0.615	0.501	LEV
0.887	0.142	0.167	0.023	LNTA
0.720	0.357	1.217	0.0435	ROA
0.028	2.191	0.562	1.233	ROE
0.080	-1.747	0.520	-0.910	LNAGE
	0.028		McFadden R-squared	
	29.511		LR statistic	
	0.000		Prob	
	(0.953) 2.664		H-L Statistic	
	(0.980) 3.059		Andrews Statestic	

One of the goodness of fit criteria in models with a two-valued dependent variable is the Hosmer-Lemshow and Andrews tests, which are presented in the table above. The significance level of the probability value of Hosmer-Lemshow and Andrews statistic is more than 0.05, so the null hypothesis is accepted, the null hypothesis indicates the optimal explanation of the model. The probability statistic at the level of 0.05% was used for the significance of the regression model. According to the significance level (0.000) and also the obtained probability statistic (29.511), with an error rate of five percent, it can be claimed that the model is significant and has high reliability. The probability of the probability statistic, whose value is less than 5%, indicates the rejection of the null hypothesis, that all the coefficients of the explanatory variables are zero at the 5% error level, and as a result, the regression is significant. As can be seen in the table above, the variable coefficient of fraud in financial statements as an independent variable of the research is equal to 0.353 and according to its significance level which is less than 0.05%, it can be concluded that found that there is a positive and significant relationship between fraud in financial statements and the risk of falling stock prices in the future at the five percent error level. This means that when fraud in financial statements is recognized by users and market participants, the risk of falling stock prices increases. Therefore, the hypothesis of the research about the effect of fraud in financial statements on the risk of falling stock prices is not rejected. Among the control variables, only the relationship between ROE and the risk of falling stock prices is significant, and the rest of the control variables do not have a significant relationship with the dependent variable of the research.

Conclusions

The purpose of this research was to investigate the relationship between fraud in financial statements and the risk of future fall in stock prices. The results obtained from the research are in line with the research conducted by Richardson et al. (2022). They found that there is a positive and significant relationship between accounting fraud and the risk of future stock price falls. The obtained results support these theoretical foundations that, the disclosure and detection of accounting frauds in the financial statements of companies without any actions by the company to improve its information environment, increase the motivation of managers to hide bad news. Gives Therefore, following the disclosure of accounting frauds, the increase in accumulation of bad news by employees and the deterioration of disclosure quality lead to more ambiguous information environments and lower investor confidence for companies, which in turn leads to a further increase in the risk of future stock price falls (Kong et al., 2021). Given the enormous economic and social effects of accounting fraud and the severe consequences of falling stock prices, our findings are instructive and have implications for managers, investors, and policymakers. Based on our results, investors can gain a deeper understanding of the importance of companies' information environment, allowing investors to evaluate the strength of companies' information environment when making investment decisions. Our findings also provide insights to policymakers in two ways. First, policymakers can use our results to develop additional guidelines for improving the information environment and corporate governance mechanisms to promote transparency and reduce the risk of stock price collapse in the market. Second, our evidence of the financial market consequences of accounting fraud directly informs policymakers about the extent of legal penalties needed when developing laws and regulations to prevent future corporate fraud. For future research, it is suggested that information asymmetry be investigated as a moderating variable. It seems that in environments with more information asymmetry, the effect of fraud detection by market participants on the risk of future fall in stock prices will be strengthened.

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