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## Studying the effect of quality of financial reporting on risk of future stock price crash in firms listed in Tehran stock exchange

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### Abstract

A lot of economic decisions are taken based on information arising from accounting information systems. Attention to quality of provided information for users is of special necessity and increasing quality of information can give rise to higher efficiency of firms' investors and maintenance and development of their resources. Meanwhile, financial reporting and its quality are of high importance for all users. Stock price crash is an event that the price of stock sustains sudden negative and severe moderation. This sudden decline of price is definitely harmful for shareholders and even for the firm; therefore this paper aims to study the effect of quality of financial reporting on risk of future crash of stock prices in firms listed in Tehran stock exchange. Along this, one seeks to examine 131 firms member of Tehran stock exchange within 2008-2013 period that includes 786 observations. Quality of earnings indicator is used for calculating the quality of financial reporting based on Francis's (2005) model which is developed based on Dichev and Dicho (2002). Skewness negative coefficient model of Chen (2001) is used for calculating the stock price crash. Results have shown that financial reporting quality has significant impact of future stock price crash risk, thus higher the quality of financial reporting, lower the risk of future stock price crash.

**Key Words:** quality of financial reporting, risk of future stock price crash

### Introduction

Today, successful economic firms for rapid response to commercial alteration should meet the need of users and supply information required for management in an appropriate manner so that by a suitable definition of organization relative advantages, they would be able to have a rapid accountability to needs of customers and users of financial statement and to put the reduction of costs in their agenda. Thus, there are considerable alterations in the manner in which financial reporting is presented in evaluating the performance and financial and non-financial reporting. In fact, today, reporting should keep the pace with change of users' needs; otherwise it loses its efficiency and effectiveness. This can be of high

importance when we consider the survival of accounting job dependent on accepting fundamental changes in line with changed made in economic firms and world commercial milieu. Many studies have been done over recent three decade about quality of reporting and its desirable limit (Verdy, 2006).

Risk of crash of stock price in the market is one of greatest concerns of investors and many studies addressed the importance of this in different stock exchanges markets around the world, because stock price crash can be important for capital market as its intensification gives rise to pessimism of investors about investing within stock exchange, finally it leads to bringing the capital out of the stock exchange and it deteriorates the stock exchange market. Theoretic basics show that high quality of reporting can reduce this risk (Ferughi et al, 2012).

### Problem statement:

Firms as economic units seek profitability and achieving to further wealth. Due to different reasons which the most important is separation of ownership from management, in addition to undertaking economic activities, firms are in charge to be accountable and responsive to people outside of the firm. Based on empirical findings, most efficient and appropriate method for accountability is financial reporting (Kim et al, 2011).

Due to lack of trust to accounting figures and reports which serve as most part of financial reporting, confidence of investors to financial statements provided by managers is decreased. One of the conditions which may reduce this trust is the crash (decline) of stock price. Decline of stock price is an event occurring due to existence of bubble in stock price and this takes place because of some managerial measures such as postponing propagating bad news and accelerating in offering good ones, escape from tax payment, continuing projects with negative current value and lack of transparency of financial information, considerable issue is that based on accounting studies, managers of commercial units are always able to do policy of "delaying in issuing bad news and accumulating them as confidential information", so, a given volume of bad news would be accumulated in the firm and this is because of some factors such as

costliness of this policy or in general, lack of ability of manager to continue this action (such as change of management of commercial unit). Finally, by reaching the accumulated negative information amount to the final limit, managers are no longer able to prevent the leak of these news to market and investors. By issuing and propagating these news to market, investors obtain new information and revise in their previous beliefs based on firm stock current price and put their expectations based on new information, and this give rise to sudden and negative moderation of stock price of firm, which in financial literature it is referred to as stock price crash (Hutton et al, 2009).

Therefore main problem of research that has turned into a worldwide concern of market information needs is financial report quality. Therefore we seek to specify whether the quality of financial reporting has significant influence on future stock price crash risk?

**Theoretical basics and literature review:**

In its first statement, FASB says: primary objective of accounting is financial statement reporting of commercial firms. Financial reporting should provide information appropriate to needs of investors, creditors and other users who have rationally invested or to be useful for other similar decisions.

FASB noted that investors need some information with ability of meeting their rational expectations and lots of them demand strongly information with current value otherwise, users prefer to obtain the real information based on future events. However these events and future values can serve only as a guess, because they are not occurred as yet, so, they cannot be serve as an objective and a basis for user' decision making. Thus accounting based on current value can be relevant and useful in terms of decision making for a lot of accountants and other users of information; anyway, accounting would be used based on historical cost in decision makings.

There are two approaches for evaluating the quality of financial reporting: firstly, approach of users' need and second support of investors and shareholders. In the first approach, the quality of financial reporting is determined and defined based on usefulness of financial information (relevance and reliability). However, in support approach, the quality of financial reporting is defined intentionally in terms of complete and fair revealing for shareholders. In this context, the quality of financial reporting is thorough and transparent financial information which results in misleading or bringing about ambiguity for users (Rahmani, 2002).

In most of financial research, the quality of accruals and in general, quality of earnings is considered as a

criterion for measuring the quality of financial reporting, reaction of investors to information would be reflected directly in moderations of stock price (Chiang et al, 2008).

Definition of stock price crash has three distinct features:

- 1- Stock price crash is a big and unusual change in stock price which occurs without occurrence of an economic important event.
- 2- These big changes are negative.
- 3- Stock price crash is a contagious phenomenon across the market, that is, decline of stock price is not limited to a specific stock, rather it includes all types of stocks available in the market (Chen et al, 2001).

Hong & Stein (2003) state that this is because once the crash is occurring, correlation between varieties of stocks in the market is increased. They have proved that examining the procedure of historical data (time data) relating to price of stock market shows that in some cases that stock option index was reducing, the correlation between types of option bonds have increased.

Now following discussing the research theoretic basics, it is needed to point out to empirical basics of research in literature review is offered.

**Literature review:**

Bon Kim and Zhang (2015) in their research have studied the relation between conservative accounting and future stock price crash risk. For doing so, they have address a lot of firms including more than 58072 firms of United States within 1964-2007 period. They found that conservative accounting causes reduction of stock price crash; similarly, in firms with higher information asymmetry, there is higher risk of stock price crash.

Chen et al (2013) have shown that avoiding paying tax has positive relation with stock price crash risk. For this purpose, 1307 firms have been studied within 2000-2009 period. They concluded that with as avoiding payment of tax allows the binging the managerial interest out and hiding bad news through providing tools, masks and some areas for this opportunistic behavior, and hiding and accumulating bad news within long term entailed the risk of stock price crash. For this reason, accumulated bad news surpasses a given limit and all would be revealed suddenly. Moreover, researchers noted that the positive relation of tax payment avoidance and stock price crash risk is weakened when firms have an external supervisory mechanism like institutional ownership.

Ramalingegowda et al (2013) examined the relation between financial reporting and dividend. For doing so,

They examined 983 firms within 2002-2009 period. Yet in imperfect markets, external funding constraints that stem from information asymmetry can force firms to forgo valuable investment projects in order to pay dividends. We find that high-quality financial reporting significantly mitigates the negative effect of dividends on investments, especially on R&D investments. Further, this mitigating role of financial reporting quality is particularly important among firms with a larger portion of firm value attributable to growth options. In addition, we show that the mitigating role of high-quality financial reporting is more pronounced among firms that have decreased dividends than among firms that have increased dividends. These results highlight the important role of financial reporting quality in mitigating the conflict between firms' investment and dividend decisions and thereby reducing the likelihood that firms forgo valuable investment projects in order to pay dividends.

Taqizadeh & Zeinali (2015) in their study have examined the role of quality of financial reporting in reduction of restricting effects of dividend on firms' investment in stages of lifecycle. The paper aimed to study the role of financial reporting in reduction of restricting effects of dividend on firms' investment listed in Tehran stock exchange in stages of life cycle. Along this, 110 firms have been selected through eliminative sampling for 2006-2012 period. Research hypothesis have been test using hybrid data pattern. Results showed that higher quality of financial reporting reduces the restricting effects of dividend on firms' investment. Based on study findings, high quality of financial reporting decreases the restricting effects of dividend on investments of firms present in maturing stage, while it has no effect on the relation between dividend and investments of firms present in growth and decline stage.

Alizadeh, M., et al (2015) examined the prediction of stock market crash using self-organizing mapping neural network. For this purpose, they draw on hybrid data for 86 firms over 2006-2011 period. One of proposed appropriate methods for finding some patterns existing in neural network data is self-organizing mapping which is a non-parametric and nonlinear method. In this paper, using self-organizing mapping neural network, a method is proposed for forecasting the crash in Iran stock market. Results of implementing the model and extra-sampler prediction suggest that the model has obtained the periodical prediction before crash in the stock market in an acceptable manner

Yusefi et al (2014), in a study titled as clarifying the financial reporting transparency model have dealt with the factors affecting reporting. Along this, 87 firms listed in stock exchange have been examined over 2007-2011 period. In this paper, studying theoretic basics and literature review and considering Iran environmental features, a more comprehensive model is proposed for evaluating the extent of transparency of firms and quality of its revealing. Proposed model is based on Boshman's financial reporting transparency model (2004). A questionnaire is devised for measuring the validity of the model. Fuzzy Delphi technic has been used for screening and final confirmation of indicators of opinions of academic and professional experts. Based on conducted test, all criteria of the model have been confirmed by experts. Similarly, for measuring the relation of latent variables with their measure items, factor analysis is used. The results supported the fact that the observed structural model is of desirable fitness. Furthermore, further studies show that by views of experts, the gap between status quo and desirable status in the context of each one of dimensions affecting on informational transparency at firm level is statistically significant.

**Research question:**

Primary question is generally as follows:

Does quality of financial reporting has significant influence on risk of future stock price crash of firms listed in Tehran stock exchange?

**Research hypothesis:**

For achieving the research objectives and answering the research question, one tests following hypothesis.

Quality of financial reporting has significant influence on risk of future stock price crash of firms listed in Tehran stock exchange.

**Manner of conducting the research:**

Because the results obtaining from the research would be used in decision making process, this research is practical in terms of objective. Similarly, this research serves as descriptive-post event, because in this type of studies, researcher seeks to examine the influence between variables and data are collected and analyzed from an environment which naturally existed or from past events without direct intervention of researcher.

Datapanel is used for doing the study which conflates the time series and cross section data. This increases the number of observations available for estimating the regressive equation, consequently reliability of the results are enhanced. Data panel analysis is one of new practical topics in econometrics, because data panel is a highly rich environment of information for developing

estimation technics and provides theoretic results. In many cases, researchers can use data panel for cases that one cannot examine the problems via only either time series or cross sectional. Hybrid data provide more informing data with more diversity or variability, less linearity between variables, and higher efficiency and degree of freedom.

**Data collecting method:**

In this study, library method is used for collecting theoretic basics and literature review, and document mining method is used for collecting data required for analyzing and testing hypothesis. Required data are collected from Tadbirpardaz information bank, Rahavarde Novin, research management website, Islamic development and studies of Stock Exchange organization, Tehran stock exchange website and Tehran stock exchange information site.

**Statistical population and sampling method:**

Statistical population of study is consisted of all firms listed in Tehran stock exchange, and studies period is spring of 2008 to February of 2013. It is worthy to mention that since variables are used for data analysis in operational model from data of past year and next year, however, data relating to yeas 2007 and 2014 are used for analysis as well, yet in general, six years considered for the study are 2008 to 2013.

Statistical sample are selected from firms listed in Tehran stock exchange. Studied firms are selected on following basis:

- 1- Firms considered belonging to financial banks and intermediation may not be holding and leasing firms.
- 2- Firms with no information regarding variables are eliminated.
- 3- Firms should not cease their activity during research period.
- 4- Number of transactions of firms should not be less than 50 times.
- 5- Firms should be in actively membership of stock exchange until before 2007 and end of 2014.
- 6- Firms with no financial year change in studied period.

Finally, study statistical sample was consisted of 131 firms listed in Tehran stock exchange.

**Research variables:**

Independent variable:

In this paper, considering the research subject, the independent variable is quality of financial reporting. Quality of earning index is used for calculating the quality of financial reporting based on Francis's model (2005) which is based on Dichef and Dicho model (2002). Based on this approach, quality of earnings is determined firstly by quality of accruals, because accounting earning can be

represented by sum of operational cash flow and accruals. There is a belief that accounting accruals forecast the future operational cash flow, and reflects current cash flow or return of past cash flow. Measuring error in determining accruals can potentially deviate the ability of accruals in predicting the future cash flows or reflecting past or current cash flow. The main idea considered by Dichef and Dicho (2002) is determining the range of the measuring error in planning and estimating accruals and cash flow. It is needed to note that the following model is used in similar research such as Hutton et al (2009), Verdy (2006), Nicolas (2002), Qorbani et al (2012):

$$TCA_{i,t} = \alpha_0 + \alpha_1 CFO_{i,t-1} + \alpha_2 CFO_{i,t} + \alpha_3 CFO_{i,t+1} + \alpha_4 AREV_{i,t} + \alpha_5 PPE_{i,t} + \epsilon_{i,t}$$

Where in above model

TCA<sub>i,t</sub>: denotes the total accrual of firm I in year t.

CFO<sub>i,t</sub>: cash flow obtaining from operation of firm I in year t.

PPE<sub>i,t</sub>: net asset of firm I in year

Entire accruals in this study can be calculated based on following equation:

$$TCA_{i,t} = NI_{i,t} - CFO_{i,t}$$

Where in above model

TCA<sub>i,t</sub>: entire accruals in year t for organization i.

NI<sub>i,t</sub>: net earnings in year t for organization i.

CFO<sub>i,t</sub>: cash flow arising from operational activity in year t for organization i.

**Depending variable:**

Considering the study hypothesis, dependent variable of this research is stock price crash; skewness negative coefficient (Chen, 2001) is used for measuring it that is used as follows in similar studies such as Kim et al (2011), Hutton et al (2009), Lafond & Watts (2008), Feruqi et al (2011):

$$NCSKEW_{it} = - [n(n-1)^{3/2} \sum W_{it}] / [(n-1)(n-2)(\sum W_{it})^{3/2}]$$

In above model, W<sub>it</sub> denotes monthly net efficiency of firm I for month t and n is number of observed monthly efficiency over financial year. In above model, higher the value of skewness negative coefficient, higher the firm is subjected to stock price crash. ( t in this formula denotes month).

Firm net monthly efficiency is equal to natural logarithm of one plus remaining  $\epsilon_t$  calculated of formula 2, in formula 2, r<sub>j,t</sub> is stock return of firm j in month t, and r<sub>m,t</sub> denotes market monthly return ( in terms of market index).

$$W_{j,t} = \ln(1 + \epsilon_{j,t})$$

In above model:

$W_{j,t}$  denotes net monthly return of firm in financial year

$\epsilon_{j,t}$  denotes remaining return of stock

Formula 2:

$$r_{j,t} = \alpha_j + \beta_1 r_{m,t-2} + \beta_2 r_{m,t-1} + \beta_3 r_{m,t} + \beta_4 r_{m,t+1} + \beta_5 r_{m,t+2} + \epsilon_{j,t}$$

$r_{j,t}$  denotes stock return of firm j in month t.

$r_{m,t}$  denotes the market monthly return ( in terms of market index)

in this study, risk of stock price crash is a virtual variable that if a firm has experienced the crash at least once over financial year, its value assume one, otherwise it is zero.

**Control variable:**

$r_{j,t}$ : stock return of firm j in month t

$r_{m,t}$ : monthly return of market ( in terms of market index)

in this study, stock price crash risk is a virtual variable that if the firm experienced at least one time the crash over financial year, its value is one, otherwise it is zero.

For achieving appropriate results and adequacy of hypothesis test in proportion with the subject, we have selected some control variable for using in the test.

Firm size: Firms’ asset values can be obtained from natural logarithm. Some argue that firm size has positive effect of quality of financial reporting and consider some reasons such as establishing efficient internal control system and communication with big auditing institutes as main factors.

The formula is:

$$size = \log A$$

**Sale growth:**

Sale growth denotes the amount of sale increase over current year and is calculated based on current year growth divided by previous year minus one.

**Return of Asset (ROA):**

Return of asset represents ability of management in efficient use of asset and it further focuses on return of operational part. Roa is the ratio of dividend to total asset.

Debt structure or financial lever (LEV): it is measured as the ratio of total debts to book value of total assets. In firms with problem in terms of financing and liquidity, legal lawsuit is more probable (Khan and Watts, 2009) which can foster the likelihood of stock price crash.

$$Lev = \frac{TL}{TA}$$

**Data analysis:**

**Descriptive statistics**

Table 1-4 shows descriptive statistics related to study variables. For example, firm size variable has average and standard deviation 13.66 and 1.508 respectively. Also, minimum and maximum of this variable is 10.03 and 18.81 respectively. Skewness and kurtosis of firm size variable is also 0.856 and 4.13. This statistic is shown for other study variables in table 1-4.

**Table 4-1: descriptive statistics of study variables**

variable	average	Standard deviation	minimum	maximum	skewness	kurtosis
acc	0.0000031	841967.7	-10520184	7945185	-0.16078	61.47184
NCSKEW	-813.081	226.552	-2933.333	-14.4253	-0.26494	16.9761
size	13.66634	1.508441	10.03122	18.81726	0.856003	4.131153
lev	0.644146	0.286091	0.08911	3.060401	2.645107	19.29223
roa	0.113917	0.139244	-0.386633	0.631343	0.318048	4.451373
grow	0.193567	0.391994	-0.898046	3.233821	2.614236	18.25438

**4-3-linear regression assumptions test for study model**

**4-3-1- normality test**

One of most important assumptions of using linear regression is having normal distribution for remnant of model and study dependent variable. In estimative models, it is assumed that remnants and accordingly, its independent variable are stochastic variables. Therefore, dependent variable distribution follows the remnants distribution. In this paper, examining data normality is carried out by Jarque-Bera test. Null hypothesis of test is based on normality of data . it is obvious that if level of significance is higher than 0.05 based on results of test. Normality of data distribution is affirmed. Therefore, as level of significance in table 2-4 for dependent variables and remnant is greater than 0.5, it can be concluded that the null hypothesis is accepted.

Table 2-4 normality test

Variable	Jarque-Bera statistics	Level of significance
Depending variable	1.076	<b>0.1911</b>
Model remnant	0.952	<b>0.3251</b>

**4-3-2- Variance consistency test**

Among other assumptions of linear regression is equality of variance of errors terms in different periods. violation of this assumption brings about variance inconsistency. There are various tests for detecting variance inconsistency. In this paper for testing variance inconsistency, Harvey and ARCH

tests are used. Null hypothesis of tests suggests variance consistency. As level of significance of the tests in table 3-4 is less than 0.05, therefore it can be said that null hypothesis of these tests are not confirmed, in other word, there is problem of variance inconsistency in the study model and White correction should be used for tackling inconsistency problem.

**4-3-3-autocorrelation**

Other assumption of linear regression is autocorrelation of errors (independence of errors). For testing the autocorrelation in study model, one uses Breusch-Godfrey successive correlation. This test, in addition to first degree correlation ( first degree autocorrelation is tested with Durbin-Watson statistic), tests the autocorrelation of higher degrees as well. As level of significance of this test in table 3-4 is greater than 0.05, it can be said that the study model is not featured by autocorrelation problem.

**4-3-4- collinearity**

In multivariable regression analysis, in addition to examined assumptions, independent variables collinearity should be tested in study model too. Collinearity is a status that shows an independent variable of linear function is independent from other variables. If collinearity is high in a regression model, it implies that there is a high correlation between independent variables and may be by high determination coefficient, model would not have high validity. Collinearity in regression is specified by variance inflation factor (VIF). As an empirical rule, variance inflation factor greater than 5 implies higher collinearity (factor greater than 10 implies sever collinearity), accordingly, regression model is considered as inappropriate for prediction. According to table 3-4 variance inflation factor for independent variables in study model is not greater than 5, and it can be noted that they are appropriate values for variables. Therefore, independent variables are not featured by collinearity problem.

Table 3-4 assumptions of linear regression

tests	statistics	model
<b>Variance consistency</b>	Harvey	F statistic 3.3601 Level of significance 0.0052
	Arch	F statistic 3.8802 Level of significance 0.0492
<b>autocorrelation</b>	Breusch-Godfrey	F statistic 0.6995 Level of significance 0.4971
		Independent variables VIF
<b>Collinearity test</b>		

acc	1.016532
size	1.010924
roa	1.878989
lev	1.787188
grow	1.069276

**4-3-5- variables stationary**

Before estimating the model in studies related to time series, variables stationary (fixedness of variable distribution over time) should be examined because in the case of failure of stationary of variables give rise to false regression. In this research, Loin, Lin & Chou and Philips-Prone tests are used for testing variables stationary.

As obtained level of significance for these tests for all variable are less than 0.05, one can say that study variables are stationary, therefore, considering the stationary of variables in regression analysis there is no false regression problem (Table, 4-4).

Table 4-4, stationary test of study variables

variable	Lowin, Lin & Chou		Philips-Prone test	
	Statistic value	Level of significance	Statistic value	Statistic value
acc	5.715-	0.0000	335.894	0.0014
NCSKEW	74.273-	0.0000	706.543	0.0000
<b>First order difference</b>				
Size first order difference	15.133-	0.0000	456.683	0.0000
lev	11.431-	0036/0	364.995	0001/0
roa	17.465-	000/0	420.761	000/0
grow	470/199	000/0	733/418	000/0

**4-4 examining study hypothesis**

Hypothesis: quality of financial reporting has significant impact on stock price future crash.

For testing above hypothesis, considering above discussion in previous sections, following regression model is used.

$$NCSKEW_{it} = \alpha_0 + \alpha_1 acc_{it} + \alpha_2 size_{it} + \alpha_3 lev_{it} + \alpha_4 roa_{it} + \alpha_5 grow_{it} + \epsilon_{it}$$

In above regression model, if acc variable coefficient is significant, one can conclude that the quality of financial reporting has significant effect on stock price future crash risk and consequently, above hypothesis is confirmed. Considering above discussion in previous section, as data of 2008-2013 for 131 firms are collected annually, for estimating

the model panel regression or pooled regressions are used.

Before estimating model F-Limer test is used for examining which one of pooled or panel models are appropriate for estimating the study regression models. Statistical hypothesis of the test is as follows:

Null hypothesis: pooled model is appropriate.

Opposite hypothesis: panel model is appropriate.

By confirming the null hypothesis based on appropriateness of pooled model, all data should be combined with each other and parameters should be estimated by a classic regression. Otherwise, data should be considered as panel. An obtained result from the test is shown in table 4-5. Since level of significance of F-limer test is less than 0.05, therefore null hypothesis is not rejected, therefore this test suggests that pooled model is suitable for estimating the model with these data.

Table 4-5 F lime test

Test result	Significance level	F statistic	Null hypothesis
Confirming the null hypothesis	0.8461	0.8649	Pooled model is appropriate

Results obtained from model estimation by pooled regression method are presented in table 6-4. For reliability of results of model estimation, one should examine the classic assumptions of regression. In table 4-4, F statistic and level of significance are related to certainty of existence of linear relation (total regression significance test) between independent and dependent variables. As level of significance of the test for the model is less than 0.05, one can note that in the model, there is a linear relation between independent and dependent variables. Accordingly, the entire model is significant. Another assumption in regression is errors independence from each other (difference between actual values and predicted values by regression equation). By rejecting the hypothesis of errors independence, and correlation between errors, one cannot use the regression. For examining the errors independence from each other, Durbin Watson test is used. If Durbin-Watson statistic approaches 2, lack of correlation between errors is accepted. Considering table 6-4, Durbin Watson statistic is a suitable value for the model. As regression assumptions are established, in the following, hypothesis test and coefficients are examined.

**Hypothesis:** quality of financial reporting has significant impact on stock price future crash risk.

Considering table 6-4, one can conclude that level of significance of variable coefficient of quality of earnings as index of quality of financial reporting is less than error level 0.05 ( coefficient value is - 0.0000152 with level of significance of 0.000), therefore it can be concluded that this variable has significant impact on stock price future crash risk. Similarly, as minus sign suggests, one can note that higher the quality of earnings, less the stock price future crash risk. Therefore, as it is discussed earlier, one can note that hypothesis “quality of financial reporting has significant influence on risk of future stock price crash” is confirmed with 95% confidence.

Considering obtained level of significance for control variables, one can note:

Level of significance related to financial leverage coefficient is less than error level 0.05 (coefficient value of 37.93 with level of significance 0.0073). therefore is can be concluded that this variable has significant effect on stock price future crash risk. Similarly, as positive sign implies higher the financial leverage, higher the stock price future crash risk.

Level of significance related to sale growth factor is less than error level 0.05 ( factor value is 64.07 with level of significance 0.003). therefore, one can conclude that this variable has positive effect on stock price future crash risk. Similarly, as positive sign implies, as the sale growth is higher, future risk of stock price crash would be higher too.

Table 4-6, model estimation

Method	Pooled regression		
Dependent variables	NCSKEW		
Independent variables	coefficient	Level of significance	of
acc	-0.0000152	0.0000	
size	-2.26895	0.318	
lev	37.93429	0.0073	
roa	-50.0959	0.489	
grow	64.07032	0.003	
C	-833.615	0.0000	
F statistic	8.5973		
Level of significance	0.0000		
Durbin-Watson statistic	1.77		
Determination Coefficient	0.05		

**Conclusion**

Quality of financial information and reporting serves always as most effective variables in determining the investment strategy in financial markets. However, managers as responsible of providing financial statement tend to distort financial information in favor of their interests. Among measures of managers resulting in low quality of financial information is manipulation of earnings. Within earning manipulation, managers attempt to accumulate the negative news in the firm so as not to reveal it. When this mass of negative accumulated news reaches to its peak it flows to the market suddenly and leads to stock price crash. Therefore, one can say that low quality of financial reporting increases the risk of stock price crash. The main objective in this study is examining the effect of quality of financial reporting on future risk of stock price crash in firms listed in Tehran stock exchange over 6-year period. A hypothesis is set forth based on study objectives and it is analyzed in section 4 by collecting information of 131 firms over study period. In the following, hypothesis results are studied.

**Hypothesis:** quality of financial reporting has direct influence on future risk of stock price crash.

Considering the findings from section 4, it is specified that level of significance of quality of earning variable as indicator of quality of financial reporting is less than error level 0.05 (value of coefficient is -0.0000152 with level of significance 0.000). therefore it can be concluded that this variable has significant effect on stock price future crash risk. Similarly, as minus sign implies, as quality of earning is higher, risk of stock price future crash would be lower. Therefore, based on earlier discussion, one can say that hypothesis “ quality of financial reporting has significant effect on risk of stock price future crash” is confirmed with 95 % confidence. By studying literature review it can be concluded that current paper results are similar to that of Raj Gupal & Venakata Chalam’s (2011) and Hutton et al (2009) studies.

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