

TO STUDY THE EFFECT OF MANAGEMENT EARNINGS FORECASTS IN RISK AND VALUE OF THE FIRMS LISTED ON TEHRAN STOCK EXCHANGE

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Abstract

In the present, empirically, the identified factors in studies conducted outside the country, have been evaluated on Tehran Stock Exchange. The population under study includes 101 firms listed in Tehran Stock Exchange that the required information and data for a 6 year period of research (2007 – 2012) for them is available. This study from method and nature point of view of a correlation study and for testing research hypotheses correlation test and linear regression test have been used. Research hypotheses are based on the assessment of three factors including forecast accuracy, frequency of accuracy and forecast validity. With considering the reaction of risk and value of firms toward the announcement of earnings forecast by management as the dependent variable, the findings of the research indicate that there is a direct relationship between the validity of the announced earnings forecast by the management with the firm value. Also, the findings resulting from testing the 2nd hypothesis indicate that there is a reverse relationship between the variable of credibility and the frequency of earnings forecast with unsystematic risk and a direct relationship between forecast errors with unsystematic risk. Regarding the effect of the variables of management earnings forecast on systematic risk no significant relationship was observed.

Key words: management earnings forecast, Mandatory Disclosure, firm risk, valuation

1. Introduction

One of the most important factor of countries development is the existence of a valid, correct and relevant information system that through providing correct information will reduce doubts and facilitates decision-makings, because correct decision-making either by economic agencies or by investors and analysts is so much sensitive and difficult. This requires the access of users to clear, updated and comparable information. This is only in this case that with making correct decisions, the contexts for optimized allocation of human and material resources will be provides and the development steps will be taken one after another.

Here, capital market and its role in resource distribution are so much important. When decisions of capital market will be taken based on the best and the most reliable information, automatically the contexts and requirements for optimized allocation of resources will be provided. However, from where and by whom these information are provided to the market and whether all the information which are provided to the market are reliable or whether these information should be assessed and evaluated? Surely these questions need to be answered. One of the most important information sources in capital market are information and forecast that are provided by firms management to the market. Of course there are other information sources which are important as well. However, the disclosed information by the manamgnet is a valuable and a potential source of information for investors. The importance of the present study is that in an empirical way will show to managers,

investors and other decision makers that the earnings forecast by managements is effective on the risk and value of a firm and employing better disclosing methods is related with higher valuation of firms and reducing capital cost and reducing risk .

In this chapter after stating research problem, the importance and necessity of research will be discussed. After that the theoretical framework of the study will be presented which is the main topic of the study and following that research hypotheses will be discussed and then analytical model and research aims will be presented in a general frame.

2. Theoretical and research background

Prakash and Anderson (1994) have studied the relationship between risk and corporate profit growth. First they assumed that risk adverse investors, in a period expect to maximize the firm value and have defined profit growth as the growth rate in dividends. From theoretical point of view they proved that systematic risk has a positive relationship with profit growth and also with studying the information of 651 firms during the time span of 1982 – 1987 found empirical evidence that systematic risk is related to the growth rate of net profit and operational profit.

Yesenji et al. (2002) have compared the time of the identification of the forecasted earnings in two countries of America and Canada and have concluded that American firms probably when the bad news is coming will forecast earnings; however, Canadian firms will forecast earnings when good news exists during the forecasting period.

Clement et al. (2003) have studied the relationship between announcement of forecast news of earnings by management and changes in stock prices and have concluded that these announcements in addition to affecting the stock price will also affect the Dispersion of financial analysts' forecasts as well.

Mandi et al. (2003) have found that Japanese analysts forecasts is conducted with higher accuracy and comparing to firms who report loss, they forecast profit with less skepticism; however, in cases in which Earnings forecasts are less accurate, usually it is forecasted with more Optimism. Accuracy of forecasting and Management bias is not related to the firm size; however, they are associated with the reported losses and earnings.

Kikon (2005) with the use of 120,022 observations during the time span of 1990 to 2001 has calculated the forecast deviation, forecast error and optimism in earnings in America. Forecast deviation, forecast error and optimism in earnings in a steady way has reduced during the period under study. This has been specially notable among firms who had suffered loss, such that the difference of forecast error in the end of the period under study has been so much minor and small..

Jeningse in 1987 in his study “irregular movement of stock price, management earnings forecast and revision in analysts’ forecast” has studied the effect of provision of earnings forecast by management on stock price. In this study it has been shown that earnings forecast affects stock price in two ways, first, through information weight and second, thought the validity rate of the forecast. He concludes that the necessary condition for the effectiveness of the earnings forecast on stock price is its reliability. If the credibility of a forecast will be low, even if it contains information weight its effect on stock price will be low.

Povnall and Vasli and Waimir in a study “the effect of different types of forecast on stock price” in 1993 have studied and evaluated the effect of broad forecasts, spot forecasts, forecasts with short-medium and long-term on stock price at the time of presenting the forecasts. The results of their study revealed that spot forecasts comparing to other forecast have higher credibility and have a larger effect on stock price. Also, the investor’s reaction toward quarterly forecasts was larger than toward the annual forecasts.

Neg et al., in 2006 in a study “management forecast, disclosure quality and efficiency of market” have evaluated and studied the reaction of stock return following the management forecasts as well as the effect of disclosure quality on the volume and magnitude of the return. According to this study the abnormal return of stock has a direct relationship with the news of management forecasts and also the magnitude and largeness of this abnormal stock return has a direct relationship with the credibility of the management forecast and in the meantime the magnitude of this abnormal return following the management forecast for firms that contain highly positive news is larger than those firms containing bad news.

Frank et al. (1995) have studied optional disclosure and financing from outside the firm and have found that there is a significant relationship between disclosure of earning forecast and inclination of firms for joining capital markets and financial financing from outside of the firm for forecast in shorter periods of time before presenting the forecast comparing to other times doesn't have more importance.

Macnami have studied the partiality and accuracy of earnings forecasts by management according to 1989 Provisions (Dealing with management forecasts) in Canadian firms. The findings of this study indicate that audited forecasts significantly have less positive partiality (optimism) comparing to other forecasts under study. However, regarding the forecast's accuracy no significant relationship has been observed.

Baginski et al. (2002) have studied the effect of Regulatory environment on voluntary disclosure of management earnings forecasts. They state that due to Fear of legal liability first of all don't have any inclination toward disclosing their forecasts voluntarily and secondly in the periods they are facing bad news, the frequency of earning forecast increases.

Yaghi Shi et al. (2009) have studied the economic outcomes of management earnings forecast during 1998 to 2007 and specifically have studied the multiple effects of characteristics of management forecasts (occurrence, frequency, accuracy, credibility and reputation) on firm's risk and value). For risk measurement they have use five criteria of Difference between bid and offer prices, bankruptcy risk, systematic risk, unsystematic risk and Aggregate risk. Also, the findings indicate that management earnings forecast with higher frequency, accuracy and credibility indicate to a marginal interest in the firm's value.

Fong (2009) has studied the role of the accuracy of management forecast in error estimation of management earnings forecast. In his study he concluded that there is a significant and negative relationship between forecast accuracy and forecast error. These findings are consistent with this hypothesis that those forecasts are optimistic that are accompanied with lower level of accuracy. Also, this relationship is stronger for forecasts with longer time horizons.

Hotten and Stocken (2009) have studied the firm's registered forecast characteristics and how they affect previous earnings forecasts in response to the investors to future earnings forecasts. In their study they have concluded that previous forecasting behavior of a firm creates popularity and credibility for these forecasts.

Scanner in 1994 in his study “why company voluntarily disclose their negative (bad) news” deals with the issue of the nature of news and its effect on stock price. In this study in addition to mentioning different types of news managers can present to the market, it is shown that managers due to different reasons are inclined to announce bad news sooner than the due time to the market. The reasons behind this are related to achieving popularity and preventing sharp decline in stock prices at the time of announcing the real earnings. He also shows that managers try to present good news in a quantitative way in annual EPSs, while they present bad news through Descriptive Announcements to the market.

Frost in 1997 in an article “disclosure of firms that their audit is unacceptable” has studied the way of forecast conduction in firms with financial problems. The fundamental assumption of his study is based on the existence of a relationship between the type of auditors reports and the reactions of analysts and the findings of this study reveals that if the report of the auditor will be accepted it will casue the review and revision of the analysts forecast following the management forecast, otherwise, it will have less revisions.

Otaw in 2005, in his study of “whether capital market knows the partiality in earnings forecast by the management” has identified and evaluated the effective factors on deviation of the management in earnings forecasts. In this research 10 variables including macroeconomic variables, firm size, and type of financial financing, type of industry, facing with financial crisis, stock trading volume, and error in previous forecasts, growth rate, loss and dividends have been identified as effective variables on devitation from forecast. In such a way that each of these variables can be effective on increasing or decreasing the management forecasts.

Ali Amarloo (1998), in his Dissertation for master has studied the effect of Forecasted earnings per share by management on stock price. He has studied that whether forecasted earnings announcements containing information content are useful and are useful in user’s decision making? The results of the conducted analysis indicate that the earnings forecast reports doesn’t convey any information to capital market and dissemination of information in general causes the information and future events including the forecasted earnings to be conveyed through unofficial information sources and therefore capital market is unaffected by the release of public information.

Mohammad Azad (2004), has studied the information content of firms earnings forecast in his master Dissertation. He studied 58 manufacturing companies in Stock Exchange containing 606 profit reports during time span of 1998 – 2002. The findings indicate that there is a significant relationship between the forecasted earnings and the actual one. Also there is significant relationship between forecasted earnings by firms and stock return.

Sabet (2005) has studies the effect of five variables of firm size, financial crisis, growth rate, External financing and Controlling prices in the industry on corporate managers bias in earnings forecasts. The findings of his study indicate that on an average basis, earnings forecast of the firms has been done optimistically. And external financing is effective on earnings forecasting. He concluded that smaller firms make more pessimist forecasts comparing to larger firms. Also with increasing the level of financial crisis also earnings forecasting is announced more pessimistically. However, in his studying he didn’t find a significant relationship between firm’s growth rate and prices control in industry with partially in forecasting.

Bahramian (2006) has evaluated the accuracy of earnings forecast per share of firms that their stock has been presented for the first time in Stock Exchange. The findings of this study indicate that the error of earnings forecast has a direct relationship with forecast period and the Exchange Volatility Overall Index and regarding the firm size, company life, financial leverage degree, auditing comment and industry category no significant relationship was observed.

Akbari (2008) has studied effective variables on the credibility of earnings forecast by management during the time span of 1996-2007. The results of his study indicate that first of all announcement of bad news (less forecasts earnings than past) comparing to good news creates a greater reaction in stock price. In other words, market brokers believe and trust more in bad news comparing to good news. Secondly, firm size has a greater effect on the acceptance and believes of the investors of the forecasted earnings. Also the corrected of the previous forecasts is effective in the future forecasts. In addition, Quarterly forecasts comparing to annual forecasts creates greater reaction in stock prices

and eventually that the existence or lack of existence of adjustment is not effective on the belief or credibility of the future forecasts. This means that investors look suspiciously at the forecasts containing good news, forecasts provided by small companies, forecasts provided by companies that in the past had have so much of deviations and to their annual forecasts and from their point of view there is more chances of error in the forecasts of these firms.

Nasrin Alinaghian (2010), has studied the relationship between earnings forecast error and Business and financial risk in listed companies in Tehran Stock Exchange. In her study she has studied unsystematic risk according to two criteria of risk i.e., financial and business risks. Financial risk has been measured according threes criteria of leverage ratio, current ratio, total assets. The findings have confirmed the relationship of earnings forecasts error with two variables of leverage ratios and assets. However, the relationship of forecast error with current ratio remains unknown and the possibility of judgment doesn't exist about this relationship. However, in general considering the fact that out of three criteria two of the criteria have the power of predicting the error of earnings forecast per share we can conclude that there is a relationship between financial risk and earnings forecast error and in companies with high financial risk they will face problem in estimating their earnings forecasts. Regarding business risk two criteria of Average two-year fluctuations in earnings per share and dividends ratio have been used. the studies in this regard indicate that both criteria have significant relationships with Earnings forecast error. Therefore, there is also a significant relationship between business risk and Earnings forecast error per share.

Ashtab (1389) has studied the relationship between Earnings forecast error and abnormal stock returns in new comers companies. the findings of this study indicate to a positive relationship between these two variables that eventually indicates to the variable information content of earnings. In other words, announcement of the forecasted earnings will divert the average rate of abnormal stock return. This finding also in a way confirms the Permanent positions of Financial Accounting Standards Board regarding the importance and priority of earning in informing the stakeholders which has been confirmed in most of the conducted studies.

3. Research hypotheses

The present research hypotheses are divided into three group of main hypothesis. The first group deals with the Forecast earnings per share by management with firm risk and the second group deals with forecast earnings per share by management with unsystematic risk and the third group deal with forecast earnings per share by management with firm value.

1st main hypothesis

There is a significant relationship between earnings per share forecast by management with firm risk.

Secondary hypotheses

- 1- There is a significant relationship between the frequencies of earnings per share forecast by management with systematic risk.
- 2- There is a significant relationship between the accuracy of earnings per share forecast by management with systematic risk.
- 3- There is a significant relationship between the credibility of of earnings per share forecast by management with systematic risk.

2nd main hypothesis: there is a significant relationship between Earnings per share forecast by management with un-systematic risk.

Secondary hypotheses

- 1- There is a significant relationship between the frequencies of earnings per share forecast by management with un-systematic risk.

2- There is a significant relationship between The accuracy of earnings per share forecast by management with systematic risk.

3- There is a significant relationship between The credibility of earnings per share forecast by management with systematic risk.

3rd main hypothesis: there is a significant relationship between Earnings per share forecast by management with firm value.

Secondary hypotheses

1- There is a significant relationship between The frequency of earnings per share forecast by management with firm value.

2- There is a significant relationship between The accuracy of earnings per share forecast by management with firm value.

3- There is a significant relationship between the credibility of earnings per share forecast by management with firm value.

4. Research variables

In this study firm value and firm risk have been considered as dependent variables and earnings forecast has been considered as independent variable and control variables include firm size, financial leverage, firm growth, return on assets, positive news and loss.

5. Analytical model and measurement method of research variables:

Independent variable

In this study, independent variable is the presented earnings by management which three characteristics of earnings forecast as per the following has been studied:

Frequency of forecast: it is obtained as Total number of initial forecasts and number of revisions in earnings forecast till the end of the fiscal period.

Accuracy of forecast: which is calculates in the following way:

A) difference of forecasted earnings (loss) for actual earnings (loss) divided by Absolute earnings (loss) forecast

B) The absolute difference of earnings (loss) forecast from actual earnings (loss) divided by Absolute earnings (loss) forecast

C) Square of difference of earnings (loss) forecast from actual earnings (loss) divided by square of earnings (loss) forecast

D) Natural log square difference of earnings (loss) forecast from actual earnings (loss) forecast from actual earnings (loss) forecast divided by the square of earnings (loss) forecast

Firth & Smith (1992) have used the first three methods and Gonopolos has used the four mentioned methods for calculating the accuracy of forecast and the present research has used the fourth method for this purpose that for calculation of forecasted earnings (loss) has used the first forecast.

Credibility of forecast: for the measurement of this variable the realization of the previous period forecast is used as an index for the measurement of the management reliability. In other words, the percentage of the increase or decrease in the actual reported earnings comparing to what has been previously forecasted. This terms in the studies of Williams (2005), Hirset et al. (1999), Stoken (2000) and Haton & Stoken (2007) which is calculated as per below:

$$MEF = \frac{EPS_{t-1} - MF_{t-1}}{P_t}$$

EPS_{t-1} = Actual earnings of the previous year

MF_{t-1} = the first earnings forecast in the previous year

P_t = stock price in the beginning of the current period

Dependent variable

The dependent variables of the present study are:

Firm value: for calculation of firm value Q-Tubin criterion has been used. for calculation of Q-Tubin different methods and version exists, however as it was mentioned in chapter 2, considering the available information in financial statements and The notes accompanying the financial statements and the existing limitations especially regarding accessing our required information and data, calculation of the debts markets value and the replacement value of the assets of firms active in Tehran Stock Exchange in difficulty in most of the times is impossible, due to this reason the following simple version of Q-tubin has been used:

$$Q_s = \frac{VOCSI + EMVOPSI + BVLTLI + BVCLI}{BVTAI}$$

VOCSI= normal stock value in the end of the fiscal year

EMVOPSI= Year-end market value of preferred stock

BVLTLI = book value of long-term end-year debts

BVCLI = Year-end book value of debt with a maturity of less than one year

BVTAI = Year-end book value of total assets

Firm risk: for risk calculation, capital assets valuation model has been used:

$$R_i - R_f = \alpha_i + \beta_i(R_m - R_f) + \varepsilon_i$$

Actual return (R_i): return on investment in normal stock in a specified period is obtained considering the price of the beginning and end of the period and the Benefits resulting from ownership. The shareholders will be entitled to the benefits resulting from ownership at the periods in which the firm has held a meeting and in the periods that the firm hasn't held any meeting these benefits will be zero. Return on investment in stock will be calculated from the following relationship:

$$R_{it} = \frac{(P_t - P_{t-1}) + D_t}{P_{t-1}}$$

Where,

P_t = stock price at the end of period t

P_{t-1} = stock price at the beginning of period t or at the end of period t-1

D_t = benefits resulting from stock ownership to which shareholders are entitled.

That these benefits are paid in different forms to shareholders, the main forms include: Cash dividends, Capital increase of reserves (bonus shares), Capital Increase of receivables and cash, stock Splits and shares Accumulation.

$$R_i = \frac{(1+\alpha)P_{t+1} + DPS - P_t - C}{P_t}$$

α : percentage of capital increase (from reserves or cash and receivables)

C: Cash is at the time of raising capital

Market return (R_m): for calculation the rate of market return Stock price index and stock return is used. The reason of choosing total price index and stock return is that the fundamental flaw in Stock price index is not present in it. It is because one of the flaws of Stock price index is that it doesn't consider and count the important effective factor on price changes, i.e., Increments allocated in the annual general meetings of companies and is unable to present the actual return on the securities in the index basket or revealing the reason and nature of the movement of price. Naturally, a more correct interpretation and deduction of the index requires another Criterion which can reveal Factors affecting the price changes in the stock market (Abdollahzadeh, 2003, 24). In this regard, total price index and stock return are appropriate indices that can measure the effect of Dividend factor on price index.

On this basis, the monthly rate of return on the market portfolio with the use of the below equation from the beginning of 2007 to the end of 2012 has been calculated.

$$R_m = \frac{TEDPIX_t - TEDPIX_{t-1}}{TEDPIX_t}$$

Return without risk (R_f) refers to the Average rate of return that investors expect to achieve without bearing any risk. Securities that don't have any risk are known as Risk-free securities (Peino, 2004). Considering the characteristics of Participation bonds in Iran that are guaranteed by the banks regarding the original amount of the money plus the profit of the participation in investment and also redeem of the securities to Nominal amount prior to the maturity date, the rate of this securities have been considered as the return rate without risk.

From the equation through regression, β_i has been extracted as the criterion of systematic risk and the standard deviation of errors also has been considered as the criterion of non-systematic risk.

Control variable

In order to study the effect of other variables, required control variables have been determined. These variables are:

Firm size: determines the volume and the extent of a firm's activities. Larger firms due to greater communications with stakeholders and existence of greater controlling mechanisms face with lower risk. Also in larger firms, due to Precise control and monitoring systems, employment of specialized employees and managers, responding to a large spectrum of investors and creditors are among the reason behind more accuracy in earnings forecast. For calculating the variable of firm size criteria such as firm's assets size and market value are used. Considering the inflation situation and the fact that the assets figures and statistics are historical, market value of ordinary stock logarithm has been used as the variable of firm size.

Financial leverage: refers to the existence of fixed costs in the list of firm's costs and expenses. Financial leverage is obtained by dividing the sum of total debt to total assets. The etymology of leverage of the similarity between the benefit results from reliance on mechanical lever and the benefit resulting from reliance on fixed costs and expenses. As much as the degree of financial leverage will be greater, the greater will be the financial degree of risk; because if the degree of financial leverage will be great with the relatively small reduction in the rate of profit before interest and tax, earnings per share can be negative.

The ratio of intangible assets to total assets: this variable shows the asymmetry degree of information; as much as the intangible assets increase in can indicate to the existence of higher intellectual capital the valuation of which is much more difficult for investors.

Firm growth: one of the competitive advantages is the growth rate of any firm. Irani (2001), has found that firms with a growth rate higher than the average of the industry forecast their earnings optimistically. Otaw (2002), states firms that have abnormal growth usually have pessimistic forecasts. Matsomoto (2002) has concluded that firms with high growth rate are more inclined to direct the analysts' forecasts to the directions which are consistent with their expectations with actual earnings. Yaghi Shi (2009), states that this variable achieves a future prospect of a firm and firms that are growing fast have more informational asymmetry comparing to others. A firm's growth is calculated from the difference in the sales of the current year and the previous year divided by the sales of the previous year.

Return on assets: is one of the profitability ratios the general aim of which is the measurement success or failure rate of the firm in using its financial resources. The specific aim of calculating return on assets is to measure the total profitability of assets. In general it is expected that the firms that have a higher level of this ratio will have a better performance and as a result will have risk (Yaghi Shi, 2009). This ratio is calculated as the operational profit divided by total assets of a firm.

Positive news: with considering positive news as a virtual variable, this variable will take a value of 1 to it, if the difference of the forecasted earnings of the current year with the actual earnings of the

previous year is positive; otherwise will take a value of zero. It is expected that those firms with positive earnings growth will face less risk.

Loss: this variable also is considered as a virtual variable and assumes a value of 1 to it, if the firm has reported loss during the past 12 months; otherwise it will assume a value of zero. It is expected that firms that recently have reported loss will be at the face of more risk.

7. Scope of research

The scope of research is studied in three areas of topic, place, and time in order to be able to collect the required data in the framework of these areas and analyze them.

Topic territory: in the present research we have studies the effect of management earnings forecasts as independent variable and firm risk and value as dependent variables.

Place territory: the place territory of this research is the firms listed on Tehran Stock Exchanges.

Time territory: the time territory of this research is a 6 year span of time between 2007 to the end of 2012.

8. Data collection methods

In this research for literature review bibliographical method including books, different articles and National and international publications have been used and for collecting the required data and testing the research hypotheses field method and using empirical data have been used.

9. Data collection tools

For conducting the research and making correct conclusion from the study, the information and data used in the study play an important role. The data and information used in this study are divided in to two groups:

The first group includes the information related to theoretical principle and literature review which has been gathering through studying books, articles, Dissertations and through bibliographical studies.

The second group is the financial information and data which are related to the firms listed in Tehran Stock Exchange that have been extracted from the management, research, development and Islamic studies at the Securities and Exchange website and other required information has been extracted from RahavardNovin software. Then the collected data was organized in excel and the necessary calculations were performed and finally the resulted data were analyzed with the use of SPSS software.

10. Research population and sample

Due to the population of the research being extensive, most the research often try to limit this population by adding some conditions. Among the advantages of this is the possibility and facilitation of research and saving time and money. However, on the other hand, with limiting the research population (sampling) new concerns are creates for the researcher. Although it is possible that sampling can have the above advantages; however, can reduce the external and structural validity of the research and can create doubt in researcher regarding the possibility of generalizing the findings of the sample to the population and for this reason the researcher should consider the following in his sampling:

A) The sample should be an actual representation of the population under study.

B) Sample should be selected randomly from the members of the population.

In the present research considering the above stated as well as the relative limitations of the population under study and for increasing the research validity and decreasing error and other consequences of sampling it has been tires to test all the members of population after imposing the limitations. Although in this way collecting the information necessary and related to the entire research population considering the information limitations might appear so much difficult;

however, on the other hand, regarding the results and findings of the research with a higher level of confidence we can judge. Considering the above stated descriptions, the population in this study includes all the firms listed in Tehran Stock Exchange for the time period of 2007 – 2012 with considering the following conditions:

- 1- Should have been listed in Tehran Stock Exchange before fiscal year of 2007 and should have existed from it until the end of fiscal year of 2012.
- 2- The firms shouldn't have trading halt for more than 3 months.
- 3- Their fiscal month should end at 20th of march of every year and during their period their fiscal month should have been changed. The reason of choosing this condition is that in calculation of the variables the time periods will be similar as much as possible and seasonal conditions and factors will not be effective in the selection of variables and factors.
- 4- The firms should not be among investment (holding) and financial intermediation. Investment firms with adjusting earnings per share by their investee company will adjust their own earnings per share and therefore, these kind of companies will be a function of the actions of other companies and therefore they have been deleted.

With imposing the above mentioned limitations from 273 firms, 101 firms for every year and a total of 606 firms/years have been selected and the required data have been extracted from them. The name of sample firms has been provided in the appendix.

11. Data analysis and hypotheses test

In the present research the used methods for data analysis and hypotheses test are as per the following:

For calculating the independent variables and dependent variables Excel software has been used.

For testing hypotheses linear regression test and for testing whether the correlation between variables is significant P-Value (sig) through SPSS software has been used.

Usually for gaining a better understanding of the research population and getting more familiar with the research variable, data description is performed prior to data analysis. Also, data descriptive statistics is a step toward recognition of the dominant pattern on them and a basis for explaining the relationships between variables that are involved in the study.

The following table contains some indices for describing the research variables. These indices include central, dispersion and distribution shape indices.

Table (1): indices describing variables under central, dispersion and distribution indices

variables indices	Firm value	Unsystematic risk	systematic risk	Forecast accuracy	Forecast frequency	Forecast credibility
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Quantity	606	606				
Average	0.2896	-0.1722	491	606	606	606
Mean	0.2445	-0.2428	0.9181	-2.8296	2.926262	-0.685
Mode	0.25	0.20	0.9077	-2.5880	3.000	-0.0143
Standard deviation	0.3343	0.72442	0.89	-5.55	3.000	0.00
Variance	8	0.525	0.54738	2.65748	1.2874498	0.22891
Skewness	0.112	0.550	0.300	7.062	1.658	0.052
skewnees coefficient Standard	0.468	0.118	0.248	-0.410	0.537	-4.927
error	0.118	0.566	0.143	0.118	0.118	0.118
kurtosis	-0.312	0.235	-0.87	2.449	0.390	39.292
kurtosis coefficient Standard	0.235	-2.09	0.285	0.235	0.235	0.235
error	0.57	2.28	0.08	-13.98	1.000	-2.59
lowest	1.20		2.22	7.94	8.000	0.61
Highest						

Financial leverage	growth	Ratio of intangible assets to total assets	loss	Return on assets	Size	Positive news
606	606	606	606	606	606	606
0.6243	18.3949	0.0040	0.0491	14.40409	26.9126	0.6098
63.00	15.0201	0.0004	0.000	13.0450	26.8473	1.000
0.64	-69.39	0.00	0.00	13.55	26.83	1.00
17.285	34.3869	0.00771	0.21626	11.66112	1.37706	0.48836
0.030	1182.459	0.000	0.047	35.982	1.896	0.238
0.091	2.361	5.246	4.190	0.430	0.450	-0.452
0.118	0.118	0.118	0.118	0.118	0.118	0.118
0.681	14.395	50.679	15.629	1.963	0.183	-1.804
0.235	0.235	0.235	0.235	0.235	0.235	0.235
0.10	-69.39	0.00	0.00	-32.74	23.73	0.00
1.31	297.49	0.10	1.00	62.74	31.33	1.00

This table includes indices from describing the research variables. The first row indicates the number of data. The second row indicates the average of data that if the data will be ordered on one axis it will be exactly placed in a Interactive polint with the Distribution center of gravity. Mean indicates that 50% of the data are smaller than the middle number of the set and 50% of it are larger than the middle number of the set. The closeness of the value of average and mean, indicates to the symmetry of data. Mode also indicates that the data have the highest frequency. Standard deviation and variance show the data dispersion. Skewness expresses the asymmetry of distribution over a given index. Also, the ratio of skewness coefficient to its standard error is known as standard error of skewness coefficient, which can be considered as normality test. If this value is smaller than -2 or larger than +2, the assumption of normality will be rejected. Eventually the dispersion measurement index of the population over it normal distribution is known as Kurtosis, that the ratio of kurtosis coefficient to standard errot is known as standard error of kurtosis coefficient. In the last two rows also, the the highest and lowest observations are related to the reported data.

Considering the output of SPSS software, the below tables, and considering the sig. value of less than 10% or more than 10% the existence of correlation between variables will be confirmed or rejected. Also, the calculated correlation coefficient is effective in determining the correlation between variables and ranking From the perspective of being able to predict systemic risk.

Table 2 presents the summary of the results of the hypotheses test considering the extracted information from SPSS software and presents the results of every hypothesis separately.

Table (2): a summary of findings of hypotheses test

Statistical components Hypothesis summary	Pearson's correlation coefficient	Determining factor	Adjusted determining factor	t-value	Sig. value	Test result
The relationship between frequency of earnings forecast per share and firm value	0.449	0.460	0.678	1.191	0.234	Hypothesis rejection
The relationship between accuracy of earnings forecast per share and firm value	0.448	0.458	0.677	-0.440	0.660	Hypothesis rejection
The relationship between credibility of earnings forecast per share and firm value	0.456	0.466	0.683	2.547	0.011	Hypothesis confirmation
The relationship between frequency of earnings forecast per share and unsystematic risk	0.110	0.127	0.356	-4.165	0.000	Hypothesis confirmation
The relationship between accuracy of earnings forecast per share and unsystematic risk	0.099	0.116	0.340	3.456	0.001	Hypothesis confirmation
The relationship between credibility of earnings forecast per share and unsystematic risk	0.93	0.110	0.332	-3.040	0.003	Hypothesis confirmation
The relationship between frequency of earnings forecast per share and systematic risk	0.53	0.079	0.282	1.297	0.196	Hypothesis rejection
The relationship between accuracy of earnings forecast per share and systematic risk	0.053	0.079	0.281	-1.236	0.217	Hypothesis rejection
The relationship between credibility of earnings	0.048	0.074	0.273	0.355	0.723	Hypothesis

forecast per share and systematic risk						rejection
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12. Research results

Results of 1st main hypothesis

“There is a relationship between management earnings forecast and firm’s value”.

The obtained results from the test of this hypothesis indicate that the Pearson’s correlation coefficient between dependent and independent variables is (0.685) which indicate to the existence to a strong correlation between variables. Also the adjusted determining factor equal to 0.456 indicates that 46% of the changes of firm’s value are dependent on independent variables. Considering the fact that sig. value of the test is less than 5%, at 95% confidence level H1 hypothesis is accepted and in other words the existence of correlation between variables is confirmed. Also, the obtained results from the significant test of the coefficients indicates to the existence of a positive and linear relationship between the credibility of management earnings forecast and firm’s value. In other words, with increasing the credibility of the management earnings forecast the firm’s value also increases, i.e., as much as the realization rate of the previous period’s earnings forecast as the measurement index of the management credibility is higher, a higher increase is achieved in firm’s value. However, regarding the other two variables of the frequency of the forecast and the error of forecast no significant relationship was found. Considering the table in chapter 4, among the considered control variables; size, financial leverage, return on assets and loss variables have a significant levels less than 5% that can be considered as effective variables on the relationships between the characters of earnings forecast and firm’s value. Yaghi shi (2009) in his study has found that there is a direct relationship between the three variables of accuracy, frequency and credibility of forecast and firm’s value. However, in the population under his study, earnings disclosure has been presented as voluntarily. Poorheidary et al. (2007) also have found that a significant part of the changes of firm’s value are determined by earnings.

Results of 2nd main hypotheses

“There is a relationship between management earnings forecast and unsystematic risk”.

The results obtained from the test of this hypothesis indicate that Pearson’s correlation coefficient between dependent and independent variables is (0.395) and indicate to a weak correlation between the variables. Also, the adjusted determining coefficient equal to 0.136 indicates that 14% of the changes of the unsystematic risk are dependent to the independent variables. Considering the fact that significant value of the test is less than 5%, with 95% confidence level H1 hypothesis is accepted and in other words, the existence of correlation between these variables is confirmed. Also, the obtained results from significance test of the coefficients indicate to the existence of a negative relationship between frequency and credibility of management earnings forecast with unsystematic risk. In other words, with increasing the frequency and the credibility of the manamgnet earnings forecast, unsystematic risk decreases, i.e., as much as the manager efforts to bring the earnings forecast close to the actual earnings, through adjustments, increases, unsystematic risk will decrease and as much as Percentage increase or decrease in real earnings reports over what it has been previously forecasted increases, firms will face with lower risk. Also the results of this hypothesis show that there is a positive relationship between the forecast error and unsystematic risk. Botosan and Harris (2000) findings are consistent with the findings of the present research. In their study they have found that increasing the frequency of forecasts can improve the content and timeliness of the information. Also with providing the information more frequently, the management can provide more relevant information for the market that all these advantage can lead to reduce the risk or

Uncertainty of future cash flows. Also, Graham et al. (2005) have stated that disclosure of reliable information decreases the risk of corporate information. Izadinia and Alinaghian (2010) also, have studied the relationship between earnings forecast error and business and financial risk and have found similar findings. They have concluded that the firms that have high financial risk they are so much likely to face problem in meeting their earnings forecast. Also, those companies that are having high business risk are less likely to be able to cover their earnings forecast in a proper way.

The results of 3rd main hypothesis

“There is a relationship between management earnings forecast and systematic risk.”

The results obtained from the test of this hypothesis shows that Pearson’s correlation coefficient between independent and dependent variables is (0.296) and indicate to a weak correlation between the variables. The significance level of f-value is less than 5%; however, due to the fact that the significance level of the coefficients of the independent variables are more than 5% the claim of the researcher based on the existence of a relationship between systematic risk and management earnings forecast at confidence level of 95% is rejected. In fact, management forecast cannot create changes in the risk of the market. While Yaghi shi (2009) in his study has found that there is a negative and significant relationship between issuance of management forecast and Risk measurement criteria including beta, Volatility of stock returns, The difference between bid and offer prices and Risk of bankruptcy.

13. The overall conclusion of the study

For an overall summarization and conclusion of the research hypothesis indicating to a significant relationship between the independent variable of management earnings forecast with firms’ value and risk during the period of 2007 – 2012 it can be stated that the variable of management earnings forecast has a linear significant relationship with firm value which indicates to the fact that firms with presenting reliable forecasts can experience Ascending and Shareholders' expectations about future earnings can be a main factor in determining the total value of the firm. In studying the next hypothesis it was revealed that management earnings forecast has a linear significant relationship with un-systematic risk which indicate to the fact that with presenting accurate and reliable forecasts firms can reduce and decrease their risk. However, in the third hypothesis, it was revealed that earnings forecasts cannot have any effect on market risk and this risk gets effect from other factors which haven’t been considered in this study.

14. Some recommendations based on research findings

- 1- Considering the existence of Uncertainty in the management earnings forecasts and lack of a mechanism for Disambiguation it is recommended that Exchange Organization will create a level of financial analysts for evaluations of managements forecasts of earnings and presenting new forecasts to the market.
- 2- Considering the market sensitivity to the quality of the earnings of small firms it is recommended that Custodians of capital market have more supervision on earnings forecast in these firms.
- 3- It is recommended that Tehran Stock Exchange with the cooperation of Iranian Society of certified public accountants will make some arrangements to evaluate the accuracy of the management forecasts of earnings and sales before announcements and consider the fact that making the disclosure of information mandatory doesn’t necessarily mean the improvement of the information environment of companies; because the results of the company disclosure can be simply be the reflection of ordinary errors that have been created due to inaccurate evaluation of the managers from business horizon.

4- It is recommended that the custodians of the capital market will think of strategies to inform the investors about the deviation rate of earnings forecast over actual earnings of every firm together with the reasons of the deviations periodically through announcements.

5- Preparation of statistical programs based on statistical models for future earnings forecast according to past earnings elements and making it available to all those who want to use these advanced model for earnings forecast.

6- Preparing a guideline for presenting earnings forecast per share by a committee consisting of the Representatives of stock, standard-setting bodies and the Society of certified public accountants of Iran.

7- It is recommended to investors and analysts that at the time of analyzing accounting information, give more care to the evaluation of earnings especially regarding the firms who are working in uncertain environments.

15. Some recommendations for future studies

1- Repeating the topic of the present study with adding other variables which appears to be effective and conducting it with more observations in future years.

2- Some of the study fields that can deepen our understanding and strengthen the literature related to managers' disclosure are as per the following:

A) The investors' reaction level at the time of the announcements of actual earnings when the actual earnings is different with the forecasted earnings.

B) The effect of popularity on management forecasts on increasing the credibility of the forecasts which are inherently less reliable.

C) Studying the relationship between management forecasts of earnings with firm's value and risk at the level of different industries.

D) The effect of macroeconomic factors such as domestic gross production, inflation and ... on management forecasts of earnings.

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