

# The Relationship Between Characteristics of Forecast Earnings of Per Share by Management with Cost of Capital, Market Value and Systemic Risk in Tehran Stock Exchange

Jamshid Rajabi Aghmasjed<sup>1</sup>, Zahra Amirhosseini<sup>2</sup>

<sup>1</sup>Department of Accounting, Shahr-e-Qods Branch, Islamic Azad University, Tehran, Iran, <sup>2</sup>Assistant Professor, Department of Management, Shahr-e-Qods Branch, Islamic Azad University, Tehran, Iran

## Abstract

The main goal of this study was investigating The relationship between characteristics of forecast earnings of per share by management with Cost of capital, market value and systemic risk In Tehran Stock Exchange During 2010 to 2014. which in this way, characteristics of forecast earnings of per share by management (Accurately of profits prediction, and the timely per share earnings publication) was investigated As independent variables, and Cost of capital, market value and systemic risk was analyzed As dependent variables. Also Firm size, leverage, sales growth and the ratio of tangible assets was investigated as control variables. the statistical sample of study was 102 companies. The research method was descriptive correlational method with applied approach. In general, the statistical methods used in this study was Correlation method, and multiple regression. The result of this study showed that, There is a significant inverse relationship between characteristics of forecast earnings of per share by management with Cost of capital, market value and systemic risk. Also, There is a significant and direct correlation between characteristics of forecast earnings of per share by management (timely publication of per share's earnings, Accurately of profits prediction) with the value of the company.

**Key word:** Earning Forecast, Cost of capital, Market value, Systematic risk

## INTRODUCTION

Profit is one of the major items of financial statements, Which attracted attention of users of financial statements. Investors, creditors, managers, employees, analysts, government and Other users of financial statements use from profit As a basis for investment decision making, loans, policy of interest payments, companies assessment, tax calculation, and Other decisions related to the company. Too much emphasis of capital markets, on profit, and related information, causes that this item converted to one of the most important factors of stock

price changes. and by creating Abnormal returns, The value of company depends on it.

On the one hand, Companies for increasing their values, tries To reduce their investment risk. From investors perspective, if the quality and quantity of information published by the company raised, Company information asymmetry, decreased and therefore, The prospect of future performance of company, Becomes clearer. in this situation, Investors, in the case of investment returns have a more precise estimate, and Less adjustments was done in estimates. therefore, the Stock risk of companies with high-quality information reduces. Investors, creditors and other users of financial information In addition to historical information, need information about future of economic units and continually Seeking access to information that show Future earnings trends (Bagynsky and Raky, 2009). According to the above subjects, and effect which Forecast of per share can have on the risk and cost of capital, this research was necessary in order to Providing practical suggestions to the Financial Chiefs.

Access this article online



www.ijss-sn.com

**Month of Submission :** 06-2017  
**Month of Peer Review :** 06-2017  
**Month of Acceptance :** 07-2017  
**Month of Publishing :** 07-2017

**Corresponding Author:** Zahra Amirhosseini, Professor, Department of Management, Shahr-e-Qods Branch, Islamic Azad University, Tehran, Iran. E-mail: Amirhosseini\_zahra@yahoo.com

**Problem Statement**

Divided Profit is an important component of investment returns and Since that Anticipated benefit is an important element in calculating the expected return in investments, therefore, Accuracy in profit prediction, and Identifying factors affecting on deviation Is most important. Perhaps the most important factor affecting on stock prices most be investigated in Forecast of per share’s earnings. The most important source of information, for investors, creditors and other users of corporate information, is profit forecasts provided by companies at regular intervals (Jandaghi, 2012).

There are various methods for profits prediction, which from them, Forecasting by managers, and Predictions based on time series models are important way for prediction. since most of investors, do not have knowledge or access to time series models and mostly rely on profit forecasts drawn by management, therefore The accuracy of the forecast provided by managers can be very important (Frankel and Mac Nicholas, 1995).

Forecast in economic decisions have an important role, At the level of economic company, Investors, creditors, management and other users of financial statements rely on their or other prediction. since that More users of financial statements don’t access to financial information, directly, rely on forecasts provided by management (Rahmani, 2014). Researches showed that, market consider sizable value for providing per share expectations and When earnings of per share are more than expected value, show reaction toward Failure to providing it. When earnings of per share is lower than its prediction, Credit of company reduced to meet the expectations (mehrani and Hesarzadeh, 2011).

The purpose of accounting is Providing useful information for investment decisions and Accreditation. Practical information, are information that have qualitative characteristics. These characteristics are consist of relevance and reliability. Relevance means that Accounting information must have the ability to make a difference in a decision. Usefulness in predicting, usefulness of evaluation, and timeliness are elements related to relevance. Information of relevance are information that can be used in the forecasting model. these predictions related to variables which investors like them. Like cash flow, future stock price and other variables. (Kurdistani and Majdi, 2013).

On the other hand, In the field of research, Accounting scholars showed more attention to Evaluation of the ownership right and Understanding changes in share prices

on the stock market So that Investigate the role of profit variables, and Book Value In determining the market value, allocated Important branches of Accounting Research with title of value relevance of accounting data and Company Valuation (Noravesh and Gholamzadeh, 2012). According to the above Subjects, The main issue of this study is that are there a significant relationship between prediction of per share’s earnings by management with Risk and market value of listed companies in Tehran Stock Exchange?

**RESEARCH HYPOTHESIS**

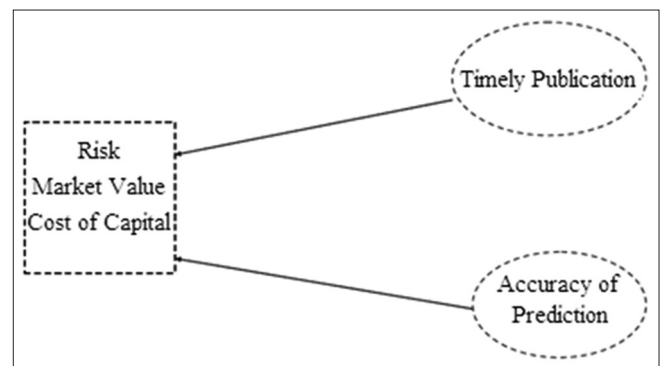
**The Main Hypothesis**

There are a significant relationship between prediction of per share’s earnings by management with Risk and market value.

- 1- There are a significant relationship between timely publication of per share’s earnings by management with Risk of company
- 2- There are a significant relationship between the accuracy of per share’s earnings prediction by management with Risk of company
- 3- There are a significant relationship between timely publication of per share’s earnings by management with market value.
- 4- There are a significant relationship between the accuracy of per share’s earnings prediction by management with market value.
- 5- There are a significant relationship between timely publication of per share’s earnings by management with Cost of company’s capital.
- 6- There are a significant relationship between the accuracy of per share’s earnings prediction by management with Cost of company’s capital.

**Methodology**

This is a correlation study and in terms of goal is a Applied study And in term of time, is retrospective And in terms



**Figure 1: Conceptual model of research**

of results, is result-oriented study. In terms of accuracy, This is a cross-sectional study. Namely statistical sample was investigated only in a special time period From 2010 to 2014, To collect required data.

### Statistical Population of Study

Statistical population of study is all companies listed in Tehran Stock Exchange until the end of 2014. in this study, systematic sampling method has been used which from this statistical population, The sample companies, was selected according to following situation and limitation:

- To select homogeneous sample, Companies must be accepted before 2010 in Tehran Stock Exchange And from the beginning of 2010, Their shares, in bourse, be traded. therefore, 98 companies were excluded from the sample.

In order to select active companies, these companies deals during the 2010 to 2014 in bourse Should not be impaired therefore, 124 companies were excluded from the sample. In terms of increasing comparability, the end of the financial period should be in March therefore, 75 companies were excluded from the sample. Companies Between 2010 to 2014, does not have changes in their activities or modify financial year therefore, 71 companies were excluded from the sample. Access to the required information, is possible therefore, 42 companies were excluded from the sample.

By applying the above requirements, A total of 102 companies were selected as a sample in this study.

### Data Collection Method

Needed information, were collected from Financial statements published by the companies, Official site of the Tehran Stock Exchange and also the database application RAHAVARD novin.

### Descriptive Findings of Variables

#### Testing the normality of variables

To check the normality of the study variables, "Kolmogorov-Smirnov" Test is used.

According to table, Since then normalizing the data, Significance level (Sig.) of Kolmogorov-Smirnov test for dependent variables is higher than 0.05, therefore,  $H_0$  has been confirmed at 95%, and stated that, The company's risk variables, cost of capital and market value after normalization process, are normally distributed.

### The Significance of The Regression Test

According to F statistic in all tables related to regression, Because the significant surface of them is less than 0.05, Therefore the regression model, in all hypotheses, is significant.

### Multicollinearity Test

All status indicators are lower than 15, Which indicates the absence of the multicollinearity between independent variables.

### Lack of Self Correlation Test

Watson doorbin statistic, in each hypothesis test indicates self correlation test between variables. since that this statistic In each regression test table was between 1.5 to 2.5 therefore, there is no correlation problem Between variables.

### Hypotheses Test

In the F test, null hypothesis, shows Using Data Integration toward the opposite hypothesis, namely shows using Panel data. Due to the significant level of the above table, the result of this test showed that, The heterogeneity in sections and. Panel data method is more suitable. After selecting panel data method with using f limer test, Hausman test is done. in this test, If, the null hypothesis Be accepted ( $H_0$ ), Random effect model was used. And in case of rejection of  $H_0$ , The fixed effects model is used.

The results showed that, The value of this statistic for each of these models is significant. And The significance level reported in the above table, ( $p$ -value < .05) shows that  $H_0$  REJECTED In 95% Confidence level for each of these models which Implies using the fixed effects.

**Table 1: Descriptive analyze, of method variables**

Variable	N	Mean	S.D.	Min	Max	Skewness	Elongation
Timely publication of per share's earnings	510	0.2549	0.1672	0	1	3.123	4.890
The accuracy of earnings forecast	510	0.3036	0.4981	0.0095	0.5983	0.191	-1.970
Risk	510	0.2956	0.0419	0.1763	0.4869	2.593	7.177
Market value	510	0.4593	0.2769	0.1724	0.8893	-1.663	3.119
Cost of capital	510	0.2154	0.1252	0.0452	0.6919	-0.003	-0.212
Size of company	510	12.1218	0.0536	9.5107	17.2965	-0.002	-0.211
Financial leverage	510	0.5531	0.2411	0.1730	0.7493	1.223	1.666
Sales growth	510	0.5924	0.1304	0.3316	0.6482	2.337	12.172
Tangible assets	510	0.3177	0.2376	0.0931	0.5911	2.879	11.655

**Table 2: Testing the normality of variables after normalization process**

Variable	Kolmogorov-Smirnov Z	Significance level
Risk of company	2.748	0.825
Cost of capital	3.271	0.916
Market value of company	2.059	0.552

**Table 3: Multicollinearity test**

variables	Special amount	Status indicator
1	0.148	3.832
2	0.183	4.217
3	0.173	5.514
4	0.116	5.938
5	0.192	6.385
6	0.136	7.935

**Table 4: F Limer test (homology of crossover intercept)**

Null hypothesis	Models	F	D.F.	p-value	Results of test
The intercept is the same for all sections	Model1	2.6453	6	0.034	H0 is rejected
	Model2	1.1325	6	0.011	H0 is rejected
	Model3	1.0231	6	0.023	H0 is rejected

**Table 5: Results of Hausman test (the choice between fixed and random effects)**

Null hypothesis	Models	Chi-square	D.F.	p-value	Results of test
Are systematic coefficients have no differences	Model1	5.4503	6	0.000	H0 is rejected
	Model2	4.4528	6	0.043	H0 is rejected
	Model3	4.3452	6	0.001	H0 is rejected

**Table 6: Results of multivariate regression of first and second hypothesis**

Variable type	Symbol	Variable name	Factor	T	Significant level
Depended variables	Y	Risk of company	-	-	-
Fixed amount	A	Alpha	-1.744	-2.648	0.025
Independent variables	X1	Timely publication Earnings of per share	-2.240	-2.788	0.000
	X2	Accuracy of prediction per share's Earnings	-0.324	-2.811	0.004
Control variables		The size of company	-0.627	-2.995	0.020
		Financial leverage	0.722	2.904	0.000
		Sales growth	-0.587	-2.854	0.000
		Tangible asset	1.627	2.795	0.301
		WATSON-DORBIN	1.856	-	-
		f statistic	3.742	-	0.000
	R		correlation coefficient	0.443	-
R square		coefficient of determination	0.197	-	-
Adjusted R square		Adjusted coefficient of determination	0.196	-	-

**First and Second Hypothesis Test**

According to the results of above tables, First and second hypothesis was confirmed And by 95% confidence, there are significant and positive relationship between Timely publication Earnings of per share and Accuracy of prediction per share's Earnings with risk of company.

**Third and Fourth Hypothesis Test**

According to the results of above table, Third and fourth hypothesis was confirmed And by 95% confidence, there are significant and positive relationship between Timely publication Earnings of per share and Accuracy of prediction per share's Earnings with Market Value of company.

According to the results of above table, fifth and sixth hypothesis was confirmed And by 95% confidence, there are significant and positive relationship between Timely publication Earnings of per share and Accuracy of prediction per share's Earnings with capital cost of company.

**CONCLUSION AND RECOMMENDATIONS**

This study, According to findings and The results of hypothesis test have a Proposals for Tehran Stock Exchange, corporate management and shareholders as follows:

- According to the inverse relationship between Timely publication Earnings of per share by management with risk of company and capital cost, It is recommended to Financial Chiefs, that give their responsible of financial reporting Audit to, to renowned, and experts institutions; because the quality of these institutions is high and Timely published reports of per share's earnings. According to the inverse relationship between Accuracy of prediction per share's Earnings by management with risk of company and capital cost, It is recommended to

**Table 7: Results of multivariate regression of third and fourth hypothesis**

Variable type	Symbol	Variable name	Factor	T	Significant level
Depended variables	Y	Risk of company	-	-	-
Fixed amount	$\alpha$	Alpha	0.765	2.944	0.002
Independent variables	X1	Timely publication Earnings of per share	0.357	3.731	0.000
	X2	Accuracy of prediction per share's Earnings	0.169	2.936	0.011
Control variables		The size of company	0.436	2.781	0.000
		Financial Leverage	-1.328	-3.034	0.001
		Sales growth	0.118	2.775	0.000
		Tangible asset	0.538	0.825	0.117
		WATSON-DORBIN	1.775	-	-
		f statistic	14.002	-	0.003
		Correlation coefficient	0.423	-	-
R		Coefficient of determination	0.179	-	-
Adjusted R square		Adjusted coefficient of determination	0.178	-	-

**Table 8: Results of multivariate regression of fifth and sixth hypothesis**

Variable type	Symbol	Variable name	Factor	T	Significant level
Depended variables	Y	Capital cost	-	-	-
Fixed amount	$\alpha$	Alpha	1.445	2.365	0.000
Independent variable	X1	Timely publication Earnings of per share	-2.229	-2.893	0.003
	X2	Accuracy of prediction per share's Earnings	-0.108	-3.624	0.000
Control variables		Size of company	-0.387	-2.735	0.025
		Financial Leverage	-0.214	-2.763	0.000
		Sales growth	-0.554	-2.013	0.013
		Tangible asset	0.692	0.991	0.091
		WATSON-DORBIN	1.894	-	-
		f statistic	6.987	-	0.001
		Correlation coefficient	0.702	-	-
R		Coefficient of determination	0.213	-	-
Adjusted R square		Adjusted coefficient of determination	0.212	-	-

Financial Chiefs, that In anticipation of earnings, All changes and volatility in politics, and economic must be checked which by this issue, Accuracy of profit forecast increased.

- Due to the direct connection relationship between Timely publication Earnings of per share by management with company's value, It is recommended to Financial Chiefs, that Financial reporting, timely, prepared, and be audited. and Full information be available for capital market participants.
- According to the inverse relationship between Accuracy of prediction per share's Earnings by management with company's value, It is recommended to Financial Chiefs, that By hiring financial expert advisors and by Increasing the accuracy of management decision making; increases Accuracy of forecast profit. Due to the direct connection relationship between value of company and the size of company, It is recommended to investors, invest On large companies, because Large companies have sufficient financial resources, and Decisions made by managers expert in financial matters. Therefore, Investing on large companies could lead to higher profitability, also in Larger companies due to the number of shareholders, profit-sharing issue, are particularly important.

- According to the inverse relationship between financial leverage and value of company, Managers tries to hold, the company's financial leverage, in reasonable and optimal level; because high Financial leverage show company's bankruptcy risk, and maybe, affect on company's profit distribution and also, It is recommended to investors, If the risk of bankruptcy is especially important for them, invest On companies with low financial leverage, High financial leverage associated with financial uncertainty And conservatives people should take note to this issue.

## REFERENCES

1. Aghayi, M., Mokhtarian, O. (2014). Evaluation the Factors that affects on decision making of investors in tehran stock exchange, Accounting and auditing, No. 36, p. 3 to 25.
2. Akbari, M. (2011). Variables affecting on credibility of management earnings forecast, PhD thesis, Allame Tabatabayi college of Accounting and Management.
3. Baginski, S., Rakow, K. (2009). Management earnings forecast disclosure policy and cost of equity capital. Working Paper (University of Georgia and Louisiana State University).
4. Bahramfar, N., Shams Alame, S. H. (2011). Effect of accounting variables on Future stock returns of companies listed in tehran stock exchange, Accounting and Auditing, No. 37, pp. 23 to 50.
5. Beaver, W., R. Lambert and D. Morse (2011); The information content of

- security prices, *Journal of Accounting and Economics*, 2: 3-28.
6. Bowen, R., D. Burgstahler and L. Daley (2013); The Incremental Information Content of Accrual versus Cash Flows. *The Accounting Review* (October): 723-747.
  7. Brown, L. (2010); Earnings Forecast Research: implication for Capital Markets Research, *International Journal of Forecasting* 9: 295-320.
  8. Cheng, A., S. Liu and T. Schaefer, (2014); Earnings Permanence and the Incremental Information Content of Cash Flows from Operations, *Journal of Accounting Research* 34: 173-181.
  9. Jandaghi Amirabadi, A. (2012) impact of profit forecasts Quality on future earnings, Master's Thesis of Accounting in azad university, Central Tehran Branch.
  10. Kordan, B. (2008). Investigating The Information Content of Accounting, listed in The financial statements for providing A model in order to predicting profit, PhD thesis, Tehran University.
  11. Kordestani, G., Majdi, Z. (2013). Investigating The Relationship between qualitative characteristics of profit and Cost of equity capital, *Review of Accounting and Auditing* No. 48, pp. 85 to 104.
  12. Mehrani, S., Hesarzadeh, R. (2011). Fluctuations in profit and its prediction, *Accounting knowledge*, no 6, pp. 27 to 42.
  13. Nasrabadi Rahmani, M. (2014). Factors affect on Accuracy of corporate profits prediction, Master's Thesis, Collage of Economics and Finance science, University of Mazandaran.
  14. Noravesh, I., Gholamzadeh, M. (2012). Investigating the behavior of accounting profit with Using time series - box, - jenkiz, *Review of Accounting and Auditing* No. 52, p. 3 to 25.
  15. Ohlson, J. (2012); Ungarbled Earnings and Dividends: An Analysis of the Beaver, Lambert and Morse Valuation Model. *Journal of Accounting and Economics*, 109-116.
  16. Penman, S. (1992). Financial Statement's Information and the Pricing of Earnings Changes, *The Accounting Review* 67: 563-577.
  17. Pfeiffer R., P. Elgers, M. Lo and L. Rees (2014); Additional evidence on the incremental information content of cash flows and accruals: the impact of errors in measuring market expectations, *The Accounting Review*, 73 (3): 373-385.
  18. Pownall, G., C. Wasley, and G. Waymire. (2012). The stock price effects of alternative types of management earnings forecasts. *The Accounting Review* 68:896-912.
  19. Rakow. K.C.(2010).The effect of management earnings forecast characteristics on cost of equity capital. *Advances in Accounting, incorporating Advances in*.
  20. Reza Zadeh, R., Grossi, H. (2011). Differential sustainability of commitment and cash components of profit and profitability prediction, *Review of Accounting and Auditing*, No. 63, p. 18 to 94.
  21. Rogers, J. and Stocken, P., (2005). "Credibility of Management Forecast," *the Accounting Review*, Vol. 80, No. 40, pp.1233-1260.
  22. Rogers, J. L., D. J. Skinner and A. V. Buskirk. (2009). Earnings guidance and market uncertainty. *Journal of Accounting and Economics*, Forthcoming.
  23. Saghafi, A., Gholami Poor, R. (2012). Information Content of earnings forecast and Factors affecting the forecast error, *stock exchange Quarterly* No. 18, pp 173 to 203.
  24. Subramanyam, K. (2010); The Pricing of Discretionary Accruals. *Journal of Accounting and Economic*, 22: 249-281.

**How to cite this article:** Aghmasjed JR, Amirhosseini Z. The Relationship Between Characteristics of Forecast Earnings of Per Share by Management with Cost of Capital, Market Value and Systemic Risk In Tehran Stock Exchange. *Int J Sci Stud* 2017;5(4):630-635.

**Source of Support:** Nil, **Conflict of Interest:** None declared.