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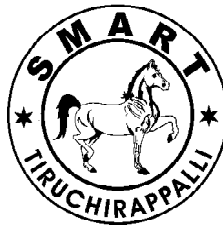
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THE IMPACT OF ACCOUNTING ESTIMATES ON PERFORMANCE - EMPHASIZING MANAGERS' MYOPIA

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Abstract

Accounting estimates, arising from the flexibility of accounting standards, will potentially increase the relevance of accounting information because they provide the ground for transferring information from insiders to the outsiders. On the other hand, in the case of managers' myopia, it is expected that management will reduce the amount of capital and long-term expenditures, that do not have a clear and current benefit and will strive to increase profitability of current financial period, if the firm's profitability had declined in the previous financial period. This study tried to investigate the relationship between accounting estimates, management myopia and firm's performance. The results showed that there was significant and direct relationship between accounting estimates and firm's performance and management myopia diluted the direct relationship between accounting estimates and firm's performance.

Keywords: *Accounting Estimates, Management Myopia, Firm's Performance*

JEL Code: *M4, M41*

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1. Introduction

Accounting estimates have a significant impact, on most actors, in the financial reporting scene (Lev, 1989), such as standard-setters, accountants, auditors, and investors. The usefulness of accounting estimates, as one of the most basic issues in accounting, faces challenges. On the one hand, accounting estimates generally increase the potential relevance of accounting information since they can potentially be beneficial to investors. This information is the main means of transferring future information to investors (Lev and Sougiannis, 2010). Accounting standards have considered extensive authority for managers, and subsequently, estimated items and earnings reflect managerial incentives. Three exclusive incentives have been tested in the literature (Holthausen, 1990). The first one was managers' opportunism, which means biased increase or decrease of earnings by managers because of the increased compensations (Bannister and Newman, 1996; Richardson, 2000; Lim et. al, 2008). The second was to draw up an efficient contract, by reducing agency costs between managers, creditors, and shareholders (Watts, 1977). The third one was signaling, which means transferring confidential information to reduce information asymmetry (Subramanyam, 1996; Louis and Robinson, 2005). All these motivations and incentives, especially the third case, indicate the influence of estimated items on firm's performance.

On the other hand, management efficiency requires the selection of optimal strategies, that lead to the highest expected value for the firm. Firms' managers always try to balance between long term investments and uncertain investments in research and development activities as well as between short term and long term profits. Performance influences managerial compensation and job safety from financial and capital markets'

perspectives (Cheng, 2004; Dechow and Skinner, 2000), which will be managerial myopia incentive (Chen et.al, 2015). Therefore, sometimes in choosing the firm's value-creating strategies, instead of focusing on long term goals and creating the highest expected value through selecting the best solution, managers, for different reasons (for example, in response to short term criteria of performance valuation), turn to solutions to improve their short term performance, and it becomes a complex and problematic issue when such a choice by managers would lead to the cost of reducing the firm's expected value in long term and would have an unpleasant effect on the firm's future performance (Levinthal and March, 1993). This increased managers' myopia affects firm's performance, and the impact of accounting estimates on performance is moderated by managers' myopia. Hence this study seeks to investigate the relationship between accounting estimates and financial performance, with emphasis on the moderator role of managers' myopia.

2. Review of Literature

A significant number of strategic, tactical and operational decisions should be made based on high quality information. Unbiased and reliable accounting information is a prerequisite for appropriate decision-making process. Since financial statements reflect the financial position and business performance of the firm, they are considered an inevitable source for the decision-making process (Sacer et. al, 2016). Some items of financial statements are not accurately measurable and can only be estimated. The nature and reliability of the information, available to the management, to carry out an accounting estimate is very diverse, and as a result, affects the amount of ambiguity in accounting estimates. Therefore, a significant relationship is expected between accounting estimates and

firm's financial performance. Meanwhile, management overconfidence is one of the most important characteristics of executive managers which influences investing, financing, and dividend policies. Previous researchers (**Malmendier and Tate, 2005, 2008, and 2015; Ben-David et.al, 2010**), on accounting and financial matters, have reported that executive managers' overconfidence and optimism explain firms' value-destroying mergers or combinations and why they enter into other investments, financing, and costly accounting policies. On the other hand, overconfidence can bring benefits under certain conditions. For example, the motivation of overconfident managers to carry out more risky activities is less costly than others (**Gervais et. al, 2011; Campbell et.al, 2011**). According to **Hilary et.al, (2016)**, people are generally overconfident and optimistic, and this overconfidence and optimism is more in the case of their own performance. Moreover, it is likely that after a series of events and good performance, managers will have optimism bias, which would lead them to underestimating random disorders, and subsequently, overestimating of success in their activities. Consequently, to reach their objectives, overconfident managers give priority to the closest and most achievable desired goals and experience a kind of myopia. According to **Chen et. al (2015)**, managerial myopia leads to under investment in intangible and long term projects such as research and development, advertising, and staff training in order to achieve short term profitability goals (**Bushee, 1998; Porter, 1992**). The results of **Dechow and Sloan (1991)** showed that to achieve their desired earnings, managers seek to reduce their research and development costs.

Wahal and McConnell (2000) found that there was direct relation between operational profitability charges and research and

development expenditures, which are indicative of myopia. Firms' managers always seek to strike a balance between long term and uncertain investment in projects and the benefits of specific and short term returns of capital expenditures. Long term projects can increase a firm's current costs and, at the same time, do not cause any clear benefits in the current period. Therefore, in the case of managers' myopia, it is expected that management will reduce the amount of capital and long term expenditures, that do not have a clear and current benefits and will strive to increase the profitability of current financial period. Thus, it can be argued that through weakening firm's operational efficiency, management myopia can modify the effects of accounting estimates on performance.

After examining the accounting conservatism effect on overconfident managers' myopia, **Hsu et. al (2017)** concluded that as accounting conservatism increased, the amount of overconfident managers' myopia decreased and it was more intense in uncertain environments and in firms facing less financing constraints. **Sacer et al (2016)** also examined the impact of accounting estimates on financial position and business performance. In this study, the reported amounts, for intangible assets, were used as an indicator for accounting estimates. The results showed a direct relationship between accounting estimates and business performance and firms' financial position. After examining the influence of institutional ownership on managerial myopia, **Chen et al, (2015)** reported that at the level of Taiwan's capital market companies, there was myopia in terms of research and development costs, and this was reinforced by increased presence of institutional owners.

Investigating the relationship between intangible assets and innovation in manufacturing and service companies, **Salavati et.al, (2014)** concluded that there was significant relationship

between human capital with information capital and organizational capital. Meanwhile, there was significant relationship between information capital and organizational capital and innovation. In a comparative study of the effect of management myopia and earnings management on stock returns, **Moradi and Bagheri (2014)** came to the conclusion that although having positive returns in short term, management myopia will negatively affect the firm's stock returns in the long term. Comparing the impact of managers' myopia and earnings management on stock returns, myopic management, compared to earnings management, caused more negative consequences for the firm. **Keshavarz (2013)** investigated the relationship between free cash flow and firm's performance, considering managers' myopia. The results showed that free cash flow exercised a significant negative relationship with stock returns in the short and in the long term. Also, managers' myopia negatively affected the relationship between free cash flows and short term and long term returns. Since returns were more sensitive to free cash flows in myopic firms, increased free cash flow will result in more decrease in returns. Therefore, managers' myopia and free cash flows will increase managers' opportunistic behaviors towards their personal interests, and these opportunistic behaviors negatively affected firm's performance.

3. Statement of the Problem

The amount of ambiguity, in the accounting estimate, affected important misstatement risks of accounting estimates and their vulnerability to intentional or unintentional management biases (**Accounting Standards Committee, 2017**). In other words, financial statements, including balance sheet items and income statements, were largely influenced by management estimates, which in turn will affect the firm's performance.

4. Need of the Study

Accounting estimates, arising from the flexibility of accounting standards, will potentially increase the relevance of accounting information because they provide the ground for transferring information, from insiders to the outsiders. Accounting estimates are the main means of transferring future information to investors, and they are the tools for transferring confidential information to reduce information asymmetry and signaling. Thus, accounting estimates can increase performance and efficiency (**Sacer et.al, 2016**). There was a direct relationship between accounting estimates and business performance and financial position of the firms.

5. Objective of the Study

The main objective of this study was to examine the existence of relationship between accounting estimates and firm's financial performance and to test whether management's myopia modified the relationship between accounting estimates and firm's financial performance.

6. Hypotheses of the Study

NH-1: There is no existence of relationship between accounting estimates and firm's financial performance.

NH-2: Relationship between accounting estimates and firm's financial performance was not modified by management's myopia.

7. Research Methodology

7.1 Sample Selection

The population of this study included listed firms, in Tehran Stock Exchange, over the period 2011 to 2015. The sample was also selected, through systematic elimination method, from the population.

7.2 Sources of Data

Data were extracted from 162 listed firms in Tehran Stock Exchange.

7.3 Period of the study

The period of the study was from 2011 to 2015.

7.4 Tools used in the Study

Descriptive Statistics, Im, Shin, and Pesaran statistics, Chow and Hausman Test and Regression were used in this study.

8. Analysis of Data

The reliability of the variables was examined before data analysis. Reliability means that the mean and variances of the variables and their covariance should be constant over the years and over different years. As a result, using these variables, in the model, did not create false regressions. Thus, Im, Shin, and Pesaran Test was used in this study. The attributes of variables' quality is presented in **Table-1**. According to **Table-1**, the mean and median of the firm's performance variables were 0.109 and 0.089 respectively. Other features of the variables are also presented in the Table. It should be noted that the mean and median of quantitative variables were close to each other, and the outlier data, which exercised a negative effect on the quality of analyses, were eliminated. Also, the value of significance level of Im, Shin, and Pesaran Test, for all variables, was less than 0.05, and therefore, all variables were persistent over the period of study.

The results of estimating the coefficients of managers' myopia model are presented in **Table-2**, under Inferential Statistics. It is worth mentioning that based on the results of Chow and Hausman Test, fixed effects model was used. Given the results of the Table and according to the described approach, the amount of managers' myopia was calculated. Dourbin-Watson Statistics was 2.118, which was between

1.5 and 2.5. Meanwhile, F Limer significance level was 9.701, which was less than 0.05 and hence the model was significant. **Table-2** represents adjusted R-squared. The value of adjusted R-squared of the model was nearly 34%, indicating that about 34% of changes in the dependent variable could be explained by the independent variable. It should be noted that using estimated generalized least square method as well as White Diagonal Correction led to the elimination of probable variance heterogeneity effects.

The results of testing the first hypothesis are presented in **Table-3**. It is evident that based on the results of Chow and Hausman Tests, fixed effects model was used. Given the results of the Table, since t statistics of accounting estimates variable was greater than +1.965 and its significance level was less than 0.05, there was significant and direct relationship between accounting estimates and performance of listed firms in Tehran Stock Exchange. It should be noted that Dourbin-Watson Statistics was 1.945, which was between 1.5 and 2.5. Meanwhile, the significance level of F Limer was 0.000, which was less than 0.05, indicating the significance of the model. Hence the **NH-1** (There is no existence of relationship between accounting estimates and firm's financial performance), was rejected. The value of adjusted R-squared of the model was approximately 53%, indicating that about 53% of changes in the dependent variable can be explained by independent and control variables. It should be noted that using estimated generalized least squares method as well as White Diagonal correction, led to the elimination of probable variance heterogeneity effects.

The results of testing the second hypothesis, are presented in **Table-4**. It is clear that based on the results of Chow and Hausman Tests, fixed effects model was used. Given the results of the Table, since t statistics of accounting estimates variable was greater than +1.965 and

its significance level was less than 0.05, there was significant and direct relationship between accounting estimates and performance of listed firms in Tehran Stock Exchange. Moreover, since t statistics of management's myopia variable was greater than -1.965 and its significance level was less than 0.05, there was significant and inverse relationship between management's myopia and performance of listed firms in Tehran Stock Exchange.

Dourbin-Watson statistics was 1.945, which was between 1.5 and 2.5. Meanwhile, the significance level of F Limer was 16.351, which was less than 0.05, indicating the significance of the model. Hence **NH-2** (Relationship between accounting estimates and firm's financial performance was not modified by management's myopia), was rejected. The value of adjusted R-squared of the model was approximately 56%, indicating that about 56% of changes in the dependent variable can be explained by independent and control variables.

9. Findings of the Study

It was found that accounting estimates variable and management's myopia recorded an inverse and significant relationship. Therefore, management's myopia mitigated the direct relationship between accounting estimates and firm's performance. It should be noted that using estimated generalized least squares method as well as White Diagonal correction, led to the elimination of probable variance heterogeneity effects. This result could be regarded as being consistent with **Wahal and McConnell (2000)** and **Chen et al., (2015)** results.

10. Suggestions

It is suggested that managers of listed firms in Tehran Stock Exchange, need to plan to use accounting estimates objectively while avoiding myopia. In addition, to evaluate firm's performance, it is suggested, to investors in these firms, to use

and evaluate the firm's state from the perspective of using estimated items, along with the amount of management's myopia, so that they can use these criteria, along with other investment criteria, to make the best investment decisions.

11. Conclusion

Using the data from 162 firms listed in Tehran Stock Exchange, during the period 2011 to 2015 and multivariate regression, this study attempted to investigate the relationship between accounting estimates, management's myopia, and firm's performance. The results showed that there was significant and direct relationship between accounting estimates and firm's performance, and the management's myopia weakened the direct relationship between accounting estimates and firm's performance. Regarding the second hypothesis, it is necessary to explain that managers, after a series of events and good performance, experience an optimistic bias that leads them to underestimating the role of random errors and consequently, overestimating of success in their activities. Therefore, to reach their objectives, overconfident managers should give priority to the closest and most achievable desired goals and experience a kind of myopia. According to **Wahal and McConnell (2000)**, in the case of managers' myopia, it is expected that management will reduce the amount of capital and long-term expenditures that do not have a clear and current benefits and will strive to increase the profitability of current financial period. Thus, it can be argued that through weakening firm's operational efficiency, management myopia can mitigate the effects of accounting estimates on performance.

12. Limitations of the Study

This study considered only the managers' myopia of accounting estimates, for only 162 firms, listed in Tehran Stock Exchange, for a period of four years.

13. Scope for Further Research

It is recommended to interested researchers, to test the models of this study, through using other indicators of accounting estimates such as human capital figures as well as other indicators of firm's performance such as Q Tobin and economic added value and compare and summarize the results in future studies. In addition, it is said that the effects of other behavioral indicators such as managers' overconfidence on the relationship between accounting estimates and firm's performance, should be examined and the results be compared and summarized.

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Table-1: Attributes of Qualitative Variables

Im, Shin, and Pesaran statistics		Std. deviation	Min.	Max.	Median	Mean	Variables
Significance	t statistics						
0.000	-8.224	0.121	-0.285	0.553	0.089	0.109	Performance
0.000	-12.057	0.008	0.000	0.055	0.002	0.005	Accounting estimates
0.000	-11.532	3.766	-19.703	15.162	0.04	-0.225	Management's myopia
0.000	-9.387	0.577	0.026	5.559	0.5	0.654	Growth opportunities
0.000	-17.129	0.109	-0.385	0.484	0.063	0.077	Free cash flow
0.000	-11.028	1.495	10.352	19.106	13.773	13.981	Firm size
0.000	-10.188	0.199	0.089	0.986	0.588	0.576	Financial leverage
0.000	-9.328	0.264	-0.428	1.168	0.145	0.204	Firm's growth
0.000	-8.657	0.363	2.564	4.143	3.663	3.554	Firm age
0.000	-12.119	0.176	0.134	0.989	0.769	0.729	Major ownership
0.000	-11.298	0.247	0.000	1.000	0.6	0.64	Board's independence

Source: Data were extracted from <http://new.tse.ir/en/> and computed using SPSS

Table-2: Estimating the Coefficients of Managers' Myopia Model

Significance	t statistics	Standard error	Coefficient	Variable
0.000	5.546	0.0007	0.004	Fixed coefficient
0.000	4.926	0.002	0.011	Accounting estimates
Adjusted R-squared= 0.346				F Limer = 9.701
Dourbin-Watson statistics= 2.118				Significance level= 0.000
Hausman test statistics= 99.844				Chow test statistic= 9.512
Significance level of Hausman test= 0.000				Chow test significance level= 0.000
Fixed effects model, EGSL method, and White Diagonal correction				

Source: Data were extracted from <http://new.tse.ir/en/> and computed using SPSS

Table-3: Testing the First Hypothesis

Significance	t statistics	Standard error	Coefficient	Variable
0.001	3.224	0.038	0.124	Fixed coefficient
0.000	8.875	0.049	0.44	Accounting estimates
0.000	-5.845	0.001	-0.011	Management's myopia
0.000	11.32	0.025	0.284	Growth opportunities
0.000	-8.088	0.005	-0.045	Free cash flow
0.000	4.745	0.001	0.008	Firm's size
0.000	-5.326	0.054	-0.287	<i>Financial leverage</i>
0.000	8.551	0.012	0.109	<i>Firm growth</i>
0.065	-1.848	0.006	-0.012	<i>Firm age</i>
0.000	5.329	0.013	0.07	<i>Major ownership</i>
0.098	1.656	0.009	0.015	<i>Board independence</i>
Adjusted r-squared= 0.531				F Limer = 16.351
Dourbin-Watson statistics= 1.945				Significance level = 0.000
Hausman test statistics= 112.34				Chow test statistic = 8.125
Significance level of Hausman test= 0.000				Chow test significance level = 0.000
Fixed effects model, EGSL method, and White Diagonal correction				

Source: Data were extracted from <http://new.tse.ir/en/> and computed using SPSS

Table-4: Testing the Second Hypothesis

Significance	t statistics	Standard error	Coefficient	Variable
0.003	2.925	0.038	0.113	Fixed coefficient
0.000	5.971	0.051	0.304	Accounting estimates
0.002	-3.000	0.005	-0.017	Management's myopia
0.036	-2.098	0.033	-0.071	Accounting estimates*management's myopia
0.000	12.325	0.024	0.296	Growth opportunities
0.000	-8.325	0.005	-0.046	Free cash flow
0.000	5.639	0.001	0.01	Firm size
0.000	-11.661	0.018	-0.211	Financial leverage
0.000	8.499	0.012	0.107	Firm growth
0.048	-1.976	0.006	-0.013	Firm age
0.000	4.944	0.013	0.065	Major ownership
0.213	1.244	0.009	0.011	Board independence
Adjusted r-squared= 0.531				F Limer= 16.351
Dourbin-Watson statistics= 1.945				Significance level= 0.000
Hausman test statistics= 112.34				Chow test statistic=8.864
Significance level of Hausman test= 0.000				Chow test significance level= 0.000
Fixed effects model, EGSL method, and White Diagonal correction				

Source: Data were extracted from <http://new.tse.ir/en/> and computed using SPSS