

The Investigation of the Effect of Commitment Earnings Management on the Future Performance of Accepted Companies in the Tehran Stock Exchange

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Abstract: This research is the investigation of commitment earnings management in the accepted companies in the Tehran Stock Exchange. This research is applied and the method is descriptive correlation and is also considered as survey researches. The statistical society of research are composed all of the accepted companies in the Tehran Stock Exchange. In this research is used classified and audited financial data of accepted active companies in the Tehran Stock Exchange. The time limits of the research is 7 sequential from 2006-2012. By using the systematic deletion sampling 94 companies were chosen as statistical sample. In this research unusual optional fees is as reagent variable of commitment earnings management. By using the Tehran Stock Exchange databases were collected the website of this organization and software stocks such as Rahavard Novin Software and required data. The data are classified in the Excel Software as the panel and for analysis is used Eviews Software and multiple regression model by Ordinary Least Squares Method (OLS). To investigate the significant regression equation is used F test and for the significant regression coefficients is used t-test. The research results showed that there is not a relation between the future performance and commitment earnings management and unusual optional fees.

Key words: Commitment earnings management, the increasing of capital, the future performance of company. Tehran Stock Exchange, sequential

INTRODUCTION

Generally earnings management is done with the two methods of real earnings management and accounting earnings management. The flexible accounting methods and too much attention of investors and creditors to the net income give this motivation and opportunity to the manager in order to better portray the company and or the implementation of conservatism and less show of a profit, in the application of accounting standards act as an aggressive (Dechow and Dichev, 2002). One method of manipulating profit of company is the use of commitment items. In fact the managers in the commitment accounting system are faced with different options in the case of the recognition of revenues and expenses (Teoh *et al.*, 1998). The process of measuring profit and its result has an important role in the operation of company and usually the users of financial statements are believed more importance for it. Since, the calculation of the economical institution is affected by method and estimates of accounting and the preparation financial statements is

responsible for business unit management may be for various reasons the manager act to manage interest. The researchers are documented two forms of earnings management, the first form accounting earnings management which refers to use of opportunistic managers of the available flexibility in the accepted accounting standards in order to changes in reported earnings, without the change will happen in the underlying cash flows of the company (Chen, 2009). The second form of earnings management is the real earning management which are included production decisions and the real investment (Saedi *et al.*, 2013).

This research will pay to investigate commitment earnings management in the companies which have increasing investment. With accepted accounting standards due to lack comprehensive theory of interest there is a difference of opinion between theorists and experts in reporting profit and created challenges. In addition with considering the separation of ownership from management, existence conflict of interest and management privileged access to some financial data and

features of commitment accounting in management selection in different method of accounting, there is a possibility of earnings manipulation and misleading the people. At the same time reported interest always as one of financial decision making factors is considered and financial analysts generally consider interest as prominent factor in their investigation and judgment.

Therefore, the main purpose of this research is to investigate the commitment earnings management and its effect on the future performance of the companies which have increasing investment by using available information in the Tehran Stock Exchange.

Empirical background of research: Khajavi and Nazemi (2005) in their research in an effort to examine the relationship between commitment items and the quality of profit showed that the average returns of companies which their commitment statistics are reported to the lowest and highest level there is not a significant difference. Norvash *et al.* (2006) in the following of this research and in order to evaluate the error in the estimating of commitment items as a tool to assess the quality of profit by using the selected features of each company (like size, sales level, operating cycle and swing in the components of commitment items) showed that changes in investment in the cash out flow can be used as a tool to assess the quality of profit.

Sweeney (1994) is examined the earnings management from the perspective of contract. He in his research is tested the debt hypothesis directly during 1977-1990 years. The results showed when the companies are violated the debt contracts, their managers are changed their accounting methods to ways to increase revenue. The managers of different companies towards the use of new accounting standards which are increasing income have positive and rush reaction and towards the new accounting standards which are lowering income have negative and delay reaction. The use of a change in accounting procedures which are increasing income among the different companies depends on the flexible accounting of company and the level of costs of abuse of debt contracts.

Darogh, Porjalali and Sodagaran are examined the impact of various factors on the management of optional commitment items in the Japanese companies during 1989-1992 years. The results showed the companies which have higher debt ratio are used the increasing profit commitment items (not meaningful). Due to differences in the economic sphere of Japan with the other western countries, in this country the companies have not a plenty of motivation to make up for the profit and loss. The companies which have the number of employees and more

assets to be able to act more successful in negotiations with the trade unions are trying to show a lower profit. And but political pressure from the state is not on them like antitrust laws because Japanese government policy is company support towards the international market. In the event that in America supporting competitive market in the country is the aim of the government. The assumption of managers' reward also as a result of managers' self-interested goals to get more reward.

Kohen and Zarowin in the research of behavior of earnings management are tested the profit around seasoned equity offerings with focusing on both manipulation of commitment items and the manipulation of real activities during 1987-2006. Their evidence confirms that with reduction in the performance of post-SEO, not only by reversal of commitment items is stimulated but also is reflected the actual results of operating decisions which is taken to manage profit at the time of SEO. Overall their findings shows the credit management activities of real profit around a Specific Event of Organization (SEO).

Literature review

Dependent variable: Performance is the difference of return on asset in the desired year with base year which the purpose of base year is same year of increase investment.

Independent variable: Commitment earnings management or same optional commitment items of Jones' adjusted model is calculated as follows:

$$\begin{aligned} \frac{TA}{ASSETS_{t-1}} &= K_1 \left(\frac{TA}{ASSETS_{t-1}} \right) + \\ &K_2 \left(\frac{\Delta SALES_{it}}{ASSETS_{it}} \right) + K_3 \left(\frac{PPE_{it}}{ASSETS_{t-1}} \right) + \epsilon_{it} \\ NA_{it} &= K_1 \left(\frac{1}{ASSETS_{t-1}} \right) + K_2 \left(\frac{\Delta SALES_{it}}{ASSETS_{it}} \right) + \\ &K_3 \left(\frac{PPE_{it}}{ASSETS_{t-1}} \right) DA_{it} = \frac{TA}{ASSETS_{t-1}} - NA_{it} \end{aligned}$$

Where:

- TA = Total commitment items:
- ASSETS = Total assets in the previous year
- SALES = Changes in sales of this year
- PPE = Estates, machinery and equipment in the this year
- DA = Involuntary commitment items in this year
- NA = Optional commitment items in this year
- K1, K2 = Variables coefficient

Dependent variable: Optional fees is included total general expenses of administrative and sales:

$$\frac{DISEXP_{it}}{ASSETS_{it-1}} = K_1 \left(\frac{1}{ASSETS_{it-1}} \right) + K_2 \left(\frac{SALES_{it}}{ASSETS_{it-1}} \right) + \varepsilon_{it}$$

Where:

- DISEXP = Optional fees in this year
- ASSETS = Total assets in previous year
- SALES = Total sales in this year
- K1, K2 = Variables coefficient

Control variable: The control variable of this research which is necessary to enter in each regression equation is considered variable sales growth which is equal to the sales of desired year minus the sales of base year divided by base sale.

Research hypotheses:

- Between the future operating performance and commitment earnings management there is a significant relationship
- Between the future operating performance and unusual optional fees there is a significant relationship

MATERIALS AND METHODS

This research is as kind of practical and the method is descriptive-correlation and is also considered as survey researches. The statistical society of research forms all of the accepted companies in the Tehran Stock Exchange. In this research is used classified and audited financial data in the Tehran Stock Exchange. The limited time of research is included 7 consecutive years from 2006-2012. According to the research variables can be defined the following criteria to implement in the systematic omitted sampling (Table 1).

- Their end of financial year is to the end of March
- The company shouldn't have changed its financial year during the periods in question
- The company isn't of the financial intermediation, insurance companies, bank and so on
- The desired company have continuous activity during the study period and its share is placed on deal
- The needed information for doing this research in the period of 2006-2012 has provided fully
- Finally due to the above conditions 94 companies were chosen as statistical sample

Table 1: The number of statistical sample based on omitted sampling method

No. of statistical method	No. of companies
The companies in stock in the period of 2006-2012	360
The companies which are increasing their investment at the beginning of 2006	290
The companies which the end of their financial year is 29 of March	262
The companies which during the period under review haven't changing of financial year	220
Isn't of intermediate companies and so on	190
Haven't trading interval	103
The sample companies which at the end their information are available	94

By using the Tehran Stock Exchange databases were collected the website of this organization and the software stocks such as RahavardNovin Software, needed data. The data is classified in Excel Software as panel and for analyzing is used Eviews software of multiple regression model of ordinary least squares model.

RESULTS AND DISCUSSION

As can be seen in Table 2, the estimated possibility for all levels is >0.05, therefore H₀ hypothesis based on the normality of the remaining model is accepted.

First hypothesis; “between the future performance and commitment earnings management there is relation: To test the first hypothesis is used the following regression model:

$$per_{it+1} = \beta_0 + \beta_1 \Delta SALE_{it} + \beta_2 DA_{it} + \varepsilon_{it}$$

- H₀: Between the future performance and commitment earnings management there isn't relation
- H₁: Between the future performance and commitment earnings management there is relation

$$\begin{cases} H_0 : \beta_1 = 0 \\ H_1 : \beta_1 \neq 0 \end{cases}$$

At first to determine the presence or absence separate intercept for each of the companies, first should be examined F Limer test and are choosing between the accumulated data and non-cumulative data (fixed effects or random effects). Which in it H₀ hypothesis is the equality of intercepts (combined method) against H₁ hypothesis dissimilarity of intercepts (panel method):

$$\begin{cases} H_0 : \alpha_0 = \alpha_1 = \dots = \alpha_n = \alpha \\ H_1 : \alpha_i \neq \alpha_j \end{cases}$$

$$F(n-1, nt-n-k) = \frac{\frac{RSS_R - RSS_{UR}}{n-1}}{\frac{RSS_{UR}}{nt-n-k}}$$

Table 2: The normality of the remaining model test

Row	Model	Jerak Bera statistics	Possibility
1	First	0.66	0.71
4	Second	0.82	0.66

Table 3: The output of LM test of first model

Effects Test	Statistic	df	Prob.
Cross-section F	46.82	93.56	0.000

Table 4: The output of Hasmen test of first model by using the comprehensive cash flow

Test Summary	Chi-sq. statistic	df	Prob.
Cross-section random	3.48	3	0.32

If calculated F is larger than table F with degrees of freedom (n-1) and (nt-n-k), then H_0 hypothesis is rejected and therefore bound regression hasn't credibility should be considered the various intercepts in the estimates. In this study for doing this test has been used likelihood ratio test. In Eviews software after doing the Redundant Fixed Effects-Likelihood Ratio, if the output prob of software is smaller than 0.05, the panel method is accepted at 95% level and above but if larger than 0.05 in this case the combined method is accepted

As can be seen in Table 3, panel data method is accepted. Now this question is proposed that the difference in intercept of sectional units is of the random effects? To select the fixed effects model of $E(U_{it}/X_{it}) = 0$ against the random effects model formol $E(U_{it}/X_{it}) \neq 0$ is used Hasmen test. The statistics of χ -test with degrees of freedom is equal to the number of independent variables:

$$\begin{cases} H_0 : \text{RandomEffect} \\ H_1 : \text{FixedEffect} \end{cases}$$

If in Eviews6 do Hasmen test and the obtained prob is smaller than 0.05, the fixed effects model is accepted in the 95% level and above but if larger than 0.05 in this case the random effects model is accepted.

According to the result of Hasmen test in Table 4, the random effects model is accepted. The results of these tests are provided in Table 5 and 6.

As can be seen in Table 6, the obtained coefficient and statistics for the fixed number respectively are 2.16 and 2.83 which isn't significant at 95% of level of confidence. The obtained coefficient and statistics for changes sales variable are respectively 0.93 and 2.02. The results show that in 95% level of confidence between the changes in sales and the future performance of company there is positive and significant relation. The obtained coefficient and statistics for commitment earnings management variable are respectively -0.01 and -1.83 and the results show that between the commitment earnings management and the future performance of company there

isn't relation. The amount of F statistics of regression model is equal to 21.36 and according to the possibility statistics level, F is smaller than 0.05. The total estimated model is confirmed in 95% level. The obtained adjusted determination coefficient shows that 87% of changes of future performance of company are explained by the explanatory variables. The amount of statistics of Watson camera is 2.014 which is indicated the lack of desired data correlation problem. As a result by ensuring that the reviewed data have no problem regression can be emphasized on results of desired estimate and with the help of desired results is acted to forecast.

Second hypothesis: "between the future performance and unusual optional fees there is relation: To test the second hypothesis is used the following regression model:

$$per_{it+1} = \beta_0 + \beta_1 Adis\ exp_{it} + \beta_2 \Delta SALE_{it} + \epsilon_{it}$$

- H_0 : between the future performance and unusual optional fees there isn't relation
- H_1 : between the future performance and unusual optional fees there is relation

$$\begin{cases} H_0 : \beta_1 = 0 \\ H_1 : \beta_1 \neq 0 \end{cases}$$

The results of F Limer and Hasman tests are explaines (Table 7 and 8). The results of fitting of model in order to test the second hypothesis are also discussed.

As can be seen of Table 9, the obtained coefficient and statistics for the fixed number respectively are 0.37 and 2.67 which in 95% confidence level is significant. The obtained coefficient and statistics for changes sale variable, respectively are 0.22 and 1.58. The results show that in 95% confidence level between the change in sale and the future performance of company there isn't relation. The obtained coefficient and statistics for unusual optional fees are respectively -1.001 and -1.89. The results show that between the unusual optional fees and the future performance of company there isn't relation. The amount of F statistics of regression model is equal to 51.42 and according to the possibility level of statistics, F is larger than 0.05. Total estimated model in 95% level isn't significant. The obtained adjusted determination coefficient shows that 17% of changes of the future performance of company are explained by the explanatory variables. The amount of statistics of Watson camera is 1.95 which is indicated the lack of desired data correlation problem. As a result by ensuring that the

Table 5: The selection of suitable model test for panel

Selection of model	Hypotheses	p-values	Test method
Model is better with fix or random effect	H ₀ : the compound model is better H ₁ : model with random or fix effects is better	0.000	LM test
Model is better with random effect	H ₀ : model is better with random effects H ₁ : model is better with fixed effects.	0.322	Hausman test

Table 6: The results of first hypothesis test

$$per_{it+1} = \beta_0 + \beta_1 \Delta sale_{it} + \beta_2 DA_{it} + \epsilon_{it}$$

Variables	Coefficient of variables		The significant		Results
	t-statistics	t-statistics	level	level	
Intercept of	2.16	2.83	0.06	0.06	Meaningless
Changes Δ sale	0.93	2.02	0.04	0.04	Meaningful
Commitment earnings management DA	-0.01	-1.83	0.08	0.08	Meaningless

21.36 f- statistic; Prob(f-statistic): 0.91 the determination coefficient; 2.01 the statistics of Watson camera; 0.87 the adjusted determination coefficient; 0.0000F Limer test; 0.32 Hasman test

Table 7: The output of LM of second model

Effects Test	Statistic	df	Prob.
Cross-section F	46.82	94.56	0.04

Table 8: the output of Hsman of second model

Test summary	Chi-sq. statistic	df	Prob.
Cross-section random	2.80	3	0.11

Table 9: The results of second hypothesis test

$$per_{it+1} = \beta_0 + \beta_1 \Delta sale_{it} + \beta_2 DA_{it} + \epsilon_{it}$$

Variables	Coefficient of variables		The significant		Results
	t-statistics	t-statistics	level	level	
Intercept	0.37	2.67	0.007	0.007	Meaningful
Changes sale	0.22	1.58	0.11	0.11	Meaningless
Unusual optional fees	1.001-	1.89-	0.56	0.56	meaningless

f- statistic:51.42; Prob (f-statistic) 0.13; Determination coefficient: 0.24 1.95 the statistics of Watson the adjusted determination camera; 0.04 F Limer statistics coefficient: 0.17 Hasmen test: 0.11

reviewed data have no problem regression can be emphasized on results of desired estimate and with the help of desired results is acted to forecast.

CONCLUSION

In this research is investigated the effect of the commitment earnings management on the future performance of companies. For doing this work is collected the data related to 94 companies in the period of 2006-2012 and by using the multiple regression model the hypotheses are tested.

In this method by using the panel data has been paid to investigate the effect of the commitment earnings management in companies which in 2006 are acted to increase investment. The research results reflects the fact that there isn't relation between the future operation performance and commitment earnings management. And

in the hypothesis investigation between the future operation performance and unusual optional fees there isn't significant relation.

RECOMMENDATIONS

- To investigate the real and commitment earnings management according to their financing method
- To investigate which how the managers are choosing between the manipulation of real activities and the manipulation of commitment items based on the relative fees, when they have flexibility for the use of both of these
- Research on this topic that is the companies which use the manipulation of real activities, habitually use these such methods and is companies which use real earnings management like accelerate the timing of asset sales by reducing the price in a bad financial year, for doing it in the next year is also have motivation
- The design of a model for cash flow of operations and one model for optional commitment items for a more detailed analysis of earnings management
- The selection of the other dependent variable instead of optional commitment items as a representative of accounting earnings management like changes in the methods and estimates, the schedule of the sale of fixed assets, sale investments and increasing and reducing the cost of research and development can cause the increasing of richness of literature of earnings management
- To investigate the relations between the variables like size, industry type, property type, profitability, growth and so on with selection and preference of managers in the field of using the manipulation of commitment items

LIMITATIONS

Lack of research and development costs inside the country which this matter causes that the research and development costs is out the inclusion of optional fees and is considered the general administrative costs and sales of optional fees. To consider return on assets criteria as the index of future performance of company which this index may be is calculated by using the other criteria.

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