

THE INVESTIGATION OF LIMITING FACTORS OF EARNINGS MANAGEMENT FOR COMPANIES' LISTED TEHRAN STOCK EXCHANGE

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ABSTRACT

The current study was to examine the limiting factors of earnings management for companies' listed Tehran stock exchange. The study was a kind of applied, descriptive-correlative research. All listed companies in Tehran stock exchange were selected as statistical population during 2009 to 2013. So, data was gathered by library method and collected by systematic eliminated sampling method. The results show that there is a significant inverse relationship between board size and earnings management in companies' listed Tehran stock exchange. The result doesn't show any significant relationship between dividend and earnings management in companies' listed Tehran stock exchange.

Keywords: real earnings management; accrual earnings management; discretionary accruals; non-discretionary accruals; intensive factors

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1. INTRODUCTION

There are two main motives for earnings manipulation (earnings management). One of them is investment encouraging for buying firms' stock and the other one is increasing in firms' market value (Klag, 1991). One of the ways for earning manipulation is using accruals.



Because, accrual accounting system offers right to managers in order to choose earnings determinant in different times. In accrual accounting system, managers face different options about the time of revenue and expenses recognition. For example credit sale is early recognition of revenue (Teoh et al, 1998). This kind of manager performance is called earnings management. Manager earnings manipulation decreases earning quality. Managers adjust reported earnings by choosing specific accounting policies, accounting estimates and accrual management.

Hant, Moier and Shelvin (1997) suggest that lower reported earnings increase capital market value. Obviously, integration in financial statement is affected by manager personal opinion for decreasing earnings number. Earnings management has negative impact at the time of detection. By earnings management accounting, manager can change others' imagination about firm performance. When some errors are detected the firm cannot be reliable, so the debt and capital price will be decreased (Sahar Sepasi, 2005).

2. Theoretical framework

Manager intervention in accounting information has been named variously. The common term of this issue in accounting and financial literature is earnings management. Shiper (1989) describes earnings management as manager intervention in external financial reporting process in order to reach personal earnings. Earnings management phenomenon is rooted in manager opportunistic behavior. In fact, earnings management is a kind of managerial performance that retrieved from accounting and agency theories, so leads to information asymmetry between managers and other users (investors). In the other hand, earnings management can be investigated in efficient market theories. Hence, managers are motivated to earnings manipulation (Wats & Zimmerman, 1986).

Nowadays, earnings management determinants and information discloser in capital market has been interesting (Fernandez & Garcia, 2007). In fact, the reason for earnings management is so important for policymakers, analysts, specialists and finance executives (Banish, 1999; Kuthary et al, 2005).

Kapland described the ability of decreasing or increasing in reported earnings by managers as account manipulation. Account manipulation has wider concept. For example, the way of items categories in income statement is so considered in accounting literature. The importance of account manipulation is more than Kapland description. Manipulation incentive needs more attention. Managers sometimes use accounts as an instrument for showing unreal firms target or artificial risk reduction.

Estimates of the power and actions of managers are the one of the fundamental factors for earnings management test. The investigation of literature based on earnings management show the existence of different approaches in estimation of managers' power to earnings determination. One of the most important approaches is based on discretionary accruals. Healy, DeAnjelo and Jones examined earnings management and the use of accruals for earnings management detection. So they suggest some models for future research. Dechow et al show that Jones adjusted model detect earnings management in a better way.

Jones recognizes the difference between earnings and operating cash flow as accruals. This approach shows that the operating cash flow information is more objective criteria for firm real economic performance measures and hasn't been manipulated. Jones (1991) assumed that non-discretionary accruals are fixed during the time period. The model tries to separate discretionary accruals and non-discretionary accruals and control the effect of entity economical situation on non-discretionary accruals.

The current study is to examine the limiting factors of earnings management for companies' listed Tehran stock exchange. Among different type of management, income, smoothing and income payments management is more important. The main issue is that managers use flexibility made from accounting standards in order to manipulate earnings. When firms have high performance income and produce more, the personal commitment will be increased (decreased). There are deferent kinds of intensives for these actions consist of tend to understand the impact of risk factors for sale, maintain dividend policy and Achievement of employee objectives in the context of the theory of agency and compensation (Greenawalt and Stinkey, 1988; Healy and Wahlen, 1999).

2.1 Limiting factors of earnings management

Control mechanisms might limit earnings management. Beasley (1996) and Bradbery (2006) showed that there is an inverse relationship between board size and discretionary accruals. Earnings management is so important because of its protective features for investment. Laporta et al (2000) in their study indicate that there is a positive relationship between shareholder protection and dividend.

Zarvin & Cohn (2010) investigated SEOs earnings management behavior focused on accrual and real action manipulation during 1987-2006. They used cross-level Jones model (1991) in order to measure earnings management based accruals (Defond and Jiambalvo, 1994; Soubaramaniam,

1996). And they used operating cash flows, discretionary spending and the cost of product in order to measure real earnings management (Roychowdhury, 2006). They suggest three chapters in literature by the combination of SEO earnings management and real earnings management.

First, they predicated firms that use real earnings management as well as accrual earnings management. Second, they showed the variation of firms intensive to compare real earnings management with SEO accrual earnings management. They found that firm election is changed as a function of firm capability to use of accrual management and its costs predictably. That was the first model about that how firms can make balance between real earnings management and accruals earnings management.

The third and most important one is that they investigated the effects of earnings management strategies on post-SEO performance efficiency. They found that the reduction of Post- SEO performance efficiency for real activities is more intense than accruals management. That shows reduction of Post- SEO performance efficiency is motivated by reverse accruals (Rengan, 1998; Theo et al 1998). And also reflect real outcomes of operating decisions about SEO earnings management. All-told, their finding shows the reliability of SEO earnings management. In the following in order to better understanding of the relationship between real earnings management and accrual earnings management, this issue will be discussed extensively.

3. Research Hypotheses

Hypothesis 1: There is a significant relationship between board size and earnings management for companies' listed Tehran stock exchange.

Hypothesis 2: There is a significant relationship between dividend and earnings management for companies' listed Tehran stock exchange.

4. Research variable

4.1 Dependent variable:

Earnings management: in the current study Jones adjusted model by Dechow et al (1998) is used in order to measure earnings management.

$$\frac{TA_{it}}{A_{it-1}} = \alpha_1 \left[\frac{1}{A_{it-1}} \right] + \alpha_2 \left[\frac{(\Delta REV_{it} - \Delta AR_{it})}{A_{it-1}} \right] + \alpha_3 \left[\frac{PPE_{it}}{A_{it-1}} \right] + \varepsilon_{it}$$

TA_{it} : Firm total accrual

A_{it-1} Firm total assets

$\Delta REV_{it} - \Delta AR_{it}$ Changing in cash revenue

PPE_{it} Property

4.2 Independent variable

Board size: the log of the number of board member is used in order to measure this variable.

Dividend policy

4.3 Control variables:

Book to market ratio is considered as control variable.

5. Research domain

Subject domain: The investigation of limiting factors of earnings management for companies' listed Tehran stock exchange.

Locative domain: companies' listed Tehran stock exchange.

Time domain: the years during 2009-2013

6. Statistical population and sample:

Statistical population and data has been selected considering following restrictions and systematic elimination method:

- 1) Be acceptable in stock market since 2009
- 2) The end of financial year is 19th March.
- 3) The companies being in manufacture industry and In order to ensure comparability of their activity do not invest and finance in companies such insurance and banks.
- 4) The financial year has not been changed during financial period.
- 5) The firms which have available information necessarily during the study period.
- 6) Be acceptable in stock market until 2013

7. RESEARCH METHOD

The current paper is a kind of descriptive – correlative study. That is a descriptive study because it describes and recognizes conditions or phenomenon. And the study is correlative because it investigates the correlation between variables and seeks to prove the relationships based historical data. So, the current study can be categorized as a post event study cause of investigating cause and effect. In this paper there is a significant relationship between variables and the variables are not manipulated.

8. Model:

$$Dis_Accurals_{it} = \alpha_0 + \beta_1 BOARD_{it} + \beta_2 BMV_{it} + \varepsilon_{it}$$

$$Dis_Accurals_{it} = \alpha_0 + \beta_1 DIV_{it} + \beta_2 BMV_{it} + \varepsilon_{it}$$

9. RESULTS

9.1 Chow test or the test of structural changes in hypothesis:

In order to test hypothesis, first of all time fixed effect models are estimated and then structural changes test is used for investigating significance difference.

Hypothesis	Cross sectional cut	statistics	Freedom degree	significance
1	F	0.352696	(120,176)	0.5834
	Chi-Square	49.349496	Chi-Square	0.4792
2	F	0.632612	F	0.9980
	Chi-Square	81.476446	Chi-Square	0.9840

10. Durability test for research variable

	Lovin, Lin & Cho	Eim, pesran & Shin	Generalized Fisher-Dickyfuler	Fisher-philips,pron
Size	-27.0402	-3.21542	252.929	454.520
	0.0000	0.0000	0.0000	0.0000
Board	-8.14710	4.57846	161.703	25.4116
	0.0000	0.0565	0.0956	0.0000
DIV	-53.5100	-17.1990	382.486	512.600
	0.0000	0.0192	0.0001	0.0000
BMV	334.908	-31.0729	-5.84646	340.925
	0.0000	0.0000	0.0000	0.0000

11. heteroscedasticity pre-tests method

Hypothesis 1				
	statistics		Statistics probability	
Brosh-Pagan gadfery	F-statistic	3.325201	Prob. F(2,164)	0.0018
	Obs*R-squared	7.008712	Prob. Chi-Square(2)	0.0018
	Scaled explained SS	3.765410	Prob. Chi-Square(2)	0.0886

Hypothesis 2				
	statistics		Statistics probability	
Brosh-Pagan gadfery	F-statistic	0.339289	Prob. F(2,164)	0.1234
	Obs*R-squared	0.698320	Prob. Chi-Square(2)	0.0239
	Scaled explained SS	0.586195	Prob. Chi-Square(2)	0.0972

- H1: There is a significant relationship between board size and earnings management for companies' listed Tehran stock exchange.

$$Dis_Accruals_{it} = \alpha_0 + \beta_1 BOARD_{it} + \beta_2 BMV_{it} + \varepsilon_{it}$$

H_0 : There is not any significant relationship between Dis-accruals and Board

H_1 : There is a significant relationship between Dis-accruals and Board

12. The result of Hypothesis 1 test

variables	coefficient	Standard deviation	t statistics	significance
fixed	1.121297	0.321746	3.485043	0.0005
Board size	-1.592533	0.456951	-3.485126	0.0005
Book to market ratio	0.009162	0.005022	1.824142	0.1287
Determination Coefficient	0.257654	The mean of dependent variable	-0.021098	
Adjusted Determination Coefficient	0.138634	Standard deviation of dependent variable	1.113033	
Regression error	1.238409	The remaining amount of square	657.2333	
F statistics	1.689886	Dourbin - Watson	2.135909	
F statistics porob	0.000036			

According to table as the amount statistic Dourbin - Watson test is 2.13 and model index in alpha error level is more than 5%, so the assumption of the lack of correlation between errors is

accepted and the Regression model can be used. The amount of adjusted determination coefficient is 13% which indicate that 13% of changes in total research dependent variable depend on independent and control variables in this model. According to significance of t statistics there is significant relationship between board size and earnings management for companies' listed Tehran stock exchange.

- H2: There is a significant relationship between dividend and earnings management for companies' listed Tehran stock exchange.

$$Dis_Accruals_{it} = \alpha_0 + \beta_1 DIV_{it} + \beta_2 BMV_{it} + \varepsilon_{it}$$

H_0 : There is not any significant relationship between Dis-accruals and DIV

H_1 : There is a significant relationship between Dis-accruals and DIV

13. The result of Hypothesis 2 test

Variables	coefficient	Standard deviation	t statistics	significance
Fixed	0.19057	0.157890	1.501901	0.1412
Board size	-0.126133	0.101239	-1.245899	0.2314
Book to market ratio	-0.108180	0.163548	-0.661455	0.5086
Determination Coefficient	0.132912	The mean of dependent variable	0.036989	
Adjusted Determination Coefficient	0.081720	Standard deviation of dependent variable	0.996972	
Regression error	1.035465	The remaining amount of square	3.082610	
F statistics	1.984390	Dourbin – Watson	1.201781	
F statistics porob	0.000046			

According to table as the amount statistic Durbin - Watson test is 1.2 and model index in alpha error level is more than 5%, so the assumption of the lack of correlation between errors is accepted and the Regression model can be used. The amount of adjusted determination coefficient is 8% which indicate that 8% of changes in total research dependent variable depend on independent and control variables in this model. According to significance of t statistics there isn't any significant relationship between dividend and earnings management for companies' listed Tehran stock exchange.

14. Study limitations:

- For measuring earnings management by using accruals, some of the accruals because registration is not included in the calculation.
- In calculating fixed asset ratio, some of the items reflected in the balance sheet have not been properly recorded by companies or reflected in current assets. The diagnosis of this issue has not been possible for authors.

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