

Research Article

INVESTIGATING THE IMPACT OF EARNINGS MANAGEMENT AND AUDIT QUALITY ON INVESTORS' EFFICIENCY OF THE LISTED COMPANIES IN TEHRAN STOCK EXCHANGE

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ABSTRACT

This article examines the impact of earnings management and audit quality on investors' efficiency of the listed companies in Tehran stock exchange. To do this, data of 100 listed companies in Tehran stock exchange during 2008 to 2012 and also linear regression was used. The obtained results indicated that there is a significant and direct relation among earnings manipulation and overinvestment while they didn't find a significant relation between audit quality and overinvestment. The results also demonstrated that among the control variables of this research, there is direct and significant relationship between sale growth and firms' overinvestment and also significant and adverse association among operational cash flow and firms' overinvestment, but they didn't observe a significant relation between market value to book value of equity ratio and overinvestment.

Keywords: *Earnings Management; Investment; Investment Efficiency; Audit Quality*

INTRODUCTION

Introduction

Auditors look for gaining expertise to handle active firms because they can distinguish themselves from other auditors. This differentiation enables them to have two or more chances simultaneously with less prices and higher service quality (higher-quality disclosure) in place of only one interesting opportunity in order to attract shareholders' general assemblies. Due to monitoring on vast part of firms in an industry, specialist auditors have experiences which distinguish them from other auditors. So they have higher ability in discovering vital manipulations and errors of disclosed data by employer than other auditors. Furthermore, they try to avoid any wrong report or manipulation due to keeping their reputations sound and maintain their share from the market. Income reporting is one of financial statements items which are used as a performance assessment and profitability index in a profit entity. Estimating net income of a profit entity is affected by accounting methods and estimations. Managers' authority to act in utilizing Generally Accepted Accounting Principles, estimation and prediction, as well as some methods such as change in inventory valuation method, amortization of goodwill, current cost or determining the cost of bad debts are the samples by which managers can change incomes. In one side, it is expected that managers –due to more familiarity with the firm's situation and other reasons such as to be retained in the company, get rewarded, etc- prepare and provide information in a way that they can report the firm's situation in a best possible form. Under these conditions, real earnings and reported earnings are in conflict in financial statements and an event is happened called "earnings management". With respect to resources constraints, increasing the efficiency of investment along with investment development are the important issues in a today world. In one side, the efficiency of investment is required to prevent from consumption of resources in over-investments, and resources to be directed toward under-investment (prevent from under-investment), on the other side. Facilitating the efficient allocation of capital is one of the financial reporting which improving investment-related decision is the most important aspect of this role. Therefore, it can be concluded that increased financial transparency has possible capability in decreasing the inefficiency of investment. Whatever financial reporting quality gets increased and reliable standards and principles are used in preparing and auditing reports, the reliance of users would be increased and information risk would be decreased.

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Research Background

Badavar and Darkhor (2012) in their research "examining the relation between financial constraints, cash value and net investment" used financial information of 86 listed companies in Tehran stock exchange during 2006 to 2010 and concluded that cash increases firm value of those companies with financial constraints than those without financial constraints. As well, this research indicated that there is a direct association between cash and investment amount.

Gemariz and Balsta (2013) in their research "financial reporting quality, debt maturity and investment efficiency" using data of Spanish firms during 1998 to 2008, examined financial reporting quality, debt maturity and investment efficiency. Their results indicated that financial reporting quality would decrease overinvestment. Furthermore, investment efficiency would be enhanced through decreased over investment.

In their research, Lenard and Yo (2013) examined the impact of earnings management and audit quality on over investments in Chinese firms. The results showed that discretionary accruals and audit quality significantly impact on firms' over investment.

Chen *et al.*, (2014) examined the impact of financial reporting quality on over investment using information about emerging markets and concluded that higher financial reporting quality helps the companies with under-investment to invest and assists over-investment companies to lower their investment levels.

MATERIALS AND METHODS

Research Methodology

Research's Hypotheses

- There is a significant relation between earnings manipulation and over-investment.
- There is a significant relation between lower audit quality and over-investment.

Research Population and Statistical Sample

93 companies were selected based on systematic omission method during 2008 to 2012. The firms should have the following conditions:

1. Their fiscal year should end in 19/3/- Their fiscal year should end in 19/3/- thus it can be possible to collect their data and apply them in a panel frameworks..
2. Their financial period should have not been changed to their financial performance can be compared.
3. They should not be part of active firms in financial activities such as investment companies, banks, insurance or financial institutions. Because these institutions have different natures and their main incomes are obtained from investment and depend on other firms, so they are naturally different from other firms and would be ignored from the research.
4. Their information should be available during 2008 to 2012 to facilitate the correct calculations.
5. Their transaction should not be stopped more than 6 month during a fiscal year. Since it weakens the ability of market value estimation, finally leads to lack of providing the research's variables.

According to the above conditions, 100 firms were selected as statistical samples. It should be noted that each firm have 5 extractable financial information series in financial statements and other related information resources during 2008 to 2012.

Regression Model

The following equation is used for testing the research's hypothesis:

$$OVERINV = \alpha + \beta_1 MTB_{it} + \beta_2 CF_{it} + \beta_3 Growth_{it} + \beta_4 DAC_{it} + \beta_5 Less + \varepsilon$$

OVERINV: Bidel *et al.*, (2009) model has been used for estimating over-investment.

Investment_{it}: Total investment of the firm i in the year t which is equal with (based on the definition by Gomariz and Balsta, 2013) net increase in tangible and intangible assets divided by previous year total assets.

Sales Growth_{it}: It indicates that growth sale is equal with increased sale rate of the firm i in the year t-1 with respect to the year t-2.

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DAC_{it}: It shows earnings management which is obtained from Jones modified model for calculating discretionary accruals.

Less_{it}: This term means "lower audit quality". If it refers to audit organization, 1 is regarded, otherwise 0.

MTB_{it}: Market value to book value of equity ratio.

Growth_{it}: It indicates Firm growth that is equal with the difference between current year and previous year divided by previous year sale.

Data Analysis Method

Chow Test

Table 1-1: The results of Chow test

| H0 | f-statistics | Significance level | Results of Chow test |
|--|--------------|--------------------|----------------------|
| Cross-sectional and time effects are not significant | 2.402 | *0.000 | H0 is rejected |

* 5% error level

Regarding table 1-1, the results of Chow test indicate that the obtained probability for f-statistics is less than 5%, so data are used in the form of panel data.

The Results of Hausman Test

Table 2-1: The results of Hausman test

| H0 | Ch-square statistics | Significance level | Test's result |
|----------------------------|----------------------|--------------------|----------------|
| Using random effects model | 27.647 | 0.001 | H0 is rejected |

* 5% error level

Regarding the results of table 2-1, the significance level of Hausman test is less than 0.05, so fixed effects method should be used for calculating the model's coefficients. The obtained results are offered using fixed effects model and generalized least squares in the table 3-1.

Table 3-1: The results of the research's hypotheses

| Variable | Coefficients | Standard error | t-statistics | Significance level |
|----------------------------------|--------------|------------------------------|--------------|--------------------|
| Y-intercept | 0.911 | 0.239 | 3.81 | 0.000* |
| Earnings management | 0.237 | 0.561 | 3/96 | 0.000* |
| Sale growth | 0.034 | 0.005 | 6.338 | 0.000* |
| Market value to book value ratio | 0.007 | 0.013 | 0.573 | 0.566 |
| Operational cash flow | -0.568 | 0.085 | -6.615 | 0.000* |
| Audit quality | 0.013 | 0.035 | 0.377 | 0.706 |
| F-statistics | 4/69 | Coefficient of determination | | 0.518 |
| | | Adjusted R ² | | 0.456 |
| F-statistics probability | 0.000** | Durbin-Watson | | 2.203 |

* 5% error level, 1% error level.

According to the table 3-1, Durbin-Watson statistic is 2.203 which are located among 1.5 to 2.5. Meanwhile, significance level of f-statistic is 0.000 which is less than 0.05, indicating the model is significant. Another point in table 9 is its coefficient of determination. This coefficient is approximately 45.6%, indicating the independent variables can describe about 50% of dependent variable changes. As the results show (table 9), since t-statistics of earnings management variable is more than +1.965 (equal with +3.96) and its significance level is less than 0.05, there is a significant relation between earnings

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management and over-investment. This relation is direct due to its coefficient (0.237), so the first hypothesis is confirmed, namely over-investment is increased along with increased manipulation. Regarding to the table 9, the variable of audit quality has coefficient of 0.013 and significance level of 0.706. Hence, it can be said that there is no significant association between audit quality and over-investment of the listed companies in Tehran stock exchange. Therefore, the second hypothesis would not be confirmed.

Conclusions and Recommendations

There is a direct and significant relation between earnings management and over-investment of the listed companies in Tehran stock exchange. So, the readers should consider that they can use earnings management variable for forecasting and analyzing the amount of over-investment in the listed companies in Tehran stock exchange. Yet, there is no significant correlation among earnings management and over-investment in those companies. In other words, the second hypothesis was rejected and recommended to the readers to don't use audit quality in analyzing their over-investment in the listed companies of Tehran stock exchange. It was recognized, also, there is a direct and significant among firms' sale growth and over-investment. Therefore, investors and owners of the listed companies in Tehran stock exchange as well as general users of this research can utilize the information about firm's sale growth when they want to examine over-investments in those companies. Also, the results indicate significant and adverse impacts of other control variables, such as operational cash flow on over-investment. In other words, whatever operational cash flow gets increased in the listed companies in Tehran stock exchange, the amount of over-investment would be increased, vice versa. Hence, this variable can be a suitable index for analyzing investment in the listed companies in Tehran stock exchange.

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