

Relationship between institutional ownership and agency cost in investing market of Iran

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Abstract: The primary aim of companies is wealth growth of owners, then, due to profits conflict, managers won't obtain maximum of profits for owner or owners. Problem of agency is encouragement agent to make decision that it causes owner (owners) wealth, and by formation relation agency, agency cost make by profit conflict among parties. In this study, it was reviewed relationship between institutional ownership and agency costs of accepted companies in Iran market. In order to do this study, it was selected 94 companies of Tehran Stock Exchange in 5 years (2007-2011). It was used to test hypothesis and study relationship between institutional ownership (independent variable) and agency cost (dependent variable) by linear regression model in 95% meaningful level by using software EXCEL and SPSS. Findings indicated that there is a positive and meaningful relationship between institutional ownership level and agency cost, and there is a negative and meaningful relationship between institutional ownership concentration and agency cost.

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1. Introduction

In past, current years, economists assumed that all groups related to stock company activated for a common goal, but in 30 years ago, it was raised many cases about conflicts among groups and way of encountering companies in conflicts by economists. These cases stated as agency theory in management accounting (Namazi & Kermani, 2008).

Agency relation is a type of contract that a person or persons (owner or owners) have been assigned to perform operation and also, they resigned to make decision in affairs (Jensen & Meckling, 1976).

Agent was formed by relation agency due to profits conflicts among parties of costs. The question was raised: whether different structure of companies ownership influenced on their agency costs, i.e. if ownership structure is as institutional or private form, will be their agency cost? Which one different combinations of ownership have influenced on agency costs reduction? By answer to these questions, it can be done suitable works to reduce agency costs. Main purpose of this study is review effect of institutional ownership on agency costs of accepted companies in Tehran Stock Exchange. When great owners of company became investing companies, managers of these companies are attorney and their stockholders are client. Along with evaluating Bourse companies' performance by managers of investing company, performance of these managers also assessed by company stockholders and yield of investing company will be

determinant role in stabilization or insecurity of job position of company managers. Also, when institutional stockholder is a financial institutions, with regards to experience, expertise and evaluation ability and top management, he/she can be done better and effective control (monitor) on invested company management and it was expected that result is required recommendations, yield growth and performance development of invested company.

2. Literature

Florackis (2008) reviewed effect of different organized leadership of company on agency cost about 897 UK companies during 1999-2003. He was used two factors as agency costs: selling rate to assets and operational costs rate to selling. His findings indicated that there is a meaningful relationship between managers' ownership, managers' awards and ownership concentration and agency costs. Lowering methods of agency cost are rate of borrowing from banking system to debts volume and rate of short time debt to debts volume and also number of unbound members of board. With regards to growth opportunities, effect of inner methods in company leadership on agency costs will be different. For example, results indicated that managers ownership in higher growth companies related to other companies is an effective way in solve problem of agency (Florackis, 2008).

Fleming et al (2005) was done a study on 3800 small and medium Australian companies during 1996-97 and 1997-98. By studying relationship between rate of operational costs to selling and also

rate of selling to assets as agency costs, managers found that there are indirect (reverse) relationship between both of them; then severity of this relationship in Australia was similar to American studies results very little. On the other hand, by different levels testing of family ownership, they found that agency costs of company will be decrease if family ownership increases (Fleming et al, 2005).

Ang et al was tested relationship between agency costs and ownership structure in 1708 American small companies. In this study, agency costs were measured as selling rate into asset and rate of operational costs into selling and results are:

1. There is indirect (reverse) relationship between agency costs and managers ownership.
2. There is direct relationship between agency costs and number of great stockholders and except manager when measuring agency costs as assets return.
3. There is a meaningful relationship between debt rate and agency costs if it was used the first method to measure agency costs.

Durn Henry reviewed in paper as title corresponding agency costs, ownership structure and corporate governance to study relations between ownership structure and agency costs. In this study, it was discovered useful and benefit relation between corporate governance and agency costs and also findings of this study indicated relationship between ownership structure and agency costs of accepted companies in Australia Bourse. This paper is used a key paper of this study (Henry, 2010).

Tsaia and Gu (2007) study relationship between institutional ownership and company performance in Casino industry during 1999-2003. Institutional ownership is equal to percentage of stock by state company from total invested stocks and these companies consist of insurance companies, financial institutions, banks, state companies and other government parts. They showed that institutional investment in casinos may be help to industrial investors to reduce agency problem due to management and ownership distinction (Tsaia&Gu, 2007).

Karami (2008) in paper as title relationship between institutional ownership and profit informational content by using linear regression reviewed effect of institutional investors monitoring on informational content of companies profit. The above study was done 61 companies during 1997-2004. Generally, results stated that number of institutional ownership doesn't lead to promote informational content of company profit and it may be decline. While institutional ownership level

reduced profit informational content, it cause increase (Karami, 2008).

Norvash and Karami reviewed relationship organized method of company leadership and agency costs in accepted companies in Tehran Stock Exchange in 2009. In this study, it was used Q-Tubin index and free cash flows to obtain agency costs and it was reviewed institutional ownership, percentage of unbound members and debt rate as independent variable. Findings indicated that there is relationship between percentage of unbound members of board and percentage of institutional investors and agency cost (Norvash and Karami, 2009).

Hassas Yeganeh, Moradi and Eskandar (2008) were tested relationship between institutional investors and company value during study on accepted companies in Tehran Stock during 1997-2003. Findings stated that there is positive relationship between institutional investors and company value. They illustrated results that with regards to motivations to improve invested companies performance, institutional investors had effective monitoring on them and directors (managers) have been encouraged by better decisions and improve in company performance (HassasYegane et al, 2009).

3. Hypothesis

To obtain study purposes, the following hypothesis was brought to test them:

First hypothesis: There is relationship between institutional ownership level and agency cost.

Second hypothesis: There is relationship between institutional ownership concentration and agency cost.

4. Methodology

This study is applicable and it is methodologically descriptive-correlative. Purpose of this study is relation between institutional ownership (independent variable) and agency cost (dependent variable) that it was linear regression model to review relation between two variables. Hypotheses were reviewed in meaningful level 95%. It's necessary to mention that it was don non-linear relation test between variables, also and with regards to F statistics and meaningful level, it was clear linear regression is the best way for variables.

4-1- Data Collection

In this study, it was used librarian method and archives to collect required data. Study tools consist of financial statements, notes and financial reports of above companies, that they were collected via RahavardNovin Software and Official Site of Tehran Stock Exchange and finally, after classification and calculating variables in Excel software, information were analyzed by using SPSS software.

4-2- Study Model and Variables Measuring Method

To review and determine effect of institutional ownership on agency cost, it was used regression model:

$$AGENCY_{it} = \beta_0 + \beta_1 INS + \beta_2 CONC + \beta_3 Size + \beta_4 DEBT + \beta_5 RISK + \beta_6 RET + \beta_7 BV + e_{i,t}$$

4-2-1- Independent variables:

- a. Institutional Ownership Level: It's equal to percentage stocks by great investors such as banks, insurance companies, investing companies, etc. (Bushee, 1998)
- b. Institutional Ownership Concentration: It was used to calculate institutional ownership concentration from HerfindalHarishman Index. This index is an economical index that it was used to measure rate of unique in market. Thereby percentage stock of each supplier in market became square and then they added. Its result was 0 – 1. Whenever it closes 1, it stated concentration and whenever it closes 0, it stated no concentration. In this study, it was used the following equation to measure institutional ownership concentration:

$$CONC = \sum_{i=1}^n (INS)^2$$

4-2-2- Dependent variable

Calculate Agency Cost:

In research by Mack Night and Wier and Dukas and et al, it was considered agency costs as function of balance between Q-Tubin Index (growth opportunities) and free cash flows. In this study, it was used Lan and Paulson Model to measure free cash flows of trade unit. Based on this model, it was obtained free cash flows from operational profit before depreciation and reduction of taxes sum plus interest cost and paid divided and it was standard by divide on assets sum that it was obtained via the following equation:

$$FCF = \frac{INC - TAX - INTEXP - PSDIV - CSDIV}{ASSET}$$

FCF: free cash flow

INC: operational profit before depreciation cost reduction

TAX: income tax

INTEXP: interest cost

PSDIV: paid interest to distinctive stockholders

CSDIV: paid interest to ordinary stockholders

$$QTobins = \frac{MVE + PS + DEPT}{TA}$$

PS: distinctive stock settlement value

DEBT: short term debt pure value + long term debt book value

TA: total assets book value

MVE: rights market value of stockholders as price of each stock multiplied number of ordinary stock

By multiply two above factors, Q-Tubin index and Free cash flows (FCF), it was obtained agency cost.

Whatever its result was more, agency costs were higher. In the following, it's an agency cost equation:

$$AGENCY COST = QTobins * FCF$$

4-2-3- Control Variables:

- 1. SIZE (size of company): it's a control variable and it was measured by real logarithm of total income in fiscal year ending.
- 2. DEBT (debt rate): total debts divided to total assets
- 3. RISK (profit changes coefficient): it was measured by standard deviation from daily stock return in related period.
- 4. RET (stock yield): profit of each stock divided on stock price in year ending
- 5. BV (rate of book value to stock market value): stock book value divided on stock market value.

5- Society and Statistics Sample

The studied society consists of accepted companies in Tehran Stock Exchange in during years 2007-2011, that they had all the following conditions:

- 1. Company was accepted in TSE before 2007.
- 2. Fiscal year ending of companies is 20 March each year.
- 3. Number of transactional days isn't less than 70 days in each fiscal year.
- 4. It's not member of fiscal and investing companies.
- 5. Financial information of companies became available.

With regards to above limitations, 94 companies were selected and studied by delete systematic method as statistical sample.

6- Findings and Data Analysis

Data related to 94 companies were derived from resources such as RahavardNovin, Bourse Site during 2007-2011 and after classification and calculating variables in Excel software, finally, information were analyzed by using SPSS software.

6-1- Descriptive statistics

Table 1 has descriptive statistics of tested variables. In this table, there are statistics index, number of observations and standard deviation.

6-2- Normal test of dependent variable

Be normal of dependent variable distribution is one of the basic assumptions of correlative method. Meanwhile, here normal of dependent variable was reviewed by Kolmogorov – Smirnov test. Results of this test are in table 2. Since importance level of dependent variable is equal to 19.8%, i.e. more than

5%, then dependent variable has normal distribution. Hence, it can be found that amounts in regression line also have normal distribution and presumably, it hasn't variance dissimilar.

6-3- Results of first hypothesis testing

Findings of tests and statistics analyses are in table 3 and indicated that independent variable coefficient of institutional ownership level is positive and meaningful in regression model. With regards to

sig (meaningful level) of T and F statistics in determined model is less than 5%, this information stated that H0 is rejected and H1 is accepted and it stated first hypothesis is accepted. Then, there is direct (positive) relationship between institutional ownership level and agency cost. That is it can say that whenever institutional ownership level increased, agency cost increased meaningfully. Therefore, first hypothesis confirmed.

Tables:

Table 1- descriptive statistics of variables

Variables	Number of Observations	Average	Standard deviation
Institutional ownership level	470	0.65	0.35
Institutional ownership concentration	470	0.75	0.624
Size of company	470	4.563	0.762
Debt rate	470	0.128	0.155
Profit risk coefficient	470	1.526	0.152
Dividend rate	470	1.635	0.234
Book value to stock market value	470	0.568	0.113
Agency costs	470	11.944	0.753

Table 2- Kolmogorov – Smirnov test

Explanation	Agency cost index
Number of observations	370
Kolmogorov – Smirnov statistics	1.075
Meaningful level	0.198

Table 3- results of statistics analysis of first hypothesis testing

AGENCY _{it} = β ₀ +β ₁ INS+β ₂ Size +β ₃ DEBT +β ₄ RISK +β ₅ RET+β ₆ BV+ e _{it}								
Result	Durbin-Watson Statistics	Determinant potential			Variance analysis	Independent variable		Dependent variable
		Balanced-R ²	R ²	R	F statistics (meaningful)	Institutional ownership level		Agency cost index
						t statistics (meaningful)	Coefficient	
confirmed	1.963	0.375	0.383	0.619	45.241 (0.000)	7.673 (0.000)	1.986	AGENCY

Table 4- results of statistics analysis of second hypothesis testing

AGENCY _{it} = β ₀ +β ₁ INS+β ₂ Size +β ₃ DEBT +β ₄ RISK +β ₅ RET+β ₆ BV+ e _{it}								
Result	Durbin-Watson Statistics	Determinant potential			Variance analysis	Independent variable		Dependent variable
		Balanced-R ²	R ²	R	F statistics (meaningful)	Institutional ownership concentration		Agency cost index
						t statistics (meaningful)	Coefficient	
confirmed	1.968	0.372	0.380	0.617	44.674 (0.000)	-6.805 (0.000)	-2.048	AGENCY

6-4- Results of second hypothesis testing

Findings of tests and statistics analyses are in table 4 and indicated that independent variable coefficient of institutional ownership concentration is

negative and meaningful in regression model. With regards to sig (meaningful level) of T and F statistics in determined model is less than 5%, this information stated that H0 is rejected and H1 is accepted and it

stated second hypothesis is accepted. Then, there is indirect (negative) relationship between institutional ownership concentration and agency cost. That is it can say that whenever institutional ownership concentration increased, agency cost decreased meaningfully. Therefore, second hypothesis confirmed.

7- Conclusion

Information related to companies agency cost help managers and investors to make decision better in order to gain company aims. Problem of agency is agent encouragement to make decision that maximizes owner (owners) wealth. By formation agency relationship, it makes agency cost by profits conflict between parties. Whenever costs were low, performance company will be better. Type of ownership structure is a factor that can be influenced on rate of agency costs. In this study, it was try to review relationship between agency cost and institutional ownership. In order to collect information and required data; sample companies was calculated and it was used relationship agency cost and institutional ownership and other control variables by using multi-variable regression and T-test in confidence level 95% to determine meaningfulness of correlative relationship among above criteria. With regards to tests and analysis were done by regression and correlation, it was concluded that there is direct (positive) relationship between two variables, institutional ownership level and agency cost in accepted companies in invested market of Iran, i.e. by increasing institutional ownership level, dependent variable i.e. agency cost will be increase. With regards to tests and analysis was done by regression and correlation, it was concluded that there is reverse (negative) between two variables, institutional ownership concentration and agency cost in accepted companies in invested market of Iran, i.e. by increasing institutional ownership concentration, dependent variable i.e. agency cost decreased.

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