

A Survey on Relation between Ownership Structure and Stock Returns of Companies

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Abstract: Ownership structure affects managers' enthusiasm; hence, efficiency of organization is one of the most important issues in organization. Demonstration of ownership structure, its kind, and its optimal composition is a way to control. Thus, we aim to investigate the relation between ownership structure and stock return in companies which are listed in Tehran Stock Exchange (TSE). Following, we investigated the relation of two ownership structures and stock returns. Statistical samples were 106 companies during 2008 and 2012. factor model was used to expose our variables relations. In our model, returns used as (**dependent variable**) and managerial ownership percentage and institutional ownership percentage used as (**independent variables**). Our results indicate that there was a significant relation between dependent and independent variables. Adhesion tests represented that relationship of returns to managerial and ownership respectively was positive and negative.

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1. Introduction

One of important and permanent issue of financial management is the relation between ownership structure and company's performance. According to the theoretical basics, a reverse relationship was between stock holders dispersal and enterprise's performance. In addition, larger companies had more dispersal and enterprise's performance. Furthermore, the larger companies had more dispersed ownership structure. Thus, managers increasingly will become a kind of owners and idea of manager's ownership that is a common advantage of the manager and the stockholder will become a motivational factor and these days this factor is implicitly a standard assumption in many investigations.

For many years, economists assumed that all groups of a company have a common objective. However, they have presented many cases of contradict advantages of these groups and discussed how company must deals with these contradictions. This case generally called agency theory in management accounting. Representation is a contract between owner and his agent who make decision. If different groups, such as financial institutions, banks and company owners want to maximize their performance or better say their wealth, how can have the best performance? One answering this question is doing more adequate actions in order to improve the returns. Therefore, investors and decision makers will pay attention to the composition of the company's owners in order to improve their returns. Following, in order to have better and more accurate assessments of manager's performance, it seems to be necessary

to investigate the relation between ownership structure and returns.

Now, we study the effect of ownership structure on returns of companies in Tehran Stock Exchange (TSE). We empirically, try to show to managers, investors, and other decision makers that different ownership structures have different affects on their returns. In other words, when different groups, financial institution, the bank and other private enterprises are owners of company, return will be different in every case. Furthermore, which one of these different components of ownership has more effect on the company's improvement?

2. The literature

Generally, ownership of a company consists of legal, cultural, and institutional arrangement that guide company's movement and performance. The ownership constituents are stock holders and their ownership structure, management board and its composition. Management of company by **CEO** or chief executer and other holders can effect on company's performance. The most attractive element is increasing presence of institutional and managerial investors as owners in corporations and effects of their presence on controlling as well as performance of organizations. The most important issue in corporation governance is to ensure about right and governance of stock holders on corporation management. One important category of corporation governance is consciousness of ownership structure is measurement based on standard scales, in order to write the necessary strategies for establishment of that governance.

Corporate governance is a set of laws and procedures about relations of managers, stock holders

and accountants and through supervision system supports the stock holder's rights. It is one of basic components of agency theory and social responsibilities of managers. Consequently, corporate governance aims to ensure that board and investors can get returns of their investments. Today, organizations emphasize on division of ownership and management to reduce contractions between management and stock holders.

Jayesh Kumar (2004) is a survey in India on ownership structure effects on company's value and suggests that managers have the largest effect on performance and holding of foreigner stock holders had not significant relationship.

Anline and et al (2005) studied managerial structure of 133 companies in Taiwan between 1995 and 1999. They found that, there is a positive and significant relation between the form of legal ownership and return performance. Following, when managers are owners, there is a reduction of performance and this is in opposition with agency's theory.

Aryan Chapel (2004) showed that about two out of three of active companies in Belgium have centralized ownership structure because of increasing control on company. Most Belgian companies tend to macro ownership structure composition. In this composition, main stock holders had at least, 50% of stocks. Chapel noted that main Belgian stock holders have a great power to control because the board members and mainly, act in favor of these stock holders and managers. Even if their mode of control and management be against the law, stock holders advantages are known as the best option in order to violate the law. **Brack Seifret (2002)** in a research on **Germany, UK, US and Japan** found out that at the presence of main and legal stock holders in the ownership structure composition has a significant relation with performance and manager who has the responsibility can have positive effect on performance.

Albert Migall (2004) on a research over the same countries as well as Australia and Spain showed that the ownership can deal successfully in those countries if laws and governance frames such as supporting holders and market control over the company by reinforcement. Successful ownership dealing is also needs the effective board and high development of the market. Whether institutional investors prefer to establish their portfolio in corporations that they have better governance mechanisms and it's still the subject of Bush and et al (2008) analysis showed that in fact, there is no sensitive relations between institutional ownership and corporation's governance, although, the institutional investor have motivation for investing in

corporations that have the better governance mechanisms. **Tesai and Go** have researched analyzed the relations between institutional ownership and corporation performance during 1999 and 2003. These companies include insurance, finance; bank, public corporation and other sections showed that institutional investment in companies may help to investors to reduce agency problems which are results of management and ownership differentiation.

Mioller and spites (2006) analyzed the relation between managerial ownership (in board family members) and performance of middle and small sized German companies by means of hypothesis test. Their sample includes 365 service companies between 1997 and 2000 which they have relation to the trade section. Their research's results showed that performance of companies with more than 40% managerial ownership.

3. Hypotheses and Variables

According to theoretical bases above mentioned, we make these hypotheses:

- Positive relation exists between the returns and managerial ownership.
- Positive relation exists between the returns and institutional ownership.

We use these variables in order to test these hypotheses:

4. Independent Variables

The most important independent variable in this research is ownership's structure. We have studied effects of two types of ownership structure like managerial and institutional ownership on these corporation's returns.

Managerial Ownership: a corporation has its ownership structure when managers have some of its stock. Agency problems may be solved partly by these structures. We have got this variable by calculation of manager's stocks in all the stocks of a corporation.

Institutional Ownership: a corporation has this ownership structure when some of its stocks are invested in institutions such as insurances, banks or investing companies in order to centralism of ownership and therefore, centralism of corporation governance. Here, the variable is got by calculating the stocks of supreme investor in all stocks of a corporation.

5. Dependent Variable

Return(s): that is all benefits of a stock in a given period of time (a day, a month, a year). The benefits are in cash dividend or capital gain. The return is calculated as such:

$$R_{i,t} = (R_{i,t} - R_{i,t-1}) + D_{i,t}$$

$R_{i,t-1}$

Where $R_{i,t}$ denotes sum returns of i corporation in period t and $P_{i,t}$ denotes the price of corporation's

stock at the end of period t , $P_{i,t-1}$ is the price at the beginning of period t and $D_{i,t}$ is distribution of stock ownership's benefits including dividend, awards, primary rights, decline of nominal value, in period t . Our statistic community consists of the corporation of **Tehran Stock Exchange (TSE)** during **2008** and **2012**. To demonstrate the samples, we use the procedure of systematic elimination whose rules can be defined as:

1. **21st of March** is the last day of Fiscal year (or the end of Fiscal year)
2. The corporation under study has no change in financial calendar.
3. Corporation's transaction symbol did not move to informal stock exchange bulletin board.
4. The corporation's symbol is activated at least once a year for the transaction.
5. The corporation's transaction symbol should not be stand more than four months.
6. Availability of financial information during the consideration period.

Figure 1: procedure of sampling

Process	Number of Companies
TSEO corporations from 2008 to 2012	403
Manufacture corporations	315.
The financial year's end is 21 st of March	233
No change in financial year	206.
Availability of financial data in the chosen period	164
Stock is exchanged, at least once a year	106
Final samples	106.

As a result of systematic elimination procedure 106 corporations have been selected. The period is 5 continuous years. The ultimate volume of the sample is ($5 \times 106 = 530$) Year Corporation.

6. Methodology

Attending to the nature of our research two methods used included: library and field methods.

Library method: that is, using books, journals, dissertations, articles and websites. It is used to primary study, writing the "literature" section, and theoretical framework.

Field method: in order to gather the data and testify the hypotheses; we use this method that consists of going to corporations and then, information inference by Tadbir Pardaz software and from TSE database. Finally, the data have been written in Excel columns and the variables are calculated to test the hypotheses and interpret our results.

It is an empirical research. Therefore, it must be done by means of available historical data. We use of correlation and regression as our methodology. Following, relations of variables are analyzed for the goal of research. The effect of independent variable on dependent variable is measured by regression tests. In the inferential statistics from the appropriate testing hypothesis with the significance level of **95%**, the research hypotheses are checked and its use of correlation coefficient and regression analysis, the amount of relation between independent variables and dependent variables and their interactions are measured.

Linear Regression:

In regression analysis, researchers want to find out casual relation of dependent and independent variables. The simple regression equation is generally as following:

$$Y = \alpha + \beta X$$

Where α and β denote fixed values and coefficient, called the origin width, denotes Y value for coefficient denotes slope of the line (line gradient) and illuminates Y changes by an unit change of X .

Fama and MacBeth (1973) bifactor model is used to test hypotheses. The return is (**dependent variable**) and we use as a function of the percentage of managerial and institutional ownership (**independent variables**).

$$R_{i,t} = \alpha + b_1 \text{MAN}_{it} + b_2 \text{size}_{it} + \epsilon_{it}$$

Where $R_{i,t}$ denotes sum of returns of corporation in the period, X_i denotes the percentage of managerial (institutional) ownership in i corporation and size of corporation (natural logarithm of properties) as the control variable of the model and denotes error scale. At above regression equation, B_i denotes the relation between ownership structure and the returns. B_i is dependent variable's coefficient in regression test. On the other words; the slope of the regression is estimated. Statistic propositions on this coefficient and its relation, sensibility and coefficient of determination raised from the regression test are bases for hypotheses testing. These propositions are as following:

$$H_0: b_1 = 0$$

$$H_1: b_1 \neq 0$$

$$H_0: R_{i^2} = 0$$

$$H_1: R_{i^2} \neq 0$$

Tests are done by **SPSS**. Sensitivity of relations between the variables is measured by that software outputs. The above we mentioned that the hypotheses are statistically tested through independent variables **P-value** and their comparison with α level in correlation tests.

Table 1: dispersal and central measurements

Variable	Min	Max	Average	Standard Deviation
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Return	72/38	185/69	9/25	41/56
INST	7/04	74	65/59	24/14
MAN	0	97/32	14	14/33
SAIZ	6/62	18/71	9/47	1/73

SIZE: The Size of Firm

MAN: Property Management’s Percentage

INST: Institutional Ownership

RETURN: The Total Return on the Stock

On the table above shows the data descriptive analysis of our research. Return, including dividend and price changes of the given period is dependent variable. Amplitude changes of these variables are on the top of the list. As result of the negative return and multiplicity of corporations is the average. On the other hand, it’s less than averages of other variables.

Average of institutional ownership percentage is bigger than average of managerial ownership percentage. This means that the ownership structure is under the corporation’s research that is often institutional. Variable’s size is measured by natural logarithm of corporation’s properties in order to measure the decreasing the vibrations and have the equal data

7. Test Normality

Klomogorov-Smirnov test is designed to fine out the distribution’s types. Through the comparison of the absolute value of the largest difference between real observed quantities and expected quantities, statistics of above test would be resulted. The proper measurement of this test would show that the data are certain types (in here the normal type). Parametric methods are used in the communities of normal distribution; non-parametric method is in the communities of abnormal distribution. Thus, we must find out that, whether our data are normal, then we test our hypotheses. Table below shows that result of these four variables which are originated from **Kolmogorov-Smirnov’s** test. It may proclaim that the data is following the normal distribution because **P-value** is zero and also statistical results are less than 1.

Table 2 : Tests of Normality

Test Variables	Kolmogorov-Smirnov			Shapiro- wilk		
	Statistic	df	Sig.	Statistic	df	Sig
Return	0.134	529	0.000	0.824		
INST	0.157	529	0.000	0.852		
MAN	0.231	529	0.000	0.582		
Size	0.168	529	0.000	0.869		

8. Findings

Hypothesis: Significant relation exists between managerial ownership and return.

H₀: *there is no sensitive relation between managerial ownership and return.*

H₁: *there is sensitive relation between managerial ownership and return.*

A linear regression equation is used to test this hypothesis. The return in this equation is function of managerial ownership and size. The model is:

$$R_{it} = a_t + b_1 MAN_{it} + b_2 size_{it} + e_{it}$$

$$H_0: b_1 = 0$$

$$H_1: b_1 \neq 0$$

Where **R_{it}** denotes sum of returns of **i** corporation is **t** period, **X_i** denotes the percentage of managerial (institutional) ownership in **i** corporation; **size_{it}** is size of coronation (that is natural logarithm of assets) as the control variable of the model and **e_{it}** denotes error scale.

Table 2:1st Hypothesis Test Results

Independent Variable	(Sig)	Nomination Coefficient (R ²)	β _t	P-Value
MAN_{it}	53.437	0.169	0.869	0.000
size_{it}	(0.000)		3.169	0.004

MAN: percentage of managerial ownership

Size: size of corporation (natural logarithm of assets).

Result for the first **H** is **53.437** and **P-value= 0.0000**.

This demonstrates that regression equation is linear. Thus, we may proclaim that there is a significant relation between dependent and independent variables.

Nominative coefficient (**R²**) is a better measurement than correlation coefficient. Our results show that in testing the effects of managerial ownership on return is **R² =0.169**. Consequently, **1.69%** of return changes may be explained by percentage of manager’s ownership and size of corporation. When return is dependent variable, the researchers often will use size as control variable. Here, size variable is added equation to reduce the effects of corporation’s characteristics. Its variable coefficient is **3.169** and **P-value=0.004** is more than variable coefficient of managerial ownership. As a result, corporation affects on return.

2nd Hypothesis: there is a significant relation between percentage of institutional ownership and return.

It can be stated as following:

H₀: *there is no sensitive relation between percentage of institutional ownership and return.*

H₁: *there is a sensitive relation between percentage of institutional ownership and return.*

A regression equation, return in which is a function of institutional ownership percentage and size of corporation, is used. Model is:

$$R_{it} = a_t + b_1 INST_{it} + b_2 size_{it} + e_{it}$$

$$H_0: b_1 = 0$$

$$H_1: b_1 \neq 0$$

Where **R_{it}** denotes sum of returns of **i** corporation in the period, **INST_{it}** denotes the percentage of institutional ownership in corporation, **size_{it}** is variable of the model, and **e_{it}** denotes error scale.

Table 3 shows the results. The Assurance level test of **95%** and it's with the use of **SPSS** software.

Table 3: 2nd Hypothesis Test Results

Independent Variable	(Sig)	Nomination Coefficient (R ²)	β 1	P-Value
INST _{it}	15.53	0.056	0.482	0.001
size _{it}	(0.000)		4.376	0.000

INST_{it}: The percentage of Institutional Ownership

Size: Size of Corporation (Natural Logarithm of Properties)

F result for the second hypothesis is **15.53** with **P-value=0.000**. This demonstrates that regression equation is linear. Thus, we proclaim that there is a significant relation between dependent and independent variables.

Our results show that in testing the effects of institutional ownership on return, **R²** are **0.056, 5.6%**

of return changes may be explained by percentage of institutional ownership and size of corporation.

H₀: b₁ = 0

H₀ is not approved by significance level of **95%**.

9. Summary

Results (Table 3.1) demonstrate our both hypotheses significance level of **95%**. The statistics of the first regression test denotes meaningful relation of variables. Moreover, independent variable coefficient is in the first **H₁** model, positive and significant. On the other word, there is a positive relation between percentage of manager's ownership and return. **H₂** regression test denotes meaningful relation of independent and dependent variables. Also, independent variable coefficient is, in first **H₂** model, negative and significant. On the other word, there is a negative relation between percentage of institutional ownership and return.

Table 3.1: Results

Hypothesis	Meanfulness Test	Independent Variable Coefficient	Result
H₁ : There is no meaningful relation between Managerial Ownership and return.	(0.000)	0.869 (0.000)	disapproved
H₀ : There is no Meaning relation between Institutional Ownership and Return	(0.000)	- 0.482 (0.000)	disapproved

10. Conclusion

According to the results, it can be concluded that there is a meaningful relation between ownership structures and returns. Testing quantity of managerial ownership and return is main goal of the first hypothesis. Results denote a positive and significant relation. We have also verified the positive effect of size on return. Thus, we proclaim that changes in percentage of managerial ownership according to the changes in return and our first hypothesis become approved. Following, we tested the relation of institutional ownership percentage and return. Results denote a negative and sensitive relation. So, the more is institutional ownership, the less would be return. According to the results, our second hypothesis is approved.

11. Suggestions for Further Studies

We suggest that for more use of our results and help to illuminate the effect of ownership structure on return.

- The nature and character of relation between institutional ownership and corporation's value may be study through the grouping investors (they are the institutions with and without agent in the executive board).
- Effect of industry on relations between ownership structure and return.
- To define the other dependent and performance measurement variables to study

the effects of the ownership's structure on return.

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