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INVESTIGATION OF THE EFFECT OF INSTITUTIONAL OWNERSHIP ON VALUE OF COMPANIES ACCEPTED IN TEHRAN STOCK MARKET (CASE STUDY: 2006-2013)

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ABSTRACT

The purpose of this research is to study the effect of institutional ownership on value of companies admitted in Tehran stock market. To achieve research goals, 79 companies were investigated for an 8 year period from 2006-13. In this work, institutional ownership is presented as independent variable, company value as dependent one and ratio of market to office value, company dimension, sales growth, financial lever, systematic risk, changes of overall price index, and share cash efficiency as control variables. To perform research, data panel model and multiple linear regressions are used. Results reveal that there is a meaningful and positive effect between institutional ownership and the value of companies admitted in Tehran stock market.

Keywords: Institutional Ownership, Company Value, Tehran Stock Market

INTRODUCTION

Institutional stockholders have a powerful position in company management and can have an effective monitoring over company management, since they have a significant control over management an also coordinate the interests of stockholders.

Institutional stockholders constitute the insurance institutions including commercial, social support and retirement cashes. The purpose of this group of organizations which appear as investors, in addition to making benefits, is to empower their financial status to respond to future commitments accepted with regard to insurers, pensioners and other beneficiaries. Ownership structure has two dimensions, ownership concentration and stockholders identity. Stockholders are owners of the company and assign commercial operations to managers which can result in interests' contradictions. Stockholding arrangement and ownership structure are of the important issues in organizational management which affects managers' motivation and can have a considerable contribution to company efficiency. In past, economists assumed that all groups corresponding to a company act for the same goal. However, during 3 decades, a great deal of interest contradictions and how companies face such challenges are addressed by economists. These issues are in general addressed as the theory of representation. The main question in this context is that whether we can recognize and introduce an optimal combination of ownership and stockholding for companies. If yes, which combination of ownership is more effective in improving performance, increasing company value and stockholders wealth?

According to above notes and discovering the effects of institutional ownership, in this paper, it is attempted to find the probable relationship between institutional ownership and company value in companies admitted in Tehran stock market.

Problem Statement

Fluctuations of equity return is one of the challenging financial issues which is used by researchers of investment market in appearing companies. The reason of this tendency is the relationship between price fluctuations and consequently, return and its effects on performance of the financial division and economy as a whole. On the other hand, usefulness of the study of price fluctuations is considered as a criterion for risk. Moreover, policy makers can use this criterion as a tool for measuring the vulnerability of the stock market.

Stockholding arrangement and ownership structure is considered as one of the important issues of organizational which affects managers' motivations and therefore, can have a significant contribution to

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company effectiveness. However, during 3 decades, a great deal of interest contradictions and how companies face such challenges are addressed by economists. These issues are in general addressed as the theory of representation. Ownership structure or stockholding arrangement means the method of shares distribution and ownership rights with regard to authority and investment as well as identity and availability of the stockholders. Ownership structure of a company is considerable from various aspects and first of all, is defined based on two variables of internal stockholders or shares of internal and external stockholders. In this way, shares of institutional stockholders and government are considered as main parts of external ownership of companies. Shares of internal stockholders shows a percent of shares of stockholders which is for managers and personnel of the company. Shares of institutional stockholders imply a percent of the company shares which is for institutional and legal investors. Theory of ownership structure as well as ownership arrangement of a company can be taken into consideration from various aspects such as centralization or decentralization, being institutional or real, managerial or non-managerial stockholders. It must be noted that the effect of ownership structure of efficiency and performance of companies is a complex and multidimensional issue. For this reason, numerous conflicts and contradictions among people and groups can be expected such as contradictions of owners and managers, stockholders and creditors, legal and real, internal and external stockholders and so on. However, one of the most important dimensions of representation theory is the divergence of managers and stockholders which is the main subject of various researches in this context. According to experts, stockholders must always monitor managers effectively and exactly and try to prevent non-conformity on goals and deviations of managers' attempts. In recent years, institutional ownership shows significant growth in Europe and Us stock markets. In Iran, we observe presence of organizations and institutions with the title of institutional investment which include insurance institutions such as social support, retirement cashes, commercial insurance companies and also investment organizations and public and semipublic divisions. In present work, we try to answer the question that whether institutional ownership affects company value.

Importance of the Problem

For relationship between ownership structure and cash value, there are two hypotheses:

1. Transactions hypothesis: which is assumed that cash value of the company shares increases with collection of market investments. Average expenditures of the transactions depend upon the numbers of stockholders. When the ownership structure is centralized, free floating shares will be limited, less transaction are done and therefore, cash value decreases.

2. Hypothesis of wrong selection: which supposes that ownership concentration is potentially expensive since block stockholders may have private information regarding company value and in response to the possibility of conscious transaction, cash suppliers may increase the suggested price difference.

Institutional ownership can solve agency problems due to potential of benefiting from economic savings and versatility. Therefore, it seems that institutional owners, as stockholders of the company, demonstrate the problem as well as solutions. Their presence as stockholder leads to separation of ownership and control, while their increasing involvement in companies and ownership centralization is a way for monitoring company management. In cases of lack of executive managers in company management board and institutional ownership, managers have less chance or interfering accounting numbers in a suitable form and this is due to presence of external managers and institutional owners who can serve as an efficient supervisor for them.

MATERIALS AND METHODS

Research Goal

Investigation of the effect of institutional ownership on value of companies admitted in Tehran stock market

Research Question

Is there any meaningful relationship between institutional ownership and the value of companies admitted to Tehran stock market?

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Research Hypothesis

There is a meaningful relationship between institutional ownership and the value of companies admitted to Tehran stock market.

Conceptual and Operational Definitions of Variables

Institutional Ownership

Institutional owners cover banks, insurance companies, retirement cashes, investment companies and other institutions which transact a great deal of exchange papers (Norawesh *et al.,* 2009) and by means of a high level of authority in companies societies, affect directly managerial decisions of investment companies.

$$\text{In own} = \frac{\text{Institutional Equity}}{\text{Tot Equity}}$$

Company Value

Valuation represents the effect of strategy and financial structure on market value of companies' shares. Company value is of great importance for stockholders, managers, creditors and other beneficiaries in their evaluation from the company future and its effect on risk assessment and investment return and shares price.

$$Q = \frac{M_{ve} + B_{vd}}{B_{va}}$$

Methodology

Recent work is an applied research with respect to the goal or result. This research is an accounting proof work which is based on the information of companies admitted in Tehran stock market. Using balance sheets of companies, data will be collected. Recent work is a descriptive and survey research from correlative type.

Research Variables

Independent Variable

Independent variable of the work is institutional ownership whose effect on dependent variable of company equity return will be investigated.

Dependent Variable

Dependent variable of research is the value of companies admitted in Tehran stock market.

Control Variable

Company size, sales growth, financial leverage, ratio of stock market value to official one and systematic risk are considered as control variables of the research.

Data Collection Tools

Tools for collecting required data is CDs containing information of stock markets, published financial reports of companies admitted to stock market together with official website of Tehran stock market, articles and magazines. After collecting required information, they will be analyzed by means of Eviews 8.

Statistical Community

Since this research is carried out for companies which are admitted to Tehran stock market and are separated in accordance with industry for the period of 2006-13, statistical community of the work is selected as follows:

319 companies in various industries were recognized which must have the following conditions:

1. Industries in which the number of companies includes 5% of all stock market companies.
2. Shares exchange is being performed continually in Tehran stock market and transaction holding doesn't occur for more than a period.
3. Their information is publicly accessible.
4. Their financial year ends in March.

Based on the above conditions, about 79 companies of Tehran stock market were selected.

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RESULTS AND DISCUSSION
To analyze data, Eviews 8 was used. In fact, the purpose of research is to fit a linear regression model based on least squares to data. In this work, the variable of company value is considered as dependent variable and institutional ownership as independent one. Moreover, company size, sales growth, financial leverage, ratio of stock market value to official one and systematic risk are considered as control variables of the research. The aim of the research is to investigate the effect of independent and control variables on dependent variables. To enter research data in Eviews 8, we use data panel method. As we know, data panel set includes observations of various divisions such as family, business and so on which are collected in various time periods. In general, it can be said that the benefit of using table data compared to time series and timely data is that table data provide more diversity as well as less parallelism between variables time series has usually parallelism while in table data, timely aspect of data increases variability and diversity of the data and by having them in hand, more valid estimations can be performed. Furthermore, this method makes recognition and measurement of the effects possible while they aren't easily understandable by means of statistical timely methods or time series.

According to definition of panel data and also model of research data, we can use data panel for entering data into Eviews 8 software.

In this work, totally 79 companies admitted to Tehran stock market were studied whose data was collected for the period of 2006-13.

Kolmogorov – Smirnov Test for Dependent Variable
One of the basic assumptions for linear regression normality of the dependent variable. To investigate normality of the variable, we use Kolmogorov – Smirnov test. Null hypothesis of the test is the normality and alternate hypothesis is abnormality of the data. Since company value is dependent variable of the research, we present results of Kolmogorov – Smirnov test.

Kolmogorov – Smirnov Test for Dependent Variable of Company Value
In what follows, output of the software for Kolmogorov – Smirnov test will be presented:

Table 1: Normality test to the variable of company value

Company value variable (Q)	Test statistic	No	Sig.
Kolmogorov test	7.327	395	0.453
Shapiro – Wilk test	6.315	395	0.457

As can be seen, the level of meaningfulness of Kolmogorov – Smirnov and Shapiro – Wilk tests is obtained as much as 0.05 and we conclude that null hypothesis cannot be rejected. In other words, variable of company value is normal.

Test of Unit Root and Accumulation
If we want that results of the estimations are not virtual, it must:
1. All dependent and independent variables are conservative in level or
2. If at least one of the variables is not conservative, all variables must be same sum.

To assess conservatism of variables, we use unit root test. Decision making rule of this test is that null hypothesis of the test is unit root and alternate one is lack of this root. We performed the test for 7 variables of the work and following results were obtained:

Table 2: Test of unit root

Variables	Test L & CH
CAAR	0.0000
Q	0.0000
SIZE	0.0000
GROW	0.0000
LEV	0.0000
MTB	0.0000

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As can be seen, the level of meaningfulness of the unit root test for all variables is less than 0.05. Therefore, null hypothesis of unit root test is rejected and we conclude that all variables are conservative in 0.05 level.

Regression

In this section, using multivariate regression, we determine the regression model. Simple linear regression depends upon meaningfulness of the correlation factor. However, availability of the multivariate linear regression is not related to meaningfulness of correlation factor. Basic presumptions of the multivariate linear regression are lack of self-correlation of dependent variable, co-linearity of independent variables, lack of non-conservatism of variables and independence of errors.

Durbin – Watson Test

One of the assumptions which is used in regression is the independence of errors (difference of real and estimated values of regression model) from each other. If the hypothesis of independence of errors is rejected and errors are interrelated, it is not possible to use regression model. To determine the independence of errors, Durbin – Watson test will be used. If statistic of the test is in the interval of 1.5 or 2.5, null hypothesis is accepted, otherwise, it will be rejected and it means that there is correlation between errors.

In the section of testing regression assumptions, we assess Durbin – Watson test.

Hypothesis Test

This research has a hypothesis and regression test is used for its testing:

There is a meaningful relationship between institutional ownership and value of companies admitted in Tehran stock market.

Statistical hypothesis as null and alternate are as follows:

H_0: there is no meaningful relationship between institutional ownership and value of companies admitted to Tehran stock market.

H_1: there is a meaningful relationship between institutional ownership and value of companies admitted to Tehran stock market.

Hypothesis Regression Model

Value = $\beta_0 + \beta_1 \times$ instit. Own. $+\beta_2 \times$ size + $\beta_3 \times$ sales growth+ $\beta_4 \times$ leverage + $\beta_5 \times$ market value +ϵ

In above model, value of companies is considered as dependent variable of the research and institutional ownership as independent one. Moreover, company size, sales growth, financial leverage, ratio of stock market value to official one and systematic risk are considered as control variables of the research. β_0 is constant of the regression equation and β_{1-5} as independent and control variables which imply the effect of these variables on dependent variable and the goal of regression analysis is to estimate them.

As you know, in model of data panel, there are two important concepts namely pooled and panel which imply to certain assumptions which can be used for estimation of a model having combined data (data panel). However, which of them is suitable for analysis of combined data depends upon the number of studied companies and years. Usually, when the number of years is less than that of companies, panel structure is used. Note that in using panel structure, we have constant effects and random ones. Of course, tests such as Limier and Haussmann which can be applied for assessment of model selection in an exact manner and in what follows, for the first hypothesis of the research, we use these tests.

Limier Test for Comparison of the Pattern Combined Constant Effects for Research Hypothesis

Decision making rule for Limier test is as follows:

H_0= combined pattern

H_1=constant effects pattern

In what follows, results of Limier test are summarized in table.

Limier Test for Research Hypothesis

Table 3: Limier test

Test	Test statistic	N	Sig
Limier Test	237,444	4	0.000

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As can be observed, the value of test statistic is 237,444 and meaningfulness level of the test is 0.000 less than 0.05. Therefore, null hypothesis of the Limier test id rejected in 5% level and with 95% certainty. Consequently, appropriate pattern for investigated model is panel not combined.

Now, pattern of constant effects must be compared with that of random effects. To do so, we use Haussmann test.

Haussmann Test for Comparison of Constant Effects with Random Effects for Research Hypothesis

Decision making rule for Haussmann test is as follows:

H_0= random effects model

H_1=constant effects model

In what follows, results of Haussmann test are summarized in table.

Haussmann Test for Research Hypothesis

Table 4: Haussmann test

Test	K^2 Test statistic	No	Sig
Haussmann Test	29,427,625	5	0.000

As can be observed, the value of Haussmann test statistic is 29,427,625 and meaningfulness level of the test is 0.000 less than 0.05. Therefore, null hypothesis of the Haussmann test id rejected in 5% level and with 95% certainty. Consequently, appropriate pattern for investigated model is constant effects pattern. In what follows, results of estimation of model using constant effects pattern are presented.

Regression Results for Research Hypothesis

Table 5: Regression results

	Coefficients estimation	Statistict	Sig
Regression constant	1.08762	2.31750	0.000
Institutional ownership	1.013923	2.155510	0.0367
Company size	-0.053074	-0.74154	0.0582
Sales growth	1.03095	0.803730	0.0221
Financial leverage	2.03272	0.344722	0.0305
Market value	-1.04911	-0.98293	0.0263
determination =0.4553 factor	StatisticF = 36.6473	Sig =0.000	Durbin – =1.9345 Watson

Now, we study the above table.

As can be seen, the value of regression test statistic is 36.6473 and its meaningfulness level is 0.000 less than 0.05. Therefore, null hypothesis of the regression test based on meaninglessness of the above test is rejected and regression test is meaningful in 0.05 level. Also, determination factor is 0.4553 which shows that independent and control variables determine about 0.46 of changes of dependent variable. Value of Durbin – Watson test statistic is about 1.9345 which is between 1.5 and 2.5 and means that there is no correlation between error terms. Now, based on obtained values for meaningfulness level of research variables, we can write the fitted model as follows:

Value = 1.08762 + 1.013923 × I.O+ 1.03095× S.G +2.03272 × F.L - 1.04911×M.V

Conclusion

As can be seen, research independent variable, institutional ownership, statistically affects dependent variable, value of companies admitted to Tehran stock market, so that for a unit increase in institutional ownership, value of company increases by 1.08762 unit and this relationship is positive. Therefore, we conclude that there is a positive and meaningful relationship between institutional ownership and value of such companies.

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