

The Impact of Institutional Ownership on the Value and Risk of Unsystematic Firms

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Abstract

The present research was aimed to examine the effect of institutional ownership on the value and risk of unsystematic firms during 2009 to 2016. The statistical society was comprised of 115 listed firms on the Tehran Stock Exchange (TSE). The inferential statistics was utilized to analyze the collected data, the Tehran Stock Exchange data were collected in the Rahavard-e- Novin software. Given the data and by use of Excel-2007 software, research variables provided and then the final analysis has done using 7th and 19th versions of Eviews and SPSS software, respectively. To assess the linear correlation of variables, the Pearson coefficient of correlation (for normal distributions) and Spearman (for abnormal distributions) were utilized. Results demonstrated that the institutional investment has an impact on the value and risk of unsystematic firms on the Tehran Stock Exchange (TSE).

Key words: Institutional ownership, firm value, firm risk

Introduction

Since stockholders supply capital for firms, so they are considered as one of the most important actors in the corporate strategic principle system, therefore, maintaining their reliance is of paramount importance. Stockholders are chosen by the board of directors and indirectly play roles in the firm's decisions and given that institutional and substantial stockholders are able to choose one or more board members so they seem to work out perfectly to reduce agency costs. In a good corporate strategic principle system manager accounts for the board of directors and the board of directors is responsible for stockholders and other beneficiaries. The institutional ownership is the percentage of guarded stock by pension funds, banks, insurance companies, social security organization, investment companies and the Islamic public foundations and institutions.

Institutional stockholders who are expert investors can play a leading role to control over managers. Obtaining equity interest and supervision by institutional and substantial stockholders are two methods to reduce agency problems and to increase the foundation value. Cornett et al (2007), believes having more stocks is one of more effective factors believes that carrying more stock is an

important factor for more effective monitoring of institutional investors on companies. when institutional investors have more stock, their motivation, resources, opportunities and ability to monitor managers will increase (elyasiani and Jia, 2010), because in one hand, they could have a significant influence over the company's management, and on the other hand they would align shareholders interest, which is originated from monitoring activities who investors do (Vellori et al., 2006).

When managers acquire full ownership, it will align their interest with shareholders interest, whereby, managers will have necessary motivation to do activities that will maximize the value. The presence of major shareholders can increase or improve the monitoring and therefore, it leads to better performance of the institution. Many studies have assessed that increasing the number of large and major shareholders, will cause to limit agency problems and they have adequate motivation to monitor managers. According to above, the present research was aimed to exam the impact of institutional ownership on the value and risk of unsystematic companies on listed firms in the Tehran stock exchange.

Research literature

Ownership structure of the company

According to research were done by Kumar (2003) and Namazi and Kermani (2008), shareholders combination is measured through for variables such as foreign ownership, corporate ownership, managerial ownership and institutional ownership.

Foreign ownership

Foreign ownership equals the percentage of whole company's share which is held by foreigners, including foreign partners, foreign financial institutions, foreign nationalities and Iranian nonresidents. This variable in studies have conducted by Kumar (2003), Arnhart and Lyzal (2006) and Namazi and Kermani (2008) was used by the same definition. Due to lack of major foreign ownership in understudied companies and therefore, impossibility to provide a valid schema about this kind of ownership, no test has been conducted equivalent to Namazi and Kermani research (2008) and so there is no notion.

Corporate ownership

Corporate ownership is equivalent to the percentage of the whole capital share that is held by components of stock companies that is comprised of any kind of stock company, except does mentioned before. In researches have done by Kumar (2003), Arnhart and Lyzal (2006) as well as Namazi and Kermani (2008) this variable used also by the same definition.

Management ownership

This kind of ownership expresses the percentage of the share which is held by family members of the board. In studies have done by Kumar (2003), as well Namazi and Kermani (2008) this variable used also by the same definition. Management ownership may be effectual to reduce free cash flows and to converge interests between managers and shareholders; therefore, management ownership will lead to divide higher profit (Basiliko, 2013, 19).

Institutional ownership

Institutional ownership is equivalent to the percentage of the share from the whole capital share which is held by public companies such as insurance companies, financial institutions, banks, public companies and other parts of the government. In researches have done by Kumar (2003), Arnhart and Lyzal (2006) as well as Namazi and Kermani (2008) this variable used by the same definition.

Company value

Determining the firm value and identifying effectual factors in capital markets always have been considered as challenging issues for investors and financial analysts. They always have sought to identify effective factors on the firm value to determine the value of the company through controlling these factors.

Company size

As a whole the company size means the volume and activity level of a company. So, main points to measure the company size are factors which are used as a scale and criteria, whereby companies are sorted according to their size and volume precisely. Hence, a criterion to measure company size is an important issue to explain its size. Researchers in their studies have utilized various indicators to measure the company size, including asset value (Zaheri, 2006), sale position and assets (Pourheydari, 1995) and so on.

Risk

Risk is defined as the difference between the real investment return and expected return. Most of investors believe that the real return is less than expected return. So, the more yield fragmentation is, the more will be the risk.

Disk dimensions

If we consider the risk as a phenomenon, it can be assess from various aspects:

Productive and non-productive risks; Productive risk means a risk that involves added value, while non-productive risk is without added value. Investment in mine exploration projects is comprised of an economic risk; while participating in gambling which could also jeopardize property in hope for achieving more wealth is considered as a non-productive risk.

Controllable and uncontrollable risk

A controllable risk can be control or affected by the decision-maker, while the decision-maker has no control over an uncontrollable. The controllable and uncontrollable risks are called reflexive and fortune risk, respectively. For example, the car owner can cover themselves by observing some safety points such as using a burglar alarm for car; but the risk will be uncontrollable if their car is stolen even by observing safety points.

Financial and non-financial risks

A financial risk means to risk in finance, while a non-financial risk means to accept life, social and security hazards.

The risk of loss and profit

This kind of risk can divide risk into two categories of real (net) risk and speculative (winning or losing) risk. Whereby, the real risk is always comprise of loss (for example, in car ownership that in the event of an accident, is damaged and otherwise, its situation is unchanged) and speculative risks, involves profits and losses (a showpiece is ownership of a factory or a company). In other words, risk can embrace both loss aspects (negative risk) and profit aspects (positive risk). (Akbarian,2003)

Financial leverage

Studies define the financial leverage as a debt rate for supplying necessary financial resources to achieve property requirements. According to this definition, in terms of financing, firms are classified by upper and lower leverage rate. Desai (2009) believes that, the financial leverage has the capability to change risk and yield of firms. So, the capital structure of every firm has a mutual and close relationship with its financial leverage. Consequently, if firms want to use different financing methods, it is depends on the existence of situation and suitable variables that sometimes are created based on the situation and firms orientation towards the market and also their evaluation by financing institutions. But necessity of considering the agency theory is that, the stock objectors, owners, operators and shareholders have an influence on decision making about equity and investment.

Research targets

- To assess the impact of the institutional ownership on the value and risk of **unsystematic firms** on listed firms in the Tehran Stock Exchange.
- To assess the impact of institutional investors on the value of **unsystematic firms** in the Tehran Stock Exchange.
- To assess the impact of institutional investors on the risk of **unsystematic firms** in the Tehran Stock Exchange.

Research method

To analyze the data, the combined data method (cross-sectional and time-series) was utilized based on regression models. Firms' data was extracted using data software in the stock exchange field as well as the stock exchange website. Then data were prepared in excel software and the Eviews software equally was used to provide research hypotheses and regression tests. Viability tests of variables such as Hausman, limer, F and t tests are among the most important ones in this study.

Data analysis

Result of Jarque-Bera test for the dependent variable was shown in table 1.

Table1. Normality test results of the dependent variable distribution.

variable	symbol	Jarque-Bera statistics	Importance level
Firm's value	Q _{tobin}	55.357	0.0000
risk	RISK	63/773	0.0000

Given the importance level in the Jarque-Bera statistics is less than 0.05 (0.000), so, the hypothesis based on abnormality of the dependent variable distribution at 95% confidence level is approved and it expresses that the dependent variable lacked normal distribution. Therefore, before testing the hypothesis the mentioned variable should be normalized. Consequently, this variable using the Jonson transform function and the Box Coax function has been normalized. Results of the Jarque-Bera statistics after data normalizing process are as table 2.

Table 2. Test results related to the normality of the dependent variable distribution after the normalizing process

variable	symbol	Jarque-Bera statistics	Importance level
Firm's value	Q _{tobin}	2.749	0.252
risk	RISK	3.390	0.183

Correlation test between research variables

Here, using the Pearson correlation coefficient, the relationship between research variables and the present correlation between them is addressed. The correlation coefficients matrix between research variables was shown in table 3.

Table 3. The Pearson correlation test between variables

Correlation					
Probability	Q _{tobin}	RISK	INST	LEV	SIZE
Q _{tobin}	1				

RISK	-0.249	1			
	0.000	-----			
INST	0.144	0.612	1		
	0.0006	0.000	-----		
LEV	0.1006	0.024	0.173	1	
	0.017	0.569	0/000	-----	
SIZE	-0.0061	-0.0069	0.194	0.142	1
	0.885	0.869	0.000	0.0007	-----

The collinearity means the existence of a linear relation between explanatory and independent variables. Assessing the correlation between independent variables is a method to identify the collinearity or lack of collinearity. If there is not an intense correlation between independent variables, the collinearity will not happen. In the present research, the collinearity relationship between independent variables using the Pearson correlation coefficient has been done. According to table 3, the correlation between variables which enter to research models simultaneously was medium or weak and there is not a strong relationship between them. So, concurrent arrival of independent variables in research models will not cause to create a strong collinearity.

Testing the first hypothesis

Institutional investors have an influence on the value of unsystematic firms in the Tehran stock exchange.

$$Qtobin_{it} = \beta_0 + \beta_1 INST_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \varepsilon_{it}$$

In this model, the F-limer test was utilized to specify whether using the panel data method to evaluate will be efficient or not, and to specify which method (fixed effects or random effects) is more appropriate to evaluate the Hausman test was used. Achieved results are available in table 4.

Table 4: results of selecting a schema to evaluate the first hypothesis test model of the research

Test type	Test statistics	The amount of test statistics	Freedom degree	p-value	result
F-limer test	F	8.6011	(438.114)	0.0000	panel
Hausman test	χ^2	31.960	6	0.000	Fixed effects

Given F-limer test results, since p-value is less than 0.05 (0.0000) in this research, the variance of intercepts are approved and to evaluate the model the panel data method is required to use. Equally, according to Hausman test results, in as much as p-value is less than 0.05 in this research (0.000), so the model should be evaluate by using the fixed effects method. In table 5, results of evaluating the model as well as results of statistics and the classic regression data have been provided.

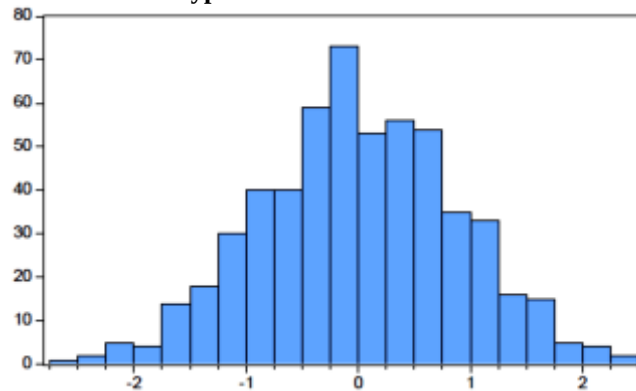
Table 5: results of evaluating the first hypothesis test model

dependent variable: value, number of observations: 559 year- company				
variable	coefficient	t-statistics	VIF	P-Value
C	0.244	3.168	0.001	1.077
INST	0.075	2.571	0.0105	1.049
SIZE	0.005	1.488	0.137	1.184
LEVERAGE	0.004	1.692	0.091	1.137
adjusted coefficient of determination : 0.7115				
F- statistic (p-value)	9.003 (0.0000)	Jarque-Bera statistics 0.987 (0.610)		
Breusch-Pagan (p-value)	1.712 (0.078)	Durbin-Watson statistics (p-value) (2.447)		

To assess whether the model is meaningful, given that the probability of the F-statistics is less than 0.05 (0.0000), it is approved that the whole model at 95% confidence level is meaningful. The coefficient of determination in this model also expresses that 71.15% of changes in the dependent

variable are specified by entered independent variables in the model. By assessing data statistics of the model, Jarque-Bera statistics results imply that residuals of evaluating the research model have an abnormal distribution at 95% confidence level, so, the test probability is more than 0.05 (0.610).

Fig. 1. The distribution of the first hypothesis research test model residuals



In the case of the residual independence test, also, the amount of Durbin-Watson statistics lies between 1.5 and 2.5 (2.447), whereby, the residual independence is accepted. The Breusch-Pagan statistics was also used to test the similarity of residual independence variance. According to the research results and the p-values of the F-statistics (0.0784) which is more than 0.05, the null hypothesis based on the similarity of residual independence variance is approved at 95% confidence level and shows the similarity of residual independence variance. Equally, in assessing variables collinearity, VIF statistics results are as follow. Given achieved results, the VIF indicator for all variables is less than 5, consequently, the lack of collinearity between research model variables is approved.

Testing the second hypothesis

Institutional investors have an influence on the risk of unsystematic firms in the Tehran stock exchange.

$$RISK_{it} = \beta_0 + \beta_1 INST_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \varepsilon_{it}$$

In the present model, the F-limer test was utilized to specify whether using the panel data method to evaluate will be efficient or not, and to specify which method (fixed effects or random effects) is more appropriate to evaluate the Hausman test was used. Achieved results are available in table 6.

Table 6: results of selecting a schema to evaluate the second hypothesis test model of the research

Test type	Test statistics	The amount of test statistics	Freedom degree	p-value	result
F-limer test	F	3.808	(438.114)	0.0000	panel
Hausman test	χ^2	21.768	6	0.0013	Fixed effects

Given F-limer test results, since p-value is less than 0.05 (0.0000) in this research, the variance of intercepts are approved and to evaluate the model the panel data method is required to use. Equally, according to Hausman test results, in as much as p-value is less than 0.05 in this research, so the model should be evaluate by using the fixed effect method. In table 7, results of evaluating the model as well as results of statistics and the classic regression data have been provided.

Table 7: results of evaluating the second hypothesis test model

dependent variable: Risk, number of observations: 559 year- company				
variable	coefficient	t-statistics	VIF	P-Value
C	0.176	2.293	0.022	-
INST	0.049	2.147	0.032	1.543
SIZE	1.005	1.008	0.313	1.340
LEVERAGE	0.051	2.0002	0.046	1.379
adjusted coefficient of determination : 0.5547				
F- statistic (p-value)	4.547 (0.0000)	Jarque-Bera statistics (p-value) (0.475)		
Breusch-Pagan (p-value)	1.121 (0.112)	Durbin-Watson statistics (p-value) (2.471)		

To assess whether the model is meaningful, given that the probability of the F-statistics is less than 0.05 (0.0000), it is approved that the whole model at 95% confidence level is meaningful. The coefficient of determination in this model also expresses that 55.47% of changes in the dependent variable are specified by entered independent variables in the model. By assessing data statistics of the model, Jarque-Bera statistics results imply that residuals of evaluating the research model have an abnormal distribution at 95% confidence level, whereby, the test probability is more than 0.05 (0.4753). In the case of the residual independence test, also, the amount of Durbin-Watson statistics lies between 1.5 and 2.5 (2.47), thereupon, the residual independence is accepted. The Breusch-Pagan statistics was also used to test the similarity of residual independence variance. According to the research results and the p-values of the F-statistics (0.1127) which is more than 0.05, the null hypothesis based on the similarity of residual independence variance is approved at 95% confidence level and shows the similarity of residual independence variance.

Conclusions

Given the presented results in the estimated table of the model 1, the probability of the t-statistics for INST variable which is representative of the institutional investors was less than 0.05 (0.015) and its coefficient was positive (0.0751), so it can be said that institutional investors have an influence on the value of unsystematic firms in the Tehran stock exchange. Consequently, the first hypothesis has been approved at 95% confidence level. According to the presented results in the estimated table of the model 2, the probability of the t-statistics for INST variable which is representative of the institutional investors was less than 0.05 (0.0323) and its coefficient was positive (0.0491), so it can be said that institutional investors have an influence on the risk of unsystematic firms in the Tehran stock exchange. Hence, the second hypothesis has also been approved in 95% confidence level.

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