

Investigating the Effect of Institutional Ownership on the Value and Risk of Variability Companies Listed on the Tehran Stock Exchange

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Abstract

In this article, the impact of institutional ownership on the value and risk of variability companies during the period of 2009-2016 was investigated. For this purpose, 115 companies listed on Tehran Stock Exchange was determined during the period. To test the research hypothesis, analysis of consolidated / hybrid regression has been used in Eviews software. The research findings show that institutional investors value have a significant positive impact on companies in Tehran Stock Exchange and also institutional investors have an impact on risk of variability corporate in Tehran Stock Exchange.

Keywords: company's value, company's risk, institutional ownership, firm size, financial leverage.

Introduction

Coronet et al (2007) knew the ownership of the more shares as a more effective monitoring of institutional investors on companies. Institutional investors with more stocks have the motivation, resources, opportunities and the ability to monitor benefit managers (Elyasyani and Jia, 2010); Because they could have significant influence on company's management and can also align interests of shareholders which stem from surveillance activities that investors doing, (Vellore et al. 2006).

The majority ownership right by managers aligns their interests with the interests of shareholders so that management has the necessary incentives for maximizing activities of value. There are major shareholders can also monitor the increase or improve it and therefore leads to better performance of the firm. It's a lot of research that enhances the major and large shareholders lead to limit the problems of representation and they have been examined their incentives to monitor managers. Chang and Zhang (2009) concluded that the presence of institutional investors cause to increase the quality of their ownership structural and governance and although improving quality and act as reducing trustee agency and costs in the company. Yu (2006) achieved evidence that firms with larger institutional

ownership were less than profit management. Natural logarithm of the value ratio of the market value of equity to book value of equity as a measure of corporate value has been used in recent studies (Lindsay, 2003).

In fact, the ratio of market value compares to book value indicating that whether the securities with a market value of outstanding shares divided by book value of equity is more or less priced. If the ratio is more than (less than) one. So the company valued more (less).

For the current study, the ratio of market value to book value is measured in the following manner. The market value of equity obtained from multiplied by a number of shares outstanding at the end of the fiscal year of company by the annual report obtained from the average stock price for six months after the end of the fiscal year, in order to ensure the price have reflected the accounting information disclosed in the annual report.

Book value of equity is a book value at the end of the fiscal year. Since the asset size and profitability, leverage and high skewness and kurtosis indicate growth to mitigate the impact of outlier values and distribution of these values closer to a normal distribution, a logarithmic transformation was applied. According to the above, the aim of this study was to evaluate the effect of institutional ownership on risk and value of variability companies in companies listed on the Tehran Stock Exchange.

Review of the literature

Institutional ownership

Shareholders, especially institutional investors in corporate governance, play an important role. Institutional investors can interact with company management monitor and influence on company management can be a basis to align the interests of management with the interests of shareholders is to maximize shareholders' wealth. Institutional owners in corporate governance held by the equity have a key rule. Company's owners (shareholders) have different rights, including the rights of electing the Board of Directors that activate as a representative to monitor the performance of managers. On the other hand, major shareholders are a considerable role in the transmission of information to other shareholders. They can acquire private information from the management and transfer this information to others (Najjar and Taylor, 2008).

Institutional ownership is equal to a percentage of total shares held by state companies and public capital that the companies include insurance companies, financial institutions, banks, government and other parts of the state. This variable in Kumar's research (2003), Aaron Hart and Lyzal (2006) and Namazi and Kermani (2008) also used the same definition. Yan Pangh (2011) in his research as a combination of institutional investors and the quality of accruals, investigating the relationship between institutional shareholders and accrual quality. He has assumed in his research that companies with a large number of short-term institutional ownership have accruals with poor quality and firms with long-accrual have a large number of institutional investors with good quality. The results of his study showed a negative correlation with accruals quality of short-term institutional investors and positive relationship with long-term institutional shareholders.

Bhattacharya and colleagues (2006) examined the relationship between institutional ownership and performance of the company's stock in this study, unlike most previous research, institutional investors are not considered as an integrated group and they are divided into different classes. The results of this study indicate two-way feedback between company's performance and institutional ownership of stock.

The value of the company

Natural logarithm of the ratio of the market value of equity to book value of equity (MTBR) has been used as a measure of corporate value in recent studies (Linz, 2003). In fact, the ratio of market value to book value (MTBR) shows that the field of securities with a market value of outstanding shares divided by book value of equity, priced with more or fewer stocks. If the ratio is more than (less than) one. So company valued more (less).

Risk

The risk is a lack of confidence in the future that have the ability to calculate (Venus and Goudarzi, 2003). If the amount of uncertainty about the future cannot be calculated, it is not the risk, but only it is uncertainty; therefore due to calculating the amount of uncertainty in the form of risk can be managed and controlled. The risk is defined as the first two characters in the Chinese language that the first is means risk and the second is the concept of opportunity. (Raie, 2008.)

Financial risk means the risk of using debt to finance its assets. Using the financial fixed costs makes that shareholders' earnings of per share, show the profit and loss over stated that is said financial leverage. Because of the risk of failing to repay principal and interest of debt and bankruptcy which can be a result of debt, variability in company's returns increased due to financial leverage. The same issue applies to the operating leverage which means a change in operating profit is a result of changes in sales volume, as well. If conditions being same, the greater the operating leverage increases the volatility in equity returns.

Tarek and his colleagues (2008), in connection with the stimulus capital structure and systemic risk classes were asymmetric in Egypt research firms and companies in terms of systemic risk into three categories: high-risk, medium and low risk, this study was conducted 99 Egyptian companies during the period from 1998 to 2004 during the 7 years. The results showed that the factors of size, profitability, the cost of representation, opportunities for growth, interest rate, and liquidity assets with long-term debt is inverse relationship, and all these factors, except for short-term liquidity of assets and liabilities has a significant positive correlation and liquidity assets with short-term debt has an inverse relationship.

Research hypothesis

- Institutional ownership has impact on the on business value and risk of variability in companies listed on the Tehran Stock Exchange
- Institutional investors have the impact on the value of variability companies in Tehran Stock Exchange.
- Institutional investors have impact on corporate risk of variability in Tehran Stock Exchange.

Data analysis method

To analyze the data, descriptive and inferential statistics are used simultaneously. According to the survey, 115 companies are eligible for the period 2008 to 2014 and were investigated. Data related to Tehran Stock Exchange were collected in Rahavard Novin application. Using the software Excel-2007 variables from the raw data were prepared and then by using the software Eviews 7 and spss version 19, the final analyzing has been conducted. The final analysis was performed. Variable can be used to study the relationship between Pearson correlation coefficient (normal distribution) and Spearman (abnormal distribution) can be used.

Data analysis

The first hypothesis

H0: Institutional investors has not impact on the company's value of the variability in Tehran Stock Exchange.

H1: Institutional investor value of companies is the impact of variability in Tehran Stock Exchange. According to the results presented in estimated table model (1) of the study, the possibility of t-statistic for INST variable that is indicative of institutional investors was smaller than 0.05 (0.0105) and its coefficient is positive (0.0751), as a result, institutional investors value companies has the impact of company's variability in Tehran Stock Exchange. Hence, the first hypothesis of the first research is rejected at the 95% confidence level and thus H0 rejected and H1 approved.

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

In this model, in order to determine whether the use of panel data estimation method will be effective or no, the F-Limer was used and in order to determine which method (fixed effects or random effects) is more appropriate to estimate, Hausman's test was used.

The results of this test represented in Table 1.

Table 1: Results of model choosing to estimate the first hypothesis test

Test type	Test statistic	Value of test statistic	Freedom degree	P-Value	result
Limer's F test	F	8/6011	(438*114)	0/0000	panel
Hausman's test	χ^2	31/960	6	0/000	Stable effect

According to the results of the F-Limer test, since the P-Value of the test is less than 0.05 (0.0000), the width of the source confirmed anisotropy and it is required to use in estimating the models and data panels. Also according to Hausman's test, since the P-Value of the test is also less than 0.05 (0.000), so the model must be estimated by using fixed effects. In Table (2), the results of the model, as well as the results of circumstantial evidence and assumptions of the classical regression, were presented.

In examining the significance of the model according to the probability of F statistics are smaller than 0.05 (0.000) and confirmed with 95% significance confidence of the model .

Determining model suggests that 71.15% of the variance in the dependent variable is explained by the independent variables in the model. In reviewing the statistical assumptions of the model, Jarkio-Bera's test results showed that residue from model to study the normal distribution is 95% of the probability of this test so that it is larger than 0.05 (0.610).

Table 2: results of estimation model of the research hypothesis

The dependent variable: observations of the number of company's value: 559 years - firm				
Variable	index	T statistic	P-Value	VIF
C	0/244	3/168	0/001	1/077
INST	0/075	2/571	0/0105	1/049
LEV	0/005	1/488	0/137	1/184
SIZE	0/004	1/692	0/091	1/137
Adjusted index of the model: 0.7115				
F statistic of the model)P-Value(	9/003 (0/0000)	Statistic Jarque-Bera)P-Value(	0/987 (0/610)	
Breusch-Pagan's statistic)P-Value(	1/712 (0/078)	Durbin-Watson's statistic	2/447	

Also, in connection with the remaining independent test, Durbin-Watson statistic value is between 1.5 and 2.5 (2.447); so the independence of residuals is accepted. For consistency test of the remaining variance, Bricsh -Pagan method was used. According to the results of the test and P-Value of F statistic (0.0784) which is more than 0.05, the null hypothesis at 95% consistency residual variance has been approved and show consistency in the review of the residual variance is also variable, VIF test results are as the following tables. Based on the obtained results, VIF index for all variables is less than 5, so the lack of multicollinearity between the variables of the model was confirmed.

The second hypothesis

H0: Institutional investors has no effect on the company's risk of variability in Tehran Stock Exchange.

H1: Institutional investors has an impact on corporate risk of variability in Tehran Stock Exchange. According to the results presented in estimated model table (2) of the study, the possibility of t-statistic for INST variable that is indicative of institutional investors was smaller than 0.05 (0.0323) and its coefficient is positive (0.0491); As a result, it can be said institutional investors has impact on corporate risk of variability in Tehran stock exchange. Since the second hypothesis is rejected at the 95% confidence level and thus H0 rejected and H1 was approved.

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

Table 3: Results of model choosing for estimating model of the second hypothesis test

Test type	Test statistic	Value of test statistic	Freedom degree	P-Value	result
Limer's F test	F	3/808	(438*114)	0/0000	panel
Hausman's test	χ^2	21/768	6	0/0013	Stable effect

According to the results of Limer's F test, since the P-Value of the test is less than 0.05 (0.0000), the width of the source confirmed anisotropy is required in estimating the models and data panels. Also according to Hausman's test, since the P-Value of the test is also less than 0.05 (0.001), so the model must be estimated by using fixed effects. In Table 4, the results of the model, as well as the results of circumstantial evidence and assumptions of the classical regression, were presented.

Table 4: model estimation results of the second research hypotheses test

The dependent variable: observations of the number of company's value: 559 years - firm				
Variable	index	T statistic	P-Value	VIF
C	0/176	2/293	0/022	-
INST	0/049	2/147	0/032	1/543
LEV	1/005	1/008	0/313	1/340
SIZE	0/051	2/0002	0/046	1/379
Adjusted index of the model: 0.5547				
F statistic of the model	4/547	Jarque-Bera's statistic 1/487		
)P-Value(	(0/0000)	)P-Value(0/475)		
Breusch-Pagan's statistic	1/121	2/471		
)P-Value(	(0/112)	Durbin-Watson's statistic		

Due to the significant differences in the model of statistic F is likely smaller than 0.05 (0.000) is verified with 95% significance of the model. Determining model suggests that 55.47% of the variance in the dependent variable is explained by the independent variables in the model. In reviewing the statistical assumptions of the model, the test results to indicate Jarque-Bera that residue of the estimation model is 95% of the normal distribution; so that the probability of this test is larger than 0.05 (0.4753). In connection with the remaining independent test, Durbin-Watson statistic value is between 1.5 and 2.5 (2.47). So the independence of residuals is accepted. The remaining variance consistency test statistic -Pagan method is used. According to the results of the test statistic and P-Value and F statistic(0.1127), which is more than 0.05, the null hypothesis of homogeneity of

variance confirmed the remaining 95% confidence level and represents the residual variance is consistency.

The study also co-linearity variable, VIF test results as the following tables. Based on the results obtained, VIF index for all variables is less than 5, so there is no multicollinearity between the variables of the model is confirmed.

Conclusion

The first hypothesis

According to the results presented in estimated model table (1) of the study, the possibility of t-statistic for INST variable that is indicative of institutional investors was smaller than 0.05 (0.0105) and its coefficient is positive (0.0751); as a result, we can say institutional investors value companies has impact on the variability in Tehran stock exchange. Since the first hypothesis is rejected at the 95% confidence level and thus H0 was rejected and H1 was approved.

The second hypothesis

According to the results presented in Table model (2) of the study, the possibility of t-statistic for INST variable that is indicative of institutional investors was smaller than 0.05 (0.0323) and its coefficient is positive (0.0491) As a result, it can be said institutional investors on corporate risk has the impact of variability in Tehran stock exchange. The second hypothesis is rejected at the 95% confidence level and thus H0 was rejected and H1 was approved.

Recommendations

1. Investors can choose more institutional investors for investigating because of that the companies have more risk and value. Investors can choose to invest because of the company risk and more value.
2. This research can be done by using other variables risk assessment.
3. Stock Exchange can create conditions that legislation on companies to disclose more fully in the company's value reduces information asymmetry and timely disclosure of the information.

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