



The Effect of Institutional Ownership on the Relationship between Risk Appetite and Financial Performance

Sedigheh Nazari¹, MaryamBasati¹, Babak Jamshidinavid^{2*}

¹Departments of Accounting, Ilam Branch, Islamic Azad University, Ilam, Iran

²Departments of Accounting, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

* Corresponding Author

Abstract: *One of the major factors affecting the companies' performance is their risk appetite. Regarding the cost-benefit considerations, institutional ownership can be of great worth to shareholders and affect the company's performance and the exposure of investors to risk. This study aimed to examine the effect of institutional ownership on the relationship between risk appetite and financial performance. To this end, two hypotheses were formulated, in which institutional ownership, risk appetite, and financial performance were assumed as moderator, independent and dependent variables. The statistical population of the study consisted of the companies listed in Tehran Stock Exchange, which were selected based on systematic sampling method. The study sample included 165 companies being listed during 2012 to 2016. The research method of this descriptive survey was causal-correlational in terms of the relationship between variables and applied with regard to the study objective. The regression method and panel data as well as the fixed effect model were used to process and test the hypotheses. The findings for the first hypothesis indicated that there is a positive and significant relationship between risk appetite and financial performance. Concerning the second hypothesis, institutional ownership has a positive and significant impact on the relationship between risk appetite and financial performance at 0.05. It was also found that the control variable of the company's size has a positive and significant relationship with financial performance and that financial leverage was also positively and significantly correlated with financial performance. The shareholders are recommended to pay attention to the ownership structure of companies when deciding to purchase shares since the proper ownership structure improves monitoring the selection of investment options.*

Key Words: *Risk, Financial Performance, Institutional Ownership*

INTRODUCTION

The economy growth and prosperity in each country are dependent upon appropriate investment and planning. Directing cash flows towards proper investments would lead to economic growth, higher gross national product, enhanced employment opportunities, higher per capita income and, ultimately, public welfare. Undoubtedly, the main action to encourage individuals to invest or purchase a company's shares is to improve performance indicators and reduce the company's risk. Meanwhile, there are several factors affecting the performance in companies (Chathoth, et al. 2007). Investors need financial information to make appropriate investments. Financial information plays a major role in explaining the companies' financial status and performance. Therefore, the analysis of the companies' financial performance may provide the ground for investors to adopt optimal decisions. Additionally, the managers' familiarity with the factors affecting the companies' performance would also enable them to make the most appropriate decisions with regard to their subsidiary companies (Arab Salehi, et al. 2012). The desired performance of a company affects the shareholders and creditors' wealth. On the other hand, creating a balance between the company's returns and risk is undoubtedly the most important action to encourage individuals to invest in manufacturing activities or to buy shares in companies. In the capital market, the investors attempt to spend their savings on investments possessing the highest returns. In this regard, they also pay particular attention to risk and they bear risk only in the case of higher returns (Opler, et al. 1994). Risk is defined as

the probability of losing all or part of the profit or capital. In general, the volatility of the return on investment is called risk.

Before the emergence of extremely large-sized companies and during the late eighteenth century, the owners were managers and the managers were owners; however, a new approach, known as stock company, was raised as a social phenomenon following the separation of ownership from management, the emergence of securities markets and professional manager groups. This led to a conflict of interests between managers and owners. The composition of shareholders in different countries may differ; though, the shareholders can play a key role in the company's corporate governance system. Hence, their different compositions in companies can have various impacts on the companies' performance and on how they reflect information in the market as well as on their information symmetry. Depending on the type of ownership, the way to monitor the performance of corporate governance can also differ. In this case, the most noticeable factor is the ever-increasing presence of institutional investors in the corporate owners' forum and the impact that the active presence of this group can have on the way of governance in organizations as well as on their performance. Institutional shareholders have the potential to influence the managers' activities directly through ownership and indirectly through their stock exchanges. The direct or indirect influence of institutional stakeholders can be of paramount importance (Nikbakht, et al. 2010). Accordingly, the major objective of this study was to examine the effect of institutional ownership on the relationship between risk appetite and financial performance.

Research Background

Mahmoud Abadi and Zamani (2016) studied the relationship between corporate governance mechanisms, company risk appetite, and financial performance as well as the effect of corporate governance mechanisms on the relationship between risk appetite and financial performance. The study findings showed that the companies' risk appetite has a positive and significant relationship with their financial performance. Also, the percentage of independent board members has a negative and significant effect on the companies' risk appetite; however, the percentage of ownership for the stockholders and the number of board members were not significantly correlated with the level of risk appetite. Regarding the effect of the board composition and institutional ownership on the relationship between risk appetite and financial performance, the findings revealed that the independence of the board of directors, their number, and the percentage of ownership for institutional shareholders have a positive effect on the relationship between risk appetite and financial performance and strengthen such a relationship.

Ahmadi et al. (2016) investigated the effect of credit risk on performance, suggesting that a shock as large as a standard deviation in credit risk lead to a decrease in banks' liquidity, return on assets, and profitability. According to their findings, credit risk does not play a role in determining the profitability of banks over a long term; however, liquidity and asset returns of the banks are significantly affected by credit risk over a long term.

GhalibafAsl et al. (2015) investigated the relationship between managers' risk aversion and the performance of financial institutions in the capital market. The results of this research reported that there is a meaningful and inverse relationship between the managers' risk aversion and performance of investment funds.

In their research, Jiraporn et al. (2017) examined the impact of strategic corporate governance on companies' risk aversion and concluded that companies with effective corporate governance implemented a strategy of significantly lower risk.

In a study on the relationship between the company's risk appetite, value and the high level of earnings forecasted by managers, Michael, Imhof, Scott & Seavey (2016) concluded that the high level of earnings forecast reduces the positive correlation between the company's risk appetite and value.

Tsai and Gu (Yeah, et al. 2015) explored the relationship between institutional ownership and corporate performance in the casino industry. Institutional ownership is equal to the percentage of shares held by

public corporations out of the total equity capital. The companies include insurance companies, financial institutions, banks, state companies, and other state-run components. They claimed that institutional investors in casinos might help the investors of this industry to reduce the agency issues resulting from the segregation of management and ownership.

Research theoretical fundamentals

A) Moderator variable

Institutional ownership

To calculate the percentage or amount of institutional ownership, the total amount of equity available to banks and insurance companies, holdings, investment companies, pension funds, equity financing companies and investment funds, organizations and state-run institutions and corporations are divided by all shares issued by the company.

B) Independent variable

Risk appetite

The company's risk appetite is defined as a set of organizational processes, systems, and applications focusing on creating new industries, markets, and fields.

B) Dependent variable

Financial performance

It refers to the performance of the activities taken over by the company.

Financial Performance

It also refers to the value added in the production process to the value of intermediate goods. This concept is relevant to the production process, not to a particular product.

C) Control variables

Company's Size

The natural logarithm is defined as the company's being less exposed to commercial risk due to their access to more product markets and savings to scale under the impact of production factors. They are also more resistant to commercial pitfalls. Therefore, larger companies are expected to experience lower risks. In other words, the total share value (in Rials) of a company listed in the stock exchange stands for the company's size (Namazi, et al.2010).

Financial Leverage

It depends upon the fixed costs (interest costs and financial charges). A financial leverage is established by borrowing or selling bonds. If no loan is received, there will be no financial leverage. Accordingly, if a company needs financial resources to start operations, it can provide the resources through various ways.

Research hypotheses

Given the theoretical foundations and the research background, the following hypotheses were formulated to achieve the above objectives:

H 1: Risk appetite has a significant relationship with financial performance.

H 2: Institutional ownership has a significant impact on the relationship between risk appetite and financial performance.

Operational definition of variables

The following regression model was used to examine the variables:

$$EVA_{it} = \beta_0 + \beta_1 INS_{it} + \beta_2 RISK_{it} + \beta_3 INS_{it} * RISK_{it} + \beta_4 SIZE_{it} + \beta_5 LEV_{it} + e_{it}$$

EVA is Indicator of Financial Performance for Company *i* in the year *t*

INS is Indicator of Corporate Ownership in the year *t*

RISK is Indicator of Risk Appetite for the Company *i* in the year *t*

SIZE is Indicator of Company's Size for the Company *i* in the year *t*

LEV stands for Financial Leverage of the Company *i* in the year *t*

Institutional ownership

It is equal to the percentage of institutional shareholders according to the ownership structure (Namazi, et al.2010).

Risk appetite

In this research, the beta coefficient was used as a benchmark and risk appetite index, which is calculated as follows:

$$\beta_i = \frac{COV(R_{i,t}, R_{m,t})}{\delta_{R_{m,t}}} = P_{i,m} \frac{\delta_i}{\delta_m}$$

P represents the correlation coefficient between asset returns and market portfolio returns;

$P_{i,m}$ shows the correlation coefficient between asset returns and market portfolio returns;

δ_i is the standard deviation of return on assets;

δ_m is the standard deviation of market portfolio returns;

$\delta_{R_{m,t}}$ is there turns variance of the market portfolio (Jiraporn, et al.2017).

Financial performance

The economic value added variable is used to measure the company's financial performance.

Economic value added

The following equation is used to measure the variable:

$$EVA = NOPAT - (C \times \text{Capital})$$

C = capital cost rate

NOPAT = Net Operating Profit After Tax;

Capital = Used Capital [12].

Company's Size

The size of a company is determined based on the logarithm of the company's shares.

Financial Leverage

This ratio is obtained by dividing the total debt by the company's total assets (Jahankhani,et al.2010).

Methods

The research methodology is a set of valid (reliable) and systematic rules, tools and paths to investigate facts, identify uncertainties and find solutions to problems (Khaki.2008). Considering the fact that the data are extracted from the real companies' information and their results could affect the decisions of capital market participants, this study is applied research. On the other hand, because the causal relationship between the research independent and dependent variables was investigated, it is a post-hoc study in terms of its implementation. Regarding the procedure and the relationship between variables, the study was descriptive-survey and causal-correlational, respectively. The study was quantitative regarding the type of data collection and retrospective in terms of its run time. The study can be considered as inductive because of its implementation rationale. The relative scale was adopted as the measurement scale for the collected data. The relative scale bears all the features of the interval, ordinal, and nominal scales and is the most accurate measurement scale. This scale has a real zero value, i.e. a point on a scale representing the complete absence of a measured feature.

The research population consisted of the companies listed in the Tehran Stock Exchange (N=910) from 2012 to 2016. In this research, the systematic exclusion was used for sampling. According to the limitations, 165 companies were selected as the research sample. In general, the study data were gathered using library method and organizational documents.

Research findings

Describing and reporting the collected data is one of the major research processes in the data analysis section. Research data were collected and categorized using secondary information resources. The description of the information and statistical data is done according to the measurement scales. In this section, the specifications of the statistical sample and the indicators of their financial statements are thus examined and discussed in two separate sections.

Descriptive statistics are used to process and summarize the methods through which the information is gathered. It should be noted that the number of company-years of research variables reduced slightly following the exclusion of the outliers and sorting the data.

Table (1). Descriptive statistics of study variables

| study variables | Symbol | N | Mean | Median | SD | Max. | Min. |
|-------------------------|--------|-----|-------|--------|-------|-------|--------|
| Institutional ownership | INS | 825 | 0.726 | 0.698 | 0.263 | 0.999 | 0.000 |
| Risk appetite | RISK | 825 | 0.865 | 0.790 | 0.386 | 5.161 | 0.351 |
| Financial performance | EVA | 825 | 0.261 | 0.241 | 0.106 | 1.431 | -0.268 |
| Financial Leverage | LEV | 825 | 0.419 | 0.403 | 0.192 | 1.86 | 0.103 |

| | | | | | | | |
|----------------|------|-----|-------|-------|------|-------|------|
| Company's size | SIZE | 825 | 14.64 | 14.30 | 1.13 | 17.84 | 8.60 |
|----------------|------|-----|-------|-------|------|-------|------|

(In million Rials)

As Table (1) presents, the mean value of institutional ownership is 0.726 and its median is 0.698. In general, the central tendency measures are the ones examining and comparing the distribution of observations around the mean, one of the most significant of which is standard deviation. According to the above table, this standard deviation for the variable of institutional ownership is 0.263.

In this study, the model estimation was performed based on the panel data. This is a combination of time-series information (2012-2016) and cross-sectional data obtained from 165 companies listed in Tehran Stock Exchange Market. All values estimated for each of the model variables are in million Rials. E-views software was used to analyze the collected data. Estimated models are presented in the form of multivariate regression models according to the presented hypotheses. The test results are as follows:

Table (2). Research model test results

| Variable | symbol | Correlation coefficient | SD | t-value | Prob. |
|--|---------------------------|-------------------------|-------|---------|--------|
| Constants | C | 0.523 | 0.140 | 3.729 | 0.000 |
| Institutional ownership | (INS ₁ β) | 0.438 | 0.134 | 3.251 | 0.0054 |
| Risk appetite | (RISK ₂ β) | 0.032 | 0.007 | 4.103 | 0.0127 |
| Institutional ownership * Risk appetite | (INS*RISK ₃ β) | 0.198 | 0.152 | 1.296 | 0.0067 |
| Company's size | (SIZE ₄ β) | 0.089 | 0.032 | 3.021 | 0.000 |
| Financial Leverage | (LEV ₅ β) | 0.596 | 0.110 | 5.396 | 0.0001 |
| F-statistics | | | | 35.402 | |
| Prob. | | | | 0.000 | |
| Durbin-Watson statistic | | | | 2.077 | |
| Coefficient of determination (R ²) | | | | 0.424 | |
| Adjusted coefficient of determination (AdjR ²) | | | | 0.413 | |

Source: Research findings

According to the findings, the significance level of F-statistics is less than the error level (0.000) and the total regression model is significant. The coefficient value of Durbin-Watson (2.077) was located between 1.5 and 2.5; therefore, there is no correlation between the components of the model error. Given the low probability value of t-statistics in comparison to the accepted level of error for the coefficient β_1 , the test results revealed the positive and significant effect of institutional ownership on financial performance. The value of t-statistics compared to the accepted level of error for the coefficient β_3 suggests that the institutional ownership has a positive and significant influence on the relationship between risk appetite and financial performance; therefore, the research null hypothesis can be rejected at 5%. Furthermore, the t-value compared to the accepted level of error for the coefficient β_4 shows that the control variable of the company's size positively and significantly correlates with the financial performance. Concerning such a comparison for β_5 , it can be found that the financial leverage as a control variable has a positive and significant correlation with the financial performance. The coefficient of determination and the adjusted coefficient of determination also indicate that the variables included in the regression explain 41 percent of the variations with respect to the dependent variable.

Conclusion

According to the findings, it can be concluded that institutional ownership has a positive and significant impact on the relationship between risk appetite and financial performance at the 0.05. It was also noted that the company's size has a positive and significant relationship with the financial performance and the financial leverage also positively and significantly correlates with financial performance. The fitted model is as follows:

$$EVA = LEV + 0.597SIZE + 0.098 INS * RISK + 0.198 RISK + 0.032 INS - 0.523 + 0.438$$

Concluding Remarks

Risk and risk management have formed a major part of the recent studies since the managers' high risk-appetite with a view to improving stock prices plays a critical role in financial crises. Meanwhile, the agency theory states that there is a conflict of interests between managers and owners and managers' preferences in terms of performance and risk appetite is different from the owners'. On the contrary, risk appetite can improve the company's performance. A corporate governance system is associated with the relationships among the managers, board members, shareholders, and other stakeholders and provides a framework through which the corporate goals are defined and some methods to achieve goals and monitor performance are introduced. This research was to discover the effect of institutional ownership on the relationship between the risk appetite and financial performance of the companies listed in Tehran Stock Exchange Market. The effect of independent variable was investigated using panel data and fixed-effect method in companies. The results achieved for the first hypothesis confirmed that there is a positive and significant relationship between risk appetite and financial performance. Regarding the second hypothesis, it was noticed that institutional ownership has a positive and significant impact on the relationship between risk appetite and financial performance at 0.05. The findings also provided the support for the positive and significant relationship between the company's size and financial performance as well as between the financial leverage and financial performance. To explain the findings, it can be argued that the existence of a major mediator, such as an institutional investor, can resolve the problems of brokerage because of the capability to enjoy the economic advantage of scale and diversity. Institutions reduce uncertainty about the real price of assets, decrease the losses in transactions, increase the interest of investors, and, eventually, enhance the market liquidity. Institutional investors have incentives to improve performance as well as the authority to punish managers who do not pursue their interests. This could suggest that institutional owners actively manage their portfolios and encourage the executives to make optimal decisions. In other words, the existence of institutional investors improves performance and, consequently, increases the shareholder's wealth. To achieve their increased portfolio value, the institutional owners encourage the managers of invested companies to make optimal decisions and, consequently, to improve the company's performance. According to the findings, an increased amount of institutional ownership in companies has a direct impact on the relationship between risk appetite and financial performance. This issue reflects the hypotheses on the supervisory function of the institutional owners. According to the supervisory hypothesis, it is believed that institutional owners for the sake of the scale-saving benefits can impose more influence over the company owing to their inherent characteristics and direct the management function in line with the benefits of investors. Thus, the asynchronous component of information asymmetry would be reduced by the presence of these investors, resulting in improved assurance and financial performance. The findings are in line with the ones put forth by Jirapornnet al. (2017), Michael et al. (2016) and Mahmoud Abadi and Zamani (2016).

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