Impact of Ownership and Capital Structures on the Performance of Listed Companies in Tehran Stock Exchange (TSE)

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Abstract

The purpose of present study is to investigate the impact of ownership and capital structures on the performance of listed companies in Tehran Stock Exchange (TSE). Thus, 153 companies were sampled out during the year 2004 till 2008. The research hypotheses were verified using multiple regression analysis. Tobin Q ratio and the Rate of return on assets (ROA) were used as indices of corporate performance. Company ownership structure through the mechanisms of institutional, block stock, and stock concentration as well as capital structure were investigated by the indices of the ratio of liability to equity and long-term liability to equity. In general, hypothesis test results showed that the mechanisms of the ownership structure and institutional stock had a significant positive correlation with Tobin Q ratio, and block stock had a significant positive correlation with the rate of return on assets. Also results showed that capital structure has a significant negative correlation with corporate performance.

Keywords: Ownership Structure; Capital Structure; Institutional Shareholders; Block Stock; Stock Concentration.

1. Introduction

Economic advancements, industrial revolution in Europe in the nineteenth century and its persistence, resulted in giant manufacturers and large industrial projects such as railways networks. These manufacturers and projects required large investments. Providing these investments by one or more investor was impossible. So to finance these projects large companies were formed, which mostly were from corporations. The ownership structure of these companies was composed of several owners. Increasing number of corporate owners decreased the control and management of these companies by their owners, which made the separation of ownership and management creating the issue of agency problem. In the issue of agency problem, conflicts of interest between the owners of the company (employers) and managers (employees) are assumed. The agency costs are provided by such conflict of interest. To reduce conflicts of interest and agency costs in the firms, various mechanisms are used the most of which is corporate governance. Corporate governance includes internal and external mechanisms. Factors related to the company's ownership structure and composition of the firms’ ownership is one of the most important mechanisms of external surveillance (Monitoring) of corporate governance. Corporate governance has control and supervision over the work of the directors reducing agency costs and increasing corporate value and performance (Jensen and Mecling, 1976 and Jensen, 1986).

On the other hand, the required capitals of these firms are provided by a variety of resources usually classified into two main groups of loans and equities. Determining the optimal composition of capital structure and financing methods, is one of the decisions of the financial management objectives in order to maximize shareholder interests. Its component is one of the most complex issues that financial executives are facing. The capital structure of a company, displays the relationship between liability and equity. Utilizing the liability normally increases the expected and performed return on equity, and on the other hand, it can also cause increased financial risk. Considering the above, the question of the present research is that whether the ownership and capital structures have any impact on the performance of listed companies in Tehran Stock Exchange? Finding answer to this question, managers and decision makers of the companies take appropriate actions to improve corporate performance. Creditors and potential investors, with understanding the
impact of these factors on corporate performance, will make better decisions in the future. This study seems necessity in the sense that it characterizes what type of composition and ownership identity of the corporates can lead to a better supervision on performance. Or utilizing how much liability is better in the make-up of capital. In this article, despite a brief overview of the conducted research, methodology is proposed followed by the results of the hypotheses. Then conclusion is presented and discussed.

2. Theory and Study Background

Keisi et al (1997) to execute effective reign on corporates, introduced mechanisms of the ownership structure and external control factors in the market, including legal protections of minority shareholders’ rights. Therefore the sort of ownership structure and shareholders’ composition of the company is one of the measures of governing. Such governing dimension in various aspects of determining corporate ownership such as ownership distribution, ownership concentration, minor and major shareholders in the corporate ownership composition and its ownership percentage could be deliberated. In general, institutional, block shareholder, and ownership stock concentration are of corporate external governing mechanisms that monitor the managers’ actions and behaviors which could be influential in company performance improvement. These are used as ownership structure mechanisms in this study.

There are three important hypotheses about the relationship between institutional investors and corporate performance: active supervision hypothesis (efficient), conflict of interest hypothesis and strategic alignment hypothesis. Active supervision hypothesis states that given the very high cost of supervision by shareholders, only large shareholders such as institutional shareholders, have ability to monitor and influence the managers (Cornet et al, 2007). This hypothesis has induced institutional shareholders’ positive impact on the firm value. The conflict of interest hypothesis states that institutional shareholders are the ones that are focused on short-term profits over long-term gains. It causes the long-term reduction in the value of the firm (Porter, 1992). The third hypothesis related to institutional shareholders is strategic alignment hypothesis. This hypothesis indicates that institutional shareholders have a kind of strategic alliance with corporate management which has a negative impact on firm value in the long.

Pertinent theories to the corporate governance and ownership structure, such as agency theory, state that equity concentration and major shareholder increase the ability to monitor managers’ actions. Jensen and Meckling (1976) articulated that large shareholders improve corporate performance. They can monitor the corporate performance and management practices to protect their assets. In other words, large shareholders have rational economic justification for monitoring the performance of their managers (Shleifer and Vishny, 1989). If the number of major shareholders in the composition of the corporate ownership becomes greater it causes sharing of monitoring and control among major shareholder. And also conflicts of interest between them decrease. Thus, the expected return of shareholders and corporate performance increases.

Modern capital structure theories were introduced with the article of Miller and Modigliani in 1958. The two researchers stated that assuming the lack of income tax, agency costs and etc., the capital structure and corporate value neither are linked nor dependent. They, in their later reviews which were conducted in 1963, stated that utilizing liability in the capital structure will reduce the payable corporate income tax by involving the corporate income tax factor. And greater use of liability leads to an increase in the corporates’ value. In fact, corporate tax allows them to deduct the loan interests and liabilities as the cost, from profits.

2.1. Ownership Structure and Corporate Performance

Ashahid (2003) in his review on 90 selected companies in stock market in Egypt concluded that the correlation between ownership type and the indices $P/BV$ (book value) and $P/E$ is not significant. But the relationship between ownership type and corporate accounting performance (ROA and ROE) is a significant relationship.

Driffield, et al (2007) reached a conclusion that the ownership concentration has a positive effect on financial leverage and corporate value in Indonesian and Korean companies however, such effect was negative in Thailand and Malaysia. They also concluded that ownership concentration as an effective monitoring mechanism can reduce agency costs. The results of the study of Bertrand and Molainathan (2001) also showed that a major shareholder in the composition of the board of directors contribute to more control over managers’ payroll.

Minguez and Martin (2007) by using data from 95 Spanish companies and using panel data methods concluded that major shareholders have no significant correlation with the companies’ Tobin Q ratio. Tsaiia and Gu (2007) in a study reviewed the relationship between institutional ownership and performance in 106 U.S. firms between 1999 and 2003. Tobin Q ratio was used for performance in this research. The overall results of the research hypotheses using multiple regression analysis showed a positive significant relationship between institutional ownership and corporate performance.
Lee (2008) in a study entitled "Ownership Structure and Financial Performance: Evidence from Panel Data of South Korea " reviewed Korean companies. In this study three concentration stock variables (number of shares held by the largest shareholder), foreign shareholders and institutional shareholders were used for ownership structure. The rate of return on assets was used for the corporate performance. Based on the findings corporate performance is improved by concentration of shares however, foreign and institutional owners' influence was not observed on corporate performance.

Arosa et al (2009), using data from 586 Spanish companies investigated the impact of ownership structure on corporate performance. In this study, the ownership structure has been calculated through stock concentration and family concentration stock. Profitability (rate of return on assets, ROA) and earnings before interest and taxes (EBIT) were indices for the performance in this study. The results of this study indicated that the relationship between ownership concentration and corporate performance depends on family management and family ownership concentration.

Hosseini (2007) investigated the effect of institutional investors, as one of the corporate governance criteria, on dividend to shareholders. The results showed that despite the institutional ownership rate in listed companies at Tehran Stock Exchange was very high; there was no significant correlation between institutional shareholders and dividend to shareholders.

Namazi and Kermani (2008) in their research reached the conclusion that there is a significant negative relationship between "institutional ownership" and corporate performance and positive significant relationship between "corporate ownership" and company performance. "Management ownership" significantly and adversely affects performance. "Foreign ownership" which owned by foreign investors was not observed in the sampled firms. Overall, there was a significant correlation between corporates' ownership structure and performance.

Babai Zakliki and Ahmadvand (2008) concluded that increasing the number of major shareholders in the company's ownership composition increases return on equity. Meaning that, major shareholders and ROE have positive correlation. Furthermore, the number of major shareholders showed a positive relationship with .

Hassas Yeganeh, Moradi and Eskandar (2008) investigated the relationship between institutional ownership and corporate value. The results indicated a positive correlation between institutional investors and corporate value which supports the effective supervision hypothesis. However, the results of the study indicated no significant correlation between institutional ownership concentration and firm value which does not confirmed the interest convergence hypothesis.

Sadeghi Sharif and Bahadori (2009), in a study concluded that the ownership amount of the largest shareholder and the ownership of five greater shareholders have a positive impact on the payout ratio of the company. It means that most companies that are owned by a single shareholder or 5 greater stockholders have a higher dividend ratio than companies whose ownership are much more dispersed. Concentration of ownership increases the dividend ratio. The effect of institutional shareholders on the company's dividend ratio was confirmed. This means that the greater institutional ownership in a company the greater dividend ratio over time. On the other hand the higher real shareholders' ownership in a corporation the less interest payments.

2.2. Capital Structure and Corporate Performance

Baker and Wurgler (2002) reviewed the relationship between financial leverage and corporate performance, using the ratio of market value to book value as representative of the performance. They concluded a negative correlation between the ratio of market value to book value and financial leverage. Abor (2005) studied the impact of capital structure on profitability of Ghanaian firm's between1998 and 2002. Although he observed a significant negative relationship between the ratio of long-term liability to total assets ratio with the ROE, his hypotheses result showed a significant positive correlation between the ratio of current liability to total assets with ROE. The results also showed a relationship between the ratio of liability to total assets with return on equity.

Ehaid (2009) evaluated the effect of capital structure on corporate performance of 64 Egyptian companies using a regression model between 1997 and 2005. He concluded that the capital structure has a significant positive effect on corporate performance. In another study in New York and American Stock Exchange, it was concluded that there is significant negative correlation between capital structure and returns on assets (Fosberg and Ghosh, 2006).

Results of the study of Zeiton and Tain (2007) from 167 companies showed that the capital structure had a negative correlation, with both accounting performance indices (ROE and ROA) and market performance indices
Eriotis (2007) in a study reviewed the relationship between capital structure and profitability of the companies. In his study, he used the liability ratio to total assets for capital structure. He concluded that capital structure had negative correlation with the company's profitability. In other words, increased rate of liability to total assets of Greek firms reduced their profitability.

Biglar (2006) examined the relationship between capital structure and performance traits of listed companies in Tehran Stock Exchange and concluded an effect of the capital structure of the firms on financial performance. This means the firms with high liability ratios have shown a better performance. In another study, Namazi and Shirzadeh (2005) examined the relationship between capital structure and profitability of listed companies in Tehran Stock Exchange by sampling 108 companies from various industries (food and beverage, chemical, non-metallic mineral and car). They concluded that there was a positive correlation between capital structure and profitability, but this correlation was statistically a weak correlation.

Arbabian and Safari (2009) have accepted the effect of capital structure on profitability of listed companies in Tehran Stock Exchange. In their study 100 companies from 13 industries, were chosen and were examined using multivariable regression models. The results showed that there is a positive correlation between short-term liability ratio to asset and profitability also between total liabilities ratio to asset and profitability. However, there was a negative correlation between long-term liability ratio to assets and profitability. Piri (2010) in a study concluded that capital structure indices (liability to equity ratio and current liabilities ratio to total assets) has no statistically significant correlation with the company's market value.

3. Research Hypotheses

Considering previous theory and conducted research, hypotheses of this study are proposed as follows:

**Hypothesis 1**: The ownership and capital structures have a significant impact on Tobin Q ratio.

**Hypothesis 2**: The ownership and capital structures have a significant impact returns on asset of the companies.

4. Materials and Methods

The present research is a descriptive–correlational study tries to describe relationships between variables using statistical tests. The methodology of the study is retrogression using historical data. The research type in terms of purpose is an applied research.

To conduct the study, a sample of listed companies in Tehran Stock Exchange (TSE) was selected. The sample included companies which were accepted in Tehran Stock Exchange by the end of 2003 and stayed members until the end of 2008. They did not become a part of investment companies, banks and insurance companies. Their fiscal year period ended on March. Their fiscal year did not change during the course of this study. Due to the limitations mentioned above, 153 sample companies were considered for the study.

Data and required information were collected from Tehran Stock Exchange official site including Exchange information, research management, development and Islamic studies cites. Initial calculations were done in Excel spreadsheet. The final analysis was performed using SPSS16 software and utilizing multiple regression models, significance of the regression model (t-Test), variable coefficients test, coefficient of multiple determination and Dourbin – Watson test. To test the research hypotheses the following multiple regression models also was used:

$$\text{Performance}_{it} = \alpha_0 + \beta_1 \text{Ownership}_{it} + \beta_2 \text{Capital}_{it} + \beta_3 \text{Tangibility}_{it} + \beta_4 \text{Growth}_{it} + \beta_5 \text{Size}_{it} + \varepsilon_0$$

Performance represents the dependent variable and corporate performance in the above regression model that proportionately has been used in Tobin Q ratio and the rate of return on assets (ROA) in any test of the main hypothesis. Tobin Q has been calculated by the comparison of market value (year-end stock price multiplied by the number of issued company shares) and the book value of the company's assets. ROA is evaluated by the net income divided by the total assets.

Ownership and Capital indicate the independent variables of this research representing ownership and capital structures of the company, respectively. Institutional stock (INST), major or block stock and concentrated stock (CENT) mechanisms have been used for ownership structure. INST is obtained from percentage of institutional stock shares (banks, government institutions, investment companies and in general corporate shareholders). Block stock represents the percentage of shares held by the company's largest shareholder. CENT represents the shares of top 5 percent shareholders. Liability to equity ratio and long-term liability to equity ratio have been used for capital structure.
Tangibility, Growth and Size Control represent control variables. Tangibility indicates sensible assets ratio which is calculated by dividing fixed assets by the total assets. Growth reflects the company's growth, obtained by the mean geometric sales growth. Size also reflects size of the firm which is used as a measure of firm value in this study.

5. The Results of Hypotheses Test

Table 1 shows the results of first hypothesis test. Significance level of model is 0.000 and t-Test value is 27.150 which show that, in general, the model is statistically significant. Hence it can be used as a model. The Dourbin - Watson statistics from running the model is 1.813 that is between 1.5 and 2.5 which is acceptable. Given 0.073 significant levels of institutional shareholders and its positive coefficient, it can be said that institutional shareholders are at the 90 percent confidence level and has significant positive correlation with Tobin Q ratio. However, given the significance level of block (major) and concentration stock mechanisms, 0.882 and 0.718 respectively, it can be said that these mechanisms have no significant correlation with Tobin Q ratio.

Significance level of liability to equity ratio is 0.000. Its coefficient is negative indicating that with 99% confidence level there is a significant negative correlation between this ratio and Tobin Q. However, given the significance level of index of long-term liability to equity ratio which is 0.228, it can be said that there is no statistically significant correlation between index of capital structure ratio and Tobin Q.

In General, according to determination coefficient (0.634), obtained from the result of implementation of the model, there is a significant relationship between some of the independent variables with Tobin Q ratio. It can be said that the main first hypothesis is confirmed. The capital and ownership structure variables along with control variables have accounted for about 63% of the variation of the Tobin Q ratio.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Significance Level</th>
<th>Standardized Coefficient</th>
<th>t-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.000</td>
<td>-</td>
<td>4.291</td>
</tr>
<tr>
<td>Institutional Stock (INST)</td>
<td>0.073</td>
<td>0.109</td>
<td>1.806</td>
</tr>
<tr>
<td>Block stock</td>
<td>0.882</td>
<td>- 0.010</td>
<td>- 0.148</td>
</tr>
<tr>
<td>Stock Concentration (CENT)</td>
<td>0.718</td>
<td>- 0.024</td>
<td>- 0.361</td>
</tr>
<tr>
<td>Liability to Equity Ratio</td>
<td>0.000</td>
<td>- 0.234</td>
<td>- 4.266</td>
</tr>
<tr>
<td>Long-term Liability to Equity Ratio</td>
<td>0.228</td>
<td>- 0.068</td>
<td>- 1.212</td>
</tr>
<tr>
<td>Tangible Asset Ratio (Tangibility)</td>
<td>0.000</td>
<td>- 0.329</td>
<td>- 5.764</td>
</tr>
<tr>
<td>Sale Growth</td>
<td>0.964</td>
<td>- 0.002</td>
<td>- 0.045</td>
</tr>
<tr>
<td>Corporate Size</td>
<td>0.000</td>
<td>0.729</td>
<td>12.430</td>
</tr>
<tr>
<td>Dourbin- Watson test: 1.381</td>
<td></td>
<td>f-Test: 27.150</td>
<td></td>
</tr>
<tr>
<td>Determination Coefficient: 0.634</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modified Determination Coefficient: 0.611</td>
<td></td>
<td>Significance of f-Test: 0.000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Research findings

The test results of second hypothesis are reflected in Table 2. The result of the regression model showed that the model was significant at the 99% confidence level and f-Test 29.328. The Dourbin- Watson statistics was 1.772, desirable and acceptable. Considering significance level of 0.562 for institutional shareholders, it can be said that institutional shareholders have no significant correlation with the rate of return on assets. However, given the significance level of 0.070 obtained for the block shareholder (major) with positive coefficient, it can be said that there is a significant positive correlation between the major shareholder and the rate of return on assets with 90% confidence level. As well, due to the
significance level of 0.644 for stock concentration correlation between these variables and the rate of return on assets was not approved.

About the correlation of capital structure with the rate of return on assets indices, given the significant level of 0.000 for liability to equity ratios and its negative coefficient as well as significance level of 0.016 for the long-term liability to equity ratio and its negative coefficient, we can say that a negative correlation exists between the capital structure and rate of return on assets.

Generally, given the determination coefficient of 0.620 obtained from the regression model, we can say that the second hypothesis is confirmed. Ownership and capital structure variables as well as control variables were able to cause 62% of the variation in assets return.

**Table 2: Result of the Second Hypothesis**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Significance Level</th>
<th>Standardized Coefficient</th>
<th>t-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.000</td>
<td>-</td>
<td>4.667</td>
</tr>
<tr>
<td>Institutional Stock (INST)</td>
<td>0.562</td>
<td>0.035</td>
<td>0.581</td>
</tr>
<tr>
<td>Block stock</td>
<td>0.070</td>
<td>0.117</td>
<td>1.828</td>
</tr>
<tr>
<td>Stock Concentration (CENT)</td>
<td>0.644</td>
<td>-0.031</td>
<td>-0.463</td>
</tr>
<tr>
<td>Liability to Equity Ratio</td>
<td>0.000</td>
<td>-0.304</td>
<td>-5.544</td>
</tr>
<tr>
<td>Long-term Liability to Equity Ratio</td>
<td>0.016</td>
<td>-0.138</td>
<td>-2.437</td>
</tr>
<tr>
<td>Tangible Asset Ratio (Tangibility)</td>
<td>0.001</td>
<td>-0.193</td>
<td>-3.350</td>
</tr>
<tr>
<td>Sale Growth</td>
<td>0.922</td>
<td>0.005</td>
<td>-0.098</td>
</tr>
<tr>
<td>Corporate Size</td>
<td>0.000</td>
<td>0.732</td>
<td>12.384</td>
</tr>
<tr>
<td>Dourbin-Watson test: 1.772</td>
<td></td>
<td></td>
<td>f-Test: 29.327</td>
</tr>
<tr>
<td>Determination Coefficient: 0.620</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modified Determination Coefficient: 0.599</td>
<td></td>
<td></td>
<td>Significance of f-Test: 0.000</td>
</tr>
</tbody>
</table>

Source: Research findings

6. Results and Discussion

In this study, two hypotheses were tested. In the first hypothesis Tobin Q ratio and rate of return on assets in the second hypothesis were considered as the dependent variable. The impact of ownership and capital structure were examined. For Ownership structure, institutional, block, shareholders mechanisms, and stock concentration share were used. For capital structure, liability to equity ratio indices and long term liability to equity ratio were used. Hypothesis test results showed that institutional shareholders have a significant positive relationship with Tobin Q ratio. This confirms the hypothesis of active monitoring. But the significance of ownership structure mechanisms (block shareholder and stock concentration) was not confirmed with Tobin Q. On the other hand, in the second hypothesis a significant correlation was confirmed between the rate of return on assets and block shareholders. But statistically significant correlation between two other ownership structure mechanisms and rate of return on assets was not confirmed. The results of this study were in accordance with the study of Minguex and Martin (2007), Tsaia and Gu (2007) and Babai Zakliki and Ahmadvand (2008). However, some research results, including Lee (2008), and Namazi and Kermani (2008) were not supported. As Lee deduced a positive impact of ownership concentration with the performance and Namazi & Kermani concluded a negative impact of institutional ownership with the performance.

About the relationship between capital structure and corporate performance, the results of hypothesis showed a significant negative correlation between liabilities to equity ratio and Tobin Q ratio. But statistically significant correlation was not observed between the long-term liabilities to equity ratio with Tobin Q. On the other hand in the Second main hypothesis test significant negative correlation between considered two indices for the capital structure was
shown with the rates of return on assets. Thus, given the negative utilized correlation between capital structure and corporate performance indices, we can say that the use of liability in the capital structure of the company has failed to act as a leverage to increase the company’s performance. These results are in accord with the results of Baker (2002), Zeiton and Tain (2007). But the present results do not correspond with some investigator’s result such as Ebaid (2009), Arbabian and Safari (2009). In these researches the impact of capital structure on performance is concluded.

Although the results show a significant relation between some mechanisms of ownership and capital structure with the performance at different levels, in general, we can say that the existence of significant correlation either positive or negative depends upon both the choice of performance index type and considered mechanisms and indices for ownership and capital structures. For example, institutional shareholders with the Tobin Q ratio as an index of corporate performance showed a significant positive correlation. But such ownership structure mechanism did not reveal a significant correlation with the rate of return on assets. Or a significant correlation between long-term liabilities to equity with the rate of return on assets was not confirmed while this index displayed a significant correlation with Tobin Q ratio.

Resources


