THE EFFECTS OF OWNERSHIP STRUCTURE, CAPITAL COMBINATION, AND LIQUIDITY ON THE MARKET VALUE OF THE COMPANIES IN THE INDEX OF 50 MOST ACTIVE FIRMS LISTED ON TEHRAN STOCK EXCHANGE

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ABSTRACT

This research aims to study the effects of ownership structure, capital combination, and liquidity on the market value of the companies in the index of 50 most active firms listed on Tehran Stock Exchange. The statistical population of this research consists of the companies in the index of 50 most active firms listed on Tehran Stock Exchange. All these companies have been selected as the sample of the statistical population for the period from 2001 to 2011. To study the effects of the independent variables including ownership structure, capital combination, and liquidity on the market value of the above-mentioned companies listed on Tehran Stock Exchange, the hypotheses are tested by multivariate regression model. The results indicate that the percent of the shares held by the institutional investors has a positive and significant effect on the market value of the studied companies. However, the share concentration has a significantly negative effect on the market value of the same companies. Moreover, there is no positive and significant relation between capital structure and market value. In addition, liquidity has a positive and significant effect on the market value of the studied companies. Finally, the control variables of this research including Tobin’s Q, DPR, and TANG have a positive and significant effect on the market value of the companies studied in this research.

Keywords: Ownership Structure, Institutional Investors, Index of 50 Most Active Companies, Capital Structure, Liquidity

JEL Classification: G1, G11, G32, D53, E44

INTRODUCTION

Economic progresses, globalization, industrial revolution, etc. have formed large companies, which are mostly joint stock ones that need to enhance their competitive capabilities to finance themselves by selling shares. The market value of companies, and factors effective in such values are the issues, to which investors pay considerable attention when they making decisions on the sales of stocks. Indeed, investors try to recognize the factors
Effective in the value of companies to forecast the procedure of changes in price and value, and make necessary decisions on the purchase of specified shares (Neveu, P. R. 2007). The establishment of large companies and increase of the number of their owners have caused the ownership to be separated from the management of companies, and the concept of agency. In this issue, there is a conflict of interest between owners (employers) and directors (agents), and the costs of agency arise out of this conflict of interest. Corporate governance consisting of internal and external mechanisms is used to reduce the conflict of interest and agency costs (Jenson & Meckling, 1976; Abdullah, 2004). The combination of companies’ ownership is one of the most important external mechanisms of corporate governance, and the stockholders can control and monitor the directors of their company to reduce the costs and increase the value of the company (Jensen, 1986).

Capital structure of a company represents the relation existing between debt and equity. Debt restricts the management of a company, while capital increases the flexibility and power of decision-making. Principally, the use of debt in financial structure increases the return expected by stockholders. However, the use of debt may increase corporate risk too. In general, the use of debt in financial structure of companies acts like a two-edged sword, as it can not only increase firm value, but also decrease it.

Cash fund is an asset, which is very vulnerable to the conducts of directors. Therefore, directors prefer to spend cash in two conservative and audacious manners. In conservative manner, it is tried to save money for the future payments and investment opportunities while in audacious method, directors invest in risky projects.

In the first method, it is more probable to save stagnant money, and according to the theories of time value of money, the saved funds lose their value gradually. On the other hand, if appropriate opportunities for investment are recognized, they can be used for profitability and creation of more value for the company.

In the second method, audacious strategies are applied for spending money. This may lead to invest in not profitable projects, and in conclusion reduces the value of the related company. On the other hand, investment in risky projects can lead to more returns too (Harford, 1999, 2008; Dittmar, Mahrt, & Smith, 2007).

RESEARCH PROBLEM

The price of shares of companies, which expresses their value, is the most prominent criterion for investment in and appraisal of companies. Many studied have been conducted to find out the origin of such values and the factors that may affect them. In the literature of ownership structure, capital structure and liquidity have been introduced as the factors having the most effects on the value of companies.

After the introduction of corporate governance in 1990s, and the issues regarding the structure and identity of the owners of companies, the structure of corporate ownership attracted attentions of the stock exchanges, investors, and main decision-makers of the companies. In Iran, the issues regarding the ownership structure of companies have attracted the attentions after the preparation of the drafted bylaw of corporate governance system, which led to paying more attentions to the role of owners in the control and supervision of the directors of their companies as well as the changes in the ownership of companies after the privatization. As the determination of an optimal combination for capital structure is one of the main objectives and decisions of the directors of companies in order to meet the target
of maximizing the wealth of stockholders, and therefore, the economists, corporate directors, and investors pay special attentions to the capital structure of companies. Moreover, as cash fund (liquidity) has different effects (and can not only improve the performance and value of companies by investing it in profitable projects, but also diminish the value of companies due to the investment in high risky projects), therefore it has attracted the attention of potential investors and companies’ directors. According to the above-mentioned facts, the main question of this research is that if the ownership structure and combination of capital and liquidity have effect on the market value of the companies in the index of 50 most active firms of Tehran Stock Exchange. The answer to this question helps the directors and main decision-makers of companies to take very effective measures to enhance the value of their companies. The creditors and investors, who recognize the effectiveness of such factors, can be better informed about the market reactions and informative content of the profit and loss items.

The main purpose of this research is to identify the effects of ownership structure, and the combination of capital and liquidity on the market value of the companies in the index of 50 most active firms of Tehran Stock Exchange. Considering the drafted bylaw of corporate governance system, and the role of owners in the control and supervision of the conducts of corporate directors, it is required that the supervision mechanisms of corporate governance are studied more in order to pay enough attention to such factors for the preparation of the final code of corporate governance. Moreover, the other objective of this research is to identify the effects of the debt used in capital structure and saved cash on the market value of companies.

**Research Theoretical Framework**

After the separation of corporate management from the ownership of companies, and the introduction of the theory of agency by Jensen and Meckling (1976), the issues regarding internal control and ownership structure as external activities of corporate governance have attracted attentions. Jensen and Meckling categorized directors as the agent and stockholders as the owners of company. According to the theory of agency, in the companies with dispersed stockholders, it is less possible to control and supervise the directors by the stockholders, and the directors may be pursue their own interests, while according to the financial theories, the main purpose of the activities of companies is to maximize the wealth of the stock holders. In the studies on ownership structure, institutional investors and stock concentration are the most important mechanisms of control. Bartov et al (2000), and Bushee (1998) argued that institutional investors are professional investors with long term concentration, and considering the amount of their investment and their skill, such investors can have control over the directors of companies. Moreover, in the companies, in which ownership is concentrated, the investors have enough power based on their voting right to appoint directors and have control over their activities (Jia Li, et al, 2008).

The decisions on financing as one of the crucial decisions made by financial managers should maximize the wealth of stockholders. The paper published by Modigliani and Miller (1958) was the beginning of the studies on capital structure as one of the main factors decisive in firm value. According to their theorem, in the absence of income taxes, agency costs, etc. the capital structure and the value of a firm are separated. Both researchers revised their first theorem in 1963 and stated that the insertion of debt in capital structure could reduce the payable income tax of firm. Therefore, more use of debts leads to the increase in the value of firm.
A higher liquidity ratio of companies makes more assets available for future payments. However, higher ratios may also lead to the decrease in the expected return (Dittmar, Mahrt, Smith, 2007). There are evidences showing that the cash investment in corporate governance by the directors of company is a type of investment that begins in the future, and it is a basis for the appraisal of companies (Harford, 2008). These results supersede just the hypothesis of free cash flow (FCF) introduced by Jensen (1986) and the general theory of agency problem. According to Jensen (1986) and Stulz (1990), stockholders are interested to restrict the access of managers to free cash flow in order to prevent the misuse of the resources of their company by managers. Opler et al (1990) stated that cash is saved for precautionary motives.

REVIEW OF LITERATURE

The review of the studies conducted on the relation between ownership structure and firm value reveals different results. Gompers et al (2003) concluded that the companies with higher equity have higher value, more profits, and lower capital costs. Karathansis and Drakos (2004) concluded that there was a significant and positive relation between institutional investors and firm value. Kapopoulos and Lazaretou (2007) studied the effects of ownership structure on the performance of the companies in Greece, and concluded that concentrated ownership structure could lead to higher profitability. Driffield et al (2007) showed that focusing on ownership had positive effects on financial leverage and firm value of the companies in Indonesia and Korea. However, this effect was reported negative in Thailand and Japan. Hagget et al (2004) studied the relation between ownership concentration and performance. They found no evidence supporting the positive relation between ownership concentration and firm performance. Gugle et al (2008) found a negative relation between firm performance and institutional ownership. Schmid and Zimmermann (2005) found no significant relation between main stockholders and firm value.

Hassas Yeganeh et al (2008) studied the relation between institutional investors and firm value, and found a positive relation between institutional investors and firm value. The results of the research of Hosseini (2007) show that although institutional owners of the companies listed on Tehran Stock Exchange are of high number, there is no significant relation between institutional investors and return.

Moreover, the results of the researches on the relation between capital structure and firm value confirm a significant difference. Opler and Titman (1994) concluded that financial leverage had effects on the return an value of company. Isshagh et al (2009) found financial leverage as a factor decisive in stock price, which is in a significant and positive relation to market value. Fama and French (2002) found a positive and significant relation between the profitability of companies and financial leverage. Lange et al (2004) used Tobin's Q as a criterion of firm value, and found a positive relation between debt – assets ratio and Tobin's Q. In contrast, Olsen and Lange (2005) as well as Baker and Wurgler (2002) found a negative relation between Tobin's Q and capital structure.

Namazi and Shirzadeh (2005) studied the relation between capital structure and the profitability of the companies listed on Tehran Stock Exchange focusing on the type of industry. The results of the research confirmed a positive relation between capital structure and profitability. However, this relation is statistically weak. Hassan Pour-Bahabadi (2005) studied in his research the relation between the changes in capital structure and changes in the value of companies listed on Tehran Stock Exchange. Auto industry, part manufacture,
non-metal minerals, pharmaceuticals, and foodstuffs are four industries studied in this research. The results show that the changes in capital structure is only effective in the firm value of the companies engaged in the industry of non-metal minerals, and no relation has been reported in food industry, auto and part industry, and pharmaceuticals.

Jensen (1986) stated that managers would have a strong motivation for retaining cash in order to increase the assets under their control and enhance their precautionary power for making decisions on investments. Dittmar, Mahrt, and Smith (2007) argue that corporate governance affects firm value by influencing liquidity. For instance, one dollar of cash in the companies with weak corporate governance creates a value around 0.42 to 0.88 dollars, while this value exceeds two times in the companies with strong corporate governance.

Pinkowitz et al (2006) concluded based on his research that the relation between liquidity and firm value in the countries with weak support of investment is weaker than the firm value in other countries. Harford (1999) showed that the companies with more liquidity create more value. Boyle and Guthrie (2003) believe that high level of cash is required for potential investment. Indeed, cash fund reduces the costs of financing leading to an increase in the value of companies, and the number of high-risk investors, who create value. Chen (2008) argues that cash fund may lead to the investment in not profitable projects, which decline firm value. Lins and Kalcheva (2004) reported a negative relation between liquidity and firm value. The results of the research conducted by Isshagh et al (2009) show that there is no significant relation between internal structure of ownership and stock price, and saving additional cash has statistically no significant effect of the stock price of companies. However, financial leverage (debt – equity ratio) and fluctuations in profit are the factors decisive in the stock price of companies.

Sadegh Bayan (1998) studied the relation between the fund earned from operating activities and operating profit. The results of this research showed that there was no significant relation between cash flow of operating activities and operating profit.

RESEARCH HYPOTHESIS

Considering the theoretical framework and the researches, the hypotheses of this research are provided in the following:

Main Hypothesis 1: There is a significant relation between the ownership structure and the market value of the companies in the index of 50 most active firms of Tehran Stock Exchange.

Sub-Hypothesis 1-1: There is a significant relation between the percent of stock held by institutional investors and the market value of the companies in the index of 50 most active firms of Tehran Stock Exchange.

Sub-Hypothesis 1-2: There is a significant relation between stock concentration and the market value of the companies in the index of 50 most active firms of Tehran Stock Exchange.

Main Hypothesis 2: There is a significant relation between capital structure and the market value of the companies in the index of 50 most active firms of Tehran Stock Exchange.

Main Hypothesis 3: There is a significant relation between liquidity and the market value of the companies in the index of 50 most active firms of Tehran Stock Exchange.
RESEARCH METHOD

For the purpose of this research, which is of applied type, a correlation method has been used. Moreover, this research is semi-empirical as historical data are used.

The statistical population of this research includes the companies in the index of 50 most active firms of Tehran Stock Exchange. The statistical population includes all companies in the index of 50 most active firms listed on Tehran Stock Exchange during the period from 2001 to 2011.

The data and information required for this research have been obtained from the official websites of Tehran Stock Exchange including the website of Research and Development of Islamic Studies (RDIS), the Stock Exchange Information and Service Company, Rah Avard Nowin Software. The preliminary calculations have been done in Excel. Thereafter, SPSS program has been applied for the final analyses. To test the hypotheses of this research, multivariate regression model has been used:

\[
MV_i = \alpha_0 + \alpha_1 \times INST_{i,t} + \alpha_2 \times CENT_{i,t} + \alpha_3 \times CAPS_{i,t} + \alpha_4 \times LIQ_{i,t} + \alpha_5 \times Tobin's \ Q_{i,t} + \alpha_6 \times DPR_{i,t} + \epsilon_{i,t}
\]

In the above model, \(MV_i\) is the dependent variable, which is calculated as follows:

\(MV_i\) is the market value of the company \(i\) at the time \(t\). This dependent variable is calculated by multiplying stock price at the end of the year by the number of the ordinary shares published by the company.

\(INST_{i,t}\), \(CENT_{i,t}\), \(CAPS_{i,t}\), and \(LIQ_{i,t}\) are the independent variables of this research used proportionally for the test of the hypotheses. These variables are calculated as follows:

\(INST_{i,t}\) is the percent of the share held by the institutional investors of the company \(i\) at the time \(t\), and it is calculated by dividing the number of shares held by the institutional investors (including banks, investment companies, insurance companies, government, public and semi public organizations, and in general legal entities as stockholders) by the total number of the shares published by the company.

\(CENT_{i,t}\) is the concentration percent of the shares of the company \(i\) at the time \(t\), and it is calculated using the ratio of the saved stocks owned by the most major stockholder to the total share of the company.

\(CAPS_{i,t}\) is the capital structure of the company \(i\) at the time \(t\), and it is calculated using the ratio of the total debt of the company to the book value of the equity as the index of capital structure.

\(LIQ_{i,t}\): the liquidity of the company \(i\) at the time \(t\), as stated in the balance sheet at the end of the fiscal year.

Tobin's Q, DPR, and TANG have been used as the control variables of the research; where Tobin's Q is the variable for growth opportunities, DPR for the control of the profitability of the companies, and TANG for the control of the pledging ability of the companies. These variables are calculated as follows:
Tobin's Q\(_{i,t}\) of the company \(i\) at the time \(t\) is calculated using the ratio of market value (the product of multiplying stock price at the end of the fiscal year by the number of ordinary stocks) divided by the book value of the equity of the company.

DPR\(_{i,t}\) is the percent of the dividends of the company \(i\) at the time \(t\).

TANG\(_{i,t}\) is the ratio of the tangible fixed assets of the company \(i\) at the time \(t\), and it is calculated using the ratio of the tangible fixed assets to the book value of the total assets of the company.

THE TEST RESULTS OF THE HYPOTHESES

Main Hypothesis 1: There is a significant relation between the ownership structure and the market value of the companies. The results of the main hypothesis 1 and its sub-hypotheses have been set forth in the table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Significance Level</th>
<th>Standardized Coefficient</th>
<th>T-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept Elevation</td>
<td>0.000</td>
<td>---</td>
<td>34.737</td>
</tr>
<tr>
<td>INST</td>
<td>0.000</td>
<td>0.235</td>
<td>3.769</td>
</tr>
<tr>
<td>CENT</td>
<td>0.002</td>
<td>-0.186</td>
<td>-3.102</td>
</tr>
<tr>
<td>Tobin's Q</td>
<td>0.000</td>
<td>0.407</td>
<td>6.822</td>
</tr>
<tr>
<td>DPR</td>
<td>0.000</td>
<td>0.263</td>
<td>4.512</td>
</tr>
<tr>
<td>TANG</td>
<td>0.000</td>
<td>0.250</td>
<td>4.424</td>
</tr>
</tbody>
</table>

The significance level equal to 0.000 and F-Statistic equal to 29.369 confirm the significance of this model in general. The percent of the shares held by the institutional stockholders and share concentration are significant at the confidence level of 99%, and this indicates that there is a significant relation between these two variables and the dependent variable (market value of the company). As the coefficient and t-statistic of the share percent held by the institutional investors has a plus sign, it can be claimed that this variable has a positive and significant relation with the market value. In contrast, as the value of the coefficient of the variable share concentration is negative, it is concluded that there is a negative and significant relation between share concentration and market value of company. In general, as each variable of the ownership structure is significant, the main hypothesis 1 and its sub-hypotheses are confirmed and it is proved that ownership structure has a significant effect on the market value of the studied companies.

Main Hypothesis 2: There is a significant relation between capital structure and the market value of the companies. To test the main hypothesis 2, the relation between capital structure (i.e. the ratio of the total debts to the book value of equity) and the market value of the companies has been studied. The significance level of the model equal to 0.000 and F-statistic equal to 29.257 confirm the significance of the model. According to the data of the following table, it is concluded that capital structure has not significant relation with the market value of the companies. Therefore, the second main hypothesis is rejected.
Table 2. The Test Results of the Hypothesis 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Significance Level</th>
<th>Standardized Coefficient</th>
<th>T-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept Elevation</td>
<td>0.000</td>
<td>---</td>
<td>36.068</td>
</tr>
<tr>
<td>CAPS</td>
<td>0.615</td>
<td>-0.032</td>
<td>-0.504</td>
</tr>
<tr>
<td>Tobin's Q</td>
<td>0.000</td>
<td>0.474</td>
<td>7.825</td>
</tr>
<tr>
<td>DPR</td>
<td>0.000</td>
<td>0.266</td>
<td>4.079</td>
</tr>
<tr>
<td>TANG</td>
<td>0.000</td>
<td>0.266</td>
<td>4.079</td>
</tr>
</tbody>
</table>

F-Stat: 29.257
R Square: 0.409

Resource: Researcher's own findings

Main Hypothesis 3: There is a significant relation between liquidity and the market value of the companies. The test results of the main hypothesis 3 have been provided in the following table 3. The significance level is equal to 0.000 and F-statistic equal to 46.205, which can be use accordingly. The liquidity is significant at the confidence level of 99%. As the value of t-statistic and coefficient of the liquidity are positive, it can be concluded that the liquidity has a positive and significant effect on the market value of the companies. Therefore, this hypothesis is confirmed.

Table 3. The Test Results of the Hypothesis 3

<table>
<thead>
<tr>
<th>Variable</th>
<th>Significance Level</th>
<th>Standardized Coefficient</th>
<th>T-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept Elevation</td>
<td>0.000</td>
<td>---</td>
<td>45.706</td>
</tr>
<tr>
<td>LIQ</td>
<td>0.000</td>
<td>0.425</td>
<td>7.710</td>
</tr>
<tr>
<td>Tobin's Q</td>
<td>0.002</td>
<td>0.425</td>
<td>8.235</td>
</tr>
<tr>
<td>DPR</td>
<td>0.000</td>
<td>0.264</td>
<td>4.877</td>
</tr>
<tr>
<td>TANG</td>
<td>0.016</td>
<td>0.135</td>
<td>2.438</td>
</tr>
</tbody>
</table>

F-Stat: 46.205
R Square: 0.519

Resource: Researcher's own findings

CONCLUSION

In this research, three main hypotheses and two sub-hypotheses are studied. The test of the hypothesis 1 studied the relation between ownership structure and market value of the companies. For the purpose of this hypothesis, two sub-hypotheses have been provided. The test results of these hypotheses show that there is a positive and significant relation between institutional stockholders and the market value of the studied companies. The results are consistent with the results of the studies conducted by Karathansis and Drakos (2004) and Hasas Yeganeh et al (2008). However, they are inconsistent with those of the research conducted by Gugle et al (2008), who found a negative relation between institutional ownership and performance. Moreover, the results of the sub-hypothesis on the concentration of ownership show that there is a negative relation between this variable and the market value of the studied companies. This results is inconsistent with that of the study of Kapopoulos and Lazaretou (2007), and Mahdavi and Meidari (2005).
According to the test results of main hypothesis 1 and its sub-hypotheses, it can be concluded that in the companies of the index of 50 most active firms, institutional investors act as professional investors and have positively an effective control over the conducts of the directors of their companies; while, the concentration of shares has a negative effect on the market value of the same companies, and therefore it can be concluded that the concentration of share and indeed the main shareholders of these companies are not successful in the control of the performance of the directors and managers of these companies.

In the main hypothesis 2, the relation between capital structure and market value of the companies listed in the index of 50 most active firms has been studied. The results of such a study show that the capital structure has not statistical relation with the market value of these companies. These results are inconsistent with those of the research of Isshagh et al (2009), Namazi and Shirzadeh (2005).

In the hypothesis 3, the relation between liquidity and market value has been studied. The results of this study show that there is a positive and significant relation between the liquidity and market value of the studied companies. This result is consistent with the results of many researches including those conducted by Harford (1999) and Isshagh et al (2009). Therefore, it can concluded that the saving of additional funds in company can encourage the directors of these companies to invest in potentially profitable projects and this investment leads to the improvement of the performance and increase in the market value of such companies.

RECOMMENDATIONS FOR FUTURE RESEARCHES

Considering that, there is a positive relation between institutional investors and firm value, the potential investors are recommended to use this factor as a positive one for the purchase of shares. Moreover, as there is a negative relation between the concentration of shares and market value of companies, it is recommended that investors regard this factor as a negative one in selecting the companies, whose shares are offered for sales. The policymakers of the stock exchange are also required to reduce the share concentration of companies. Accordingly, the diversity of institutional investment should be regarded as a criterion for the selection of shares with higher value. The other results of the test conducted on the hypotheses show that there is a positive relation between liquidity and firm value. Therefore, the directors of companies are recommended to keep optimal amount of liquidity for future payments, and investment in profitable projects. Investors are also recommended to regard this factor (liquidity) as a positive factor for the purchase of shares.

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