Investigating the Relationship between Financial Growth and Strength with Leverage Ratios of Companies Listed in Tehran Stock Exchange

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Abstract

The aim of this study is to investigate the relationship between financial growth and strength with leverage ratios of companies listed in Tehran Stock Exchange. Sales growth, profit growth, and financial strength as independent variables and leverage ratio was used as dependent variable. four different ratios were used to assess the company's financial leverage. Financial strength has been measured by Altman bankruptcy model. Data related to 102 companies listed in Tehran Stock Exchange for the period 2002-2011 have been used as sample to test the hypotheses and examine the effect of independent variables and and leverage ratio. Data were analyzed by combined data analysis. panel data test were used to estimate the suitable models of hypotheses test in combined data. The results indicate a correlation between sales growth, profit growth, asset growth and financial strength with a total debt leverage ratio and the model can be used to measure the relationship. In model of total debt ratio, there is negative and reverse relationship between the growth variables and financial strength with leverage ratios, i.e. increasing and improving financial growth and strength will reduce debt ratio and ultimately the company's financial leverage. Results of this research can be used by financial analysts and other users of financial information in their decisions making.

Keywords: Financial Leverage, Financial Strength, Sales Growth, Profit Growth, Asset Growth.
Introduction

Capital market development is one a central pillar of economic growth and development in every society. In this regard, after the end of Iran–Iraq War, Iran's capital market has experienced a relatively large changes including major ups and downs in stock, the large volume of offered shares of state-owned companies through Tehran Stock Exchange and increase the number of companies listed on the stock exchange. The importance of capital market in economic development and effective evolutions in stock market made researchers to conduct much research being about Tehran Stock Exchange. (Bagher Zadeh, 2003). Investors should do extensive researches when investing in common stock. In other words, they must survey many factors when investing, because they converts own assets into common stock. (Metan, et al., 2010)

The capital structure of company is an early warning in relation to the company's financial hardship and it is necessary to concern the factors affecting company’s performance in corporate strategic planning. (De Angelo and Maslis, 2005)

Nowadays, ranking the companies in term of credit depends largely on their capital structure and in fact the production and service provision is dependent on funding supply and consumption. (Mayers and Susman , 2007)

The most important purpose to determine the capital structure is to specify the composition of financial resources in order to maximize shareholder wealth. Capital is an important source to make decisions in the financial process along with other resources. Corporates need capital to be established and needs more capital for development. Needed funds is supplied by a variety of sources and in various forms, but the total investment can be placed in two main groups: debt and equity. (Jahankhani and Shori, 2010, P.p 317-319)

Several factors can influence on the leverage ratio and the growth of the company is one of them. greater company growth rate increases opportunities for investment. Therefore, these companies prefer to use more debt. The second key factor is the tax status of the company. Most important reason to use the debt is that the interest expense is accepted by the Ministry of Finance. The third factor that should be considered is financial flexibility or the ability to raise capital reasonably in unflavorable situation. (Bei and Wardana , 2012)

Several factors are involved in choosing capital structure and financial leverage levels including the value of collateral assets (structure of asset), non-debt tax shield, rate of growth, monopoly, industry classification, company size, income instability and profitability. Growth of company is a controversial factor, when the capital structure or financial leverage is determining. Growth of company is one of indicators to evaluate the company’s activity and is defined as annual change percentage in total assets, sales and operating profit. (Jahankhani and Shori, 2010, p. 360)

In this study, we are looking to answer the following question:
Is there any correlation between growth of company and leverage ratio of listed companies in Tehran Stock Exchange?
Is there any correlation between financial strength and financial leverage of listed companies in Tehran Stock Exchange?
In this study, the theoretical foundations of variables such as growth and financial strength and their effect on leverage ratios have been investigated.

Kordestani and Pirdavari (2012) examined the capital structure and empirical test of market timing theory. Based on market timing theory, companies determine the time of share issuance based on the stock price in the market. The manager try to issue the share when market value ratio is higher than book value. Managers believe that the valuation of company’s share is more than fact sometimes and share issuance is a benefit for companies. Therefore, temporary fluctuations in market can change the capital structure permanently.

Haghighat and Bashiri (2012) examined the effect of the company's capital structure and financial flexibility of the exchange’s period of 2007 to 2008. Financial flexibility is defined through the stages of the life cycle of birth, growth and maturity and multiple regression method was used to analyze data.

Victor Gonzales (2013) examined the effect of financial leverage on performance of 10,375 companies in 39 countries. Results of the survey show that the performance of the company with more leverage compared to its competitors is reduced considerably due to the cost of the financial crisis. However, according to legal origin effect in civil law countries such as France is different. Protection of shareholder rights and powers of law enforcement is the main variable in explaining leverage effect on performance.

Liuf (2013) examined 428 companies from Canada to survey the effect of risk and bankruptcy on the debt ratio and return on equity. Research results showed that the risk of bankruptcy has a positive and significant relationship with a debt ratio. Also, the risk of bankruptcy is negatively correlated with stock returns.
Conceptual Model of Study

- **Leverage ratio**
  - Total debt ratio
  - Debt to equity ratio
  - Long term debt ratio to total asset
  - Long term debt to fixed asset

- **Growth of company**
  - Profit growth
  - Sale growth
  - Asset growth

- **Financial strength**
  - Liquidity
  - Asset returns
  - Profitability
  - Debt management
  - Asset management
Research Methodology:

This study is applied in term of purpose. Because by studying the factors in the Tehran Stock Exchange, try to accept or reject hypotheses and the results can be used for natural and legal persons and is analytical in term of nature to explores the correlation between variables. In order to analyze the data, the descriptive and inferential statistics are used. Statistical society study are companies listed on the Tehran Stock Exchange from 2002 to the end of 2011 for ten years. In this paper, combined data analysis was used to test the hypotheses.

Findings:
The first sub-test the first hypothesis
H0: There is no correlation between the growth of the company and total debt ratio in Tehran Stock Exchange.
H1: There is correlation between the growth of the company and total debt ratio in Tehran Stock Exchange

Testing the first hypothesis of first subsidiary

(Total debt ratio) lev  = A_o + B_1 SG + B_2 PG + B_3 AG  + ε

<table>
<thead>
<tr>
<th>Significant level</th>
<th>t Statistic</th>
<th>Coefficient</th>
<th>Symptom</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>-3.94</td>
<td>-3.429</td>
<td>SG</td>
<td>Sale growth</td>
</tr>
<tr>
<td>0.036</td>
<td>-3.72</td>
<td>-10.29</td>
<td>PG</td>
<td>Profit growth</td>
</tr>
<tr>
<td>0.0026</td>
<td>-3.07</td>
<td>-4.47</td>
<td>AG</td>
<td>Asset growth</td>
</tr>
<tr>
<td>0.000</td>
<td>-6.48</td>
<td>-4.87</td>
<td>C</td>
<td>Constant value</td>
</tr>
<tr>
<td>8.26</td>
<td>t Statistic</td>
<td>0.29</td>
<td></td>
<td>Adjusted determination coefficient</td>
</tr>
<tr>
<td>0.000</td>
<td>Significant level</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results showed that the model is optimal to test the hypothesis. F Statistic (8.26) and significant level (0.000) confirms the significance of the model to test the hypothesis. The results of the Brosh - Pavgan test also shows the lack of co-correlation between the residuals. Adjusted coefficient of determination is 0.29. sale growth, profit growth and asset growth variables as the independent variable and long-term debt ratio are known as the dependent variable in the study. Sale growth variable according to significance level (0.000) in the above...
table is related negatively and reverse to total debt ratio. According to the results table first subhypothesis based on the correlation between sales growth and total debt ratio of listed companies in Tehran Stock Exchange is accepted. profit growth Variable due to its significance level (0.036) in the above table has negative and reverse correlation to total debt ratio. According to the results of table, first hypothesis of second subsidiary based on the correlation between profit growth and total debt ratio of listed companies in Tehran Stock Exchange is accepted.

**Testing the first hypothesis of second subsidiary**

H0: There is no correlation between the growth and debt to equity ratio in Tehran Stock Exchange.

H1: There is correlation between the growth and debt to equity ratio in Tehran Stock Exchange.

<table>
<thead>
<tr>
<th>significant level</th>
<th>t Statistic</th>
<th>Coefficient</th>
<th>Symptom</th>
<th>Vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.249</td>
<td>-0.3732</td>
<td>-1.5888</td>
<td>SG</td>
<td>Sale growth</td>
</tr>
<tr>
<td>0.000</td>
<td>-0.24185</td>
<td>-0.98</td>
<td>PG</td>
<td>Profit growth</td>
</tr>
<tr>
<td>0.001</td>
<td>-3.48</td>
<td>-3.521</td>
<td>AG</td>
<td>Asset growth</td>
</tr>
<tr>
<td>0.067</td>
<td>1.849</td>
<td>0.93</td>
<td>C</td>
<td>Constant value</td>
</tr>
</tbody>
</table>

Results showed that the model is optimal to test the hypothesis. F Statistic (17.74) and significant level (0.000) confirms the significance of the model to test the hypothesis. The results of the Brosh - Pavgan test also shows the lack of co-correlation between the residuals. Adjusted coefficient of determination is 0.24. sale growth, profit growth and asset growth variables as the independent variable debt to equity ratio are known as the dependent variable in the study. Sale growth variable according to significance level (0.000) in the above table is not related to debt to equity ratio. According to the results table first sub-hypothesis based on the correlation between sales growth and debt to equity ratio of listed companies in Tehran Stock Exchange is not accepted. profit growth Variable due to its significance level (0.000) in the above table has negative and reverse correlation to debt to equity ratio. According to the
results of table, first hypothesis of second subsidiary based on the correlation between profit growth and debt to equity ratio of listed companies in Tehran Stock Exchange is accepted.

**The first hypothesis of third subsidiary**

H0: There is no correlation between growth and long-term debt ratio to total asset in Tehran Stock Exchange.

H1: There is correlation between growth and long-term debt ratio to total asset in Tehran Stock Exchange.

**Testing the first hypothesis of third subsidiary**

Long Debt to asset = \( A_0 + B_1 SG + B_2 PG + B_3 PG + B_4 FS + \varepsilon \)

<table>
<thead>
<tr>
<th>Significant level</th>
<th>t Statistic</th>
<th>Coefficient</th>
<th>Symptom</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.021</td>
<td>-2.307</td>
<td>-1.179</td>
<td>SG</td>
<td>Sale growth</td>
</tr>
<tr>
<td>0.173</td>
<td>1.42</td>
<td>1.714</td>
<td>PG</td>
<td>Profit growth</td>
</tr>
<tr>
<td>0.157</td>
<td>0.87</td>
<td>2.882</td>
<td>AG</td>
<td>Asset growth</td>
</tr>
<tr>
<td>0.54</td>
<td>0.65</td>
<td>1.59</td>
<td>C</td>
<td>Constant value</td>
</tr>
<tr>
<td>6.854</td>
<td>t Statistic</td>
<td>0.34</td>
<td></td>
<td>Adjusted determination coefficient</td>
</tr>
<tr>
<td>0.000</td>
<td>Significant level</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results showed that the model is optimal to test the hypothesis. F Statistic (6.845) and significant level (0.000) confirms the significance of the model to test the hypothesis. The results of the Brosh - Pavgan test also shows the lack of co-correlation between the residuals. Adjusted coefficient of determination is 0.34. sale growth, profit growth and asset growth variables as the independent variable and long term debt ratio to total asset are known as the dependent variable in the study. Sale growth variable according to significance level (0.021 in the above table related to long term debt ratio to total asset negatively. According to the results table first sub-hypothesis based on the correlation between sales growth long term debt ratio to total asset of listed companies in Tehran Stock Exchange is accepted. profit growth Variable due to its significance level (0.173) in the above table has no correlation to long term debt ratio to total asset. According to the results of table, second hypothesis based on the correlation between profit growth and long term debt ratio to total asset of listed companies in Tehran Stock Exchange is not accepted.
The fourth sub-hypothesis test
H0: There is no correlation between growth and long-term debt ratio to fixed asset in Tehran Stock Exchange.
H1: There is correlation between growth and long-term debt ratio to fixed asset in Tehran Stock Exchange

Testing the first hypothesis of fourth subsidiary

<table>
<thead>
<tr>
<th>Significant level</th>
<th>t Statistic</th>
<th>Coefficient</th>
<th>Symptom</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.334</td>
<td>0.184</td>
<td>1.187</td>
<td>SG</td>
<td>Sale growth</td>
</tr>
<tr>
<td>0.413</td>
<td>-0.228</td>
<td>-1.327</td>
<td>PG</td>
<td>Profit growth</td>
</tr>
<tr>
<td>0.013</td>
<td>-2.43</td>
<td>-1.89</td>
<td>AG</td>
<td>Asset growth</td>
</tr>
<tr>
<td>0.000</td>
<td>-6.8</td>
<td>-4.87</td>
<td>C</td>
<td>Constant value</td>
</tr>
</tbody>
</table>

Results showed that the model is optimal to test the hypothesis. F Statistic (4.36) and significant level (0.038) confirms the significance of the model to test the hypothesis. The results of the Brosh - Pavgan test also shows the lack of co-correlation between the residuals. Adjusted coefficient of determination is 0.41. sale growth, profit growth and asset growth variables as the independent variable and long term debt ratio to fixed asset are known as the dependent variable in the study. Sale growth variable according to significance level (0.334) in the above table not related to long term debt ratio to fixed asset. According to the results table first sub-hypothesis based on the correlation between sales growth and long term debt ratio to fixed asset of listed companies in Tehran Stock Exchange is not accepted. profit growth Variable due to its significance level (0.413) in the above table has no correlation to long term debt ratio to fixed asset. According to the results of table, second hypothesis based on the correlation between profit growth and long term debt ratio to fixed asset of listed companies in Tehran Stock Exchange is not accepted. . asset growth Variable due to its significance level (0.013) in the above table has correlation to long term debt ratio to fixed asset negatively. According to the results of table, first hypothesis of fourth subsidiary based on the correlation between asset growth and long term debt ratio to fixed asset of listed companies in Tehran Stock Exchange is accepted.
The second hypothesis of first sub
H0: There is no correlation between financial strength and total debt ratio in Tehran Stock Exchange.
H1: There is correlation between financial strength and total debt ratio in Tehran Stock Exchange.

Testing the second hypothesis of first subsidiary

<table>
<thead>
<tr>
<th>Significant level</th>
<th>t Statistic</th>
<th>Coefficient</th>
<th>Symptom</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>-4.96</td>
<td>-3.36</td>
<td>FS</td>
<td>Financial strength</td>
</tr>
<tr>
<td>0.000</td>
<td>-6.48</td>
<td>-4.87</td>
<td>C</td>
<td>Constant value</td>
</tr>
<tr>
<td>10.29</td>
<td>t Statistic</td>
<td>0.18</td>
<td></td>
<td>Adjusted coefficient</td>
</tr>
<tr>
<td>0.000</td>
<td>Significant level</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results showed that the model is optimal to test the hypothesis. F Statistic (10.29) and significant level (0.000) confirms the significance of the model to test the hypothesis. The results of the Brosh-Pavgan test also shows the lack of co-correlation between the residuals. Adjusted coefficient of determination is 0.18. financial strength as the independent variable and total asset ratio are known as the dependent variable in the study. Financial strength variable according to significance level (0.000) in the above table related to total asset ratio negatively. According to the results table second hypothesis of first subsidiary based on the correlation between financial strength growth and total debt ratio of listed companies in Tehran Stock Exchange is accepted.

The second hypothesis of sub-second
H0: There is no correlation between financial strength and debt to equity ratio in Tehran Stock Exchange.
H1: There is correlation between financial strength and debt to equity ratio in Tehran Stock Exchange.
Testing the second hypothesis of second subsidiary

\[
\text{Debt to Equity} = A_0 + B_1 \text{SG} + B_2 \text{PG} + B_3 \text{PG} + B_4 \text{FS} + \varepsilon
\]

<table>
<thead>
<tr>
<th>Significant level</th>
<th>t Statistic</th>
<th>Coefficient</th>
<th>Symptom</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>-3.41</td>
<td>-2.89</td>
<td>FS</td>
<td>Financial strength</td>
</tr>
<tr>
<td>0.067</td>
<td>1.849</td>
<td>0.93</td>
<td>C</td>
<td>Constant value</td>
</tr>
<tr>
<td>14.69</td>
<td>t Statistic</td>
<td>0.23</td>
<td></td>
<td>Adjusted determination coefficient</td>
</tr>
<tr>
<td>0.000</td>
<td>Significant level</td>
<td>0.23</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results showed that the model is optimal to test the hypothesis. F Statistic (14.69) and significant level (0.000) confirms the significance of the model to test the hypothesis. The results of the Brosh - Pavgan test also shows the lack of co-correlation between the residuals. Adjusted coefficient of determination is 0.23. financial strength as the independent variable and debt to equity ratio are known as the dependent variable in the study. Financial strength variable according to significance level (0.000) in the above table related to debt to equity ratio negatively. According to the results table second hypothesis of second subsidiary based on the correlation between financial strength and debt to equity ratio of listed companies in Tehran Stock Exchange is accepted.

The second hypothesis of third sub

H0: There is no correlation between financial strength and long term debt to total asset in Tehran Stock Exchange.

H1: There is correlation between financial strength and long term debt to total asset in Tehran Stock Exchange
Testing the second hypothesis of third subsidiary

Long Debt to asset = A₀ + B₁ FS + ε

<table>
<thead>
<tr>
<th>Significant level</th>
<th>t Statistic</th>
<th>Coefficient</th>
<th>Symptom</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.002</td>
<td>-2.914</td>
<td>-1.59</td>
<td>FS</td>
<td>Financial strength</td>
</tr>
<tr>
<td>0.54</td>
<td>0.65</td>
<td>1.59</td>
<td>C</td>
<td>Constant value</td>
</tr>
<tr>
<td>6.854</td>
<td>t Statistic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.000</td>
<td>Significant level</td>
<td>0.28</td>
<td>Adjusted determination coefficient</td>
<td></td>
</tr>
</tbody>
</table>

Results showed that the model is optimal to test the hypothesis. F Statistic (6.845) and significant level (0.000) confirms the significance of the model to test the hypothesis. The results of the Brosh - Pavgan test also shows the lack of co-correlation between the residuals. Adjusted coefficient of determination is 0.28 financial strength as the independent variable and long term debt to total asset are known as the dependent variable in the study. Financial strength variable according to significance level (0.002) in the above table related to long term ratio to total asset negatively. According to the results table second hypothesis of third subsidiary based on the correlation between financial strength and long term ratio to total asset of listed companies in Tehran Stock Exchange is accepted.

The second hypothesis of fourth sub
H0: There is no correlation between financial strength and long term debt to fixed asset in Tehran Stock Exchange.
H1: There is correlation between financial strength and long term debt to fixed asset in Tehran Stock Exchange
Testing the second hypothesis of fourth subsidiary

<table>
<thead>
<tr>
<th>Significant level</th>
<th>t Statistic</th>
<th>Coefficient</th>
<th>Symptom</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>-3.98</td>
<td>-2.49</td>
<td>FS</td>
<td>Financial strength</td>
</tr>
<tr>
<td>0.000</td>
<td>-6.8</td>
<td>-4.87</td>
<td>C</td>
<td>Constant value</td>
</tr>
<tr>
<td>8.98</td>
<td></td>
<td></td>
<td></td>
<td>Adjusted determination coefficient</td>
</tr>
<tr>
<td>0.000</td>
<td>Significant level</td>
<td>0.198</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results showed that the model is optimal to test the hypothesis. F Statistic (8.98) and significant level (0.000) confirms the significance of the model to test the hypothesis. The results of the Brosh-Pavgan test also shows the lack of co-correlation between the residuals. Adjusted coefficient of determination is 0.198. Financial strength variable as the independent variable and long-term debt ratio to fixed rate to assets are known as the dependent variable in the study. Financial strength variable according to significance level (0.000) in the above table is related negatively and reverse to long-term debt ratio to fixed assets. According to the results of above table, second hypothesis of fourth subsidiary, based on the relationship between financial strength and long-term debt to fixed assets in listed on the Tehran Stock Exchange will be accepted.

Discussion and Conclusion first hypothesis

The first hypothesis was raised about the relationship between asset growth and leverage ratio and was analyzed using panel data. The results of this thesis showed a significant correlation between the sales growth and profit growth with total debt ratio. Aso, there is no significant correlation between sale growth and debt-to-equity ratio. But, there is significant correlation between profit growth and asset growth with debt-to-equity ratio. Also, there is correlation between sale growth and long-term debt ratio to total assets. There is no correlation between profit growth and asset growth with long-term debt ratio to total assets. Also, there is no correlation between the sales growth and profit growth with long-term debt to fixed assets. But, asset growth and ratio of long-term debt to fixed assets are related.
The first sub-hypothesis
The results of this thesis showed a correlation between sales growth with total debt ratio of listed companies in Tehran Stock Exchange. Kordestani and Najafi Omran (2008) evaluated the determinants factor of capital structure based on the theory of hierarchical and static balance out and showed a significant negative relationship between asset growth and debt ratio. Metan et al (2010) examined the characteristics of the company on the capital structure of listed companies in Tehran's Stock Exchange and showed a significant negative correlation between asset growth and capital structure.
So whatever assets growth increased, debt ratio is decreased and debt is used less. According to the results of the hypothesis, this model can be used to measure the relationship. first hypothesis of second subsidiary
The results of this thesis showed no correlation between asset growth and debt to equity ratio listed companies in Tehran Stock Exchange. The results of this study is not consistent to the research results of Keynes and Rivert (2006) and Bei and Wardana (2012) that there is relationship between the sale growth and debt to equity ratio. In other word, thare is no significant correlation between sale growth and debt to equity ratio.
First hypothesis of third subsidiary
The results of this thesis showed no correlation between asset growth and long-term debt ratio to total asset of listed companies in Tehran Stock Exchange. The results of this study is consistent to the research results of Bei and Wardana (2012) that there is negative relationship between the sale growth and leverage ratio. Higher sale growth decreases long-term debt ratio to total asset and debt is used less.
First hypothesis of fourth subsidiary
The results of this thesis showed no correlation between asset growth and long-term debt ratio to fixed asset of listed companies in Tehran Stock Exchange. The results of this study is not consistent to the research results of Bei and Wardana (2012) that there relationship between the sale growth and long-term debt ratio to fixed asset. In other word, there is no significant correlation between sale growth and long-term debt ratio to fixed asset.
The results of this thesis showed no correlation between profit growth and long-term debt ratio to fixed asset of listed companies in Tehran Stock Exchange. The results of this study is not consistent to the research results of Bei and Wardana (2012) and Hejazi and Jalali (2006) that there relationship between the sale growth and long-term debt ratio to fixed asset. In other word, there is no significant correlation between sale growth and long-term debt ratio to fixed asset.
The results of this thesis showed a correlation between asset growth and long-term debt ratio to of fixed assets of listed companies in Tehran Stock Exchange. The results of this study is not consistent to the research results of Bei and Wardana (2012) that there is no relationship between the growth of assets and long-term debt ratio to fixed assets, but the research results is consistent to result of Kordestanî and Najafi Omran (2008) and Metan et al (2010) about the relationship between asset growth and the long-term debt ratio to fixed assets.
In other words, there is a significant negative relationship between assets growth with long-term debt to ratio of fixed assets and increasing assets growth reduces the ratio of long-term debt to fixed assets and leverage ratio and debt is used less.

**The second hypothesis**
The second hypothesis was raised about the relationship between financial strength with leverage ratio and were analyzed using panel. The results of this thesis showed a correlation between financial strength and leverage ratio (total debt ratio, debt-to-equity ratio, the ratio of long-term debt to total assets, long term debt ratio to fixed assets) and correlation matter is negative, i.e., increasing financial strength reduces leverage ratio.

**The second hypothesis of first subsidiary**
The results of thesis showed a correlation between financial strength with total debt ratio of listed companies in Tehran Stock Exchange that this relationship is negative and reverse. Bei and Wardana (2012) in their study showed that financial strength is negatively associated with leverage ratio, so the findings of this study are consistent with the study. Therefore, increasing the financial strength lead to reduce debt ratio and debt is used less.

**The second hypothesis of second subsidiary**
The results of thesis showed a correlation between financial strength with long-term debt ratio to equity of listed companies in Tehran Stock Exchange that this relationship is negative and reverse. Bei and Wardana (2012) in their study showed that financial strength is negatively associated with leverage ratio, so the findings of this study are consistent with the study. Therefore, increasing the financial strength lead to reduce leverage ratio and debt is used less.

**The second hypothesis of third subsidiary**
The results of thesis showed a correlation between financial strength with long-term debt ratio to total assets of listed companies in Tehran Stock Exchange that this relationship is negative and reverse. Bei and Wardana (2012) in their study showed that financial strength is negatively associated with leverage ratio, so the findings of this study are consistent with the study. Therefore, increasing the financial strength lead to reduce long-term debt ratio to total assets and debt is used less.

**The third hypothesis of fourth subsidiary**
The results of thesis showed a correlation between financial strength with long-term debt ratio with fixed assets of listed companies in Tehran Stock Exchange that this relationship is negative and reverse. Bei and Wardana (2012) in their study showed that financial strength is negatively associated with leverage ratio, so the findings of this study are consistent with the study. Therefore, increasing the financial strength lead to reduce long-term debt ratio to fixed assets and debt is used less.
References
6. Namazi, M. Shirzadeh, J. 2005, to investigate the relationship between capital structure and profitability of companies listed on Tehran Stock Exchange (with an emphasis on industry type). Review of accounting and auditing, the twelfth year