The Effect of Management Entrenchment on the Equity Capital in Iran

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Abstract
Managerial Entrenchment means that management control a significant portion of the equity in the firm and his/her actions is inconsistent with maximizing aim of the Institute. This research examined the impact of managerial entrenchment on cost of capital stock by analyzing of changes in levels. The present paper examines the relationship between managerial entrenchment, systematic risk, rate of sales growth, the ratio of CEO and the cost of capital stock. Thus, 55 listed companies were analyzed during 2006-2010. The results indicate there is a significant relationship between the difference of managerial entrenchment period and cost of capital stock period and also significant relationship exists between rate of long sales growth, the ratio of CEO and the cost of capital stock, whereas, there is not significant relation between systematic risk and cost of capital stock.

Keywords: Managerial entrenchment, cost of capital stock, systematic risk, sales growth

1. Introduction
For several years, economists previously thought that all the groups working for a common goal in a corporation. However, since 30 years ago, many companies are faced with a conflict of interest between groups and Economists have proposed this conflict (Jensen and Meckling, 1976). These are generally known as "agency theory ". It is believed that both groups are going to maximize their benefits. Following, it is implying that this agent does not always work s to maximize profits. Shareholders can reduce their benefits by paying salaries and accept of expense for the monitoring agent to limit the aberrant activities of the agent. Managers are always looking to maximize their benefits and show their decisions are consist with benefit of owners. From point of Agency theory, managerial entrenchment allows managers to make personal gains from owners. Entrenchment is description of manager’s actions in the company.

In addition to hiring and firing the CEO, an important board function is to provide appropriate managerial incentives through well-designed compensation contracts. Here, we study how staggered elections affect the board’s effectiveness in performing this
function by analyzing the impact of classified boards on the sensitivity of CEO compensation to firm performance. Jensen and Murphy (1990), Yermack (2004), and several other papers define pay-performance sensitivity as the dollar change in CEO compensation per $1,000 change in shareholder wealth, estimated by regressing annual changes in CEO compensation on annual changes in shareholder wealth. Following these authors, we calculate the change in shareholder wealth for each year as the product of the percentage return to shareholders during the year and the firm’s market value at the end of the preceding year, both as reported in CRSP and adjusted for inflation.

An important measure of the degree of managerial entrenchment is the extent to which executive turnover is involuntary. By definition, non-entrenched managers are exposed to board and/or market-imposed discipline; thus, they are more susceptible to forced departure. Entrenched managers, in contrast, are less likely to leave involuntarily since they are less vulnerable to internal and external pressures. Goyal and Park (2002) measured managerial entrenchment using the combination of chief executive and chairman duties. They report that vesting both positions in the same individual significantly reduces the probability of forced CEO turnover. In this section, we provide insight into the entrenchment effects of staggered elections by examining the impact of classified boards on the incidence and performance sensitivity of involuntary CEO turnover.

2. Literature Review

When managers control a significant portion of the equity in the firm, their actions show that they do actions against with maximizing aim of the company. Behaviors such as set their bonuses and salary of employment, choose relatives and close friends as employee with significant benefits and provide a luxurious living arrangements that could harm the aims of company seriously. Morck et al, (1988) in their experimental research showed that managerial entrenchment reduces the value of the company. They approved that if stock’s price of manager increase, the value of the company will rise. Meanwhile, the actual value depending on what the management is reduced. They interpret this situation as that agency costs increase due to managerial entrenchment, it also can be increased by rising owning. Managers can view their investments that have the greatest value to replace with other managers. Jensen and Mackling (1976) described managers as brokers and shareholders as employer. In the other words, everyday decisions of the company are delegated to managers who are agents of the shareholders. The problem is that brokers do not necessarily favor the employer’s decision. One of the main assumptions of the theory is that the brokers do not make decision consistent with employers. In financial theory, the basic premise is that a primary goal of the company is to increase wealth of shareholders. However, it is not true in real world; it is likely that managers prefer to increase their benefits, such as reward and bonus. It has led to focus investments on projects, which have short-term benefits (particularly in cases like benefits and rewards associated with earnings) and do not pay attention to long-term projects that have benefits for shareholders. Concept of Agency Theory was expressed by Jensen and Mackling (1976) to explain the conflict of interests between owners and shareholders. Fama (1980) believed that separation of ownership and control by means of competition between corporations can monitor performance of individuals and organizations effectively. In this respect Demsetz and Lehn (1985), believed that
separation managers from owners who generally tend to increase their wealth would lead to increase efficiency. Fama and Jensen (1983) turned their attention to high rate of owning can create costs for the company. When owner who has low property in order to maximize firm value, he is influenced by market forces and the effective monitoring (convergence of interests hypothesis). In contrast, when the manager controls a significant part of the company's stock, he may show his behavior is completely inconsistent with the aim of maximizing value of the Institute.

Schooley and Barney (1994), using U.S. data, document a U-shaped relationship between dividend yield and CEO ownership. That study suffers from several limitations. CEO ownership is not always the best measure of insider ownership as in frequent cases board members other than the CEO hold significant amounts of a firm’s equity. Apart from using a relatively small sample size (235 firms against our sample in excess of 600 firms) Schooley and Barney’s (1994) data is confined to large firms with a small number of cases where the CEO holds substantial holdings (the average CEO ownership in their sample is 2.5% against our mean insider ownership of 16% in 1991 and 13% in 1996. Finally, they do not control for alternative monitoring mechanisms on managers that have been recognized in the literature.

Furthermore, no studies have analyzed, in the context of dividend policy, the possibility that beneficial and non-beneficial insider holdings may be conducive to entrenchment. Such possibility has, however, been suggested by previous research from Gordon and Pound (1990), Chang and Mayers (1992), who find evidence that manager’s voting control over Employees Stock Ownership Plans (ESOPs) can contribute to managerial entrenchment.

3. Methodology of Research

3.1 Sample of Research

In order to selecting the sample of the study, the following proxy is employed:

1. The company has not changed its activity or financial year during 2005 and 2010.
2. The end of fiscal year should be in March.
3. The required information should be available and there is no trading suspension more than 6 months.
4. The company should be as a manufacturing company.

According to the above mentioned conditions 55 companies are selected as sample of the study.

3.2 Research Variables

Independent variable:

\[ E_t \]: management entrenchment index (percentage of the ownership of board members who own more than 5% stake in the company)

Entrenchment: If managers have considerable control on company, they can increase their benefits. In overall, owning more shares has positive impact on the company. Rising or declining shares of managers is led to managers pay attention less than ever before. Managerial entrenchment identify based on percentage of manager’s owning in the company (Salehi and Berzegar, 2011)
The Effect of Management Entrenchment on the Equity Capital

LTG: rate of sales growth is calculated by the geometric mean of sales rate in a 5 years period
\[ \beta = \frac{\text{cov} (i \cdot m)}{\text{var} (m)} \]

\[ g = \left( \frac{S_{2010}}{S_{2006}} \right)^{1.5} - 1 \]

Where;
\[ S_{2010}: \text{amount of sales in year 2010;} \]
\[ S_{2006}: \text{amount of sales in year 2006.} \]

ONBOARD: ratio of chief executive officers in the board of directors.
INTS: institutional ownership (number of institutional ownership shares / total number of shares) of legal shareholders who own more than 5% of shares.
MVE: market value of equity (number of shares * closing price of each share)
ROA: Return on Investment (Net profit divided by total assets)
BM: book value of shares divided by its market value.
LEV: Leverage (total debt / total assets).

Dependent variable:

Cost of Capital Stock:
Impact of managerial entrenchment on cost of capital stock is investigated by analyzing level and changes.
\[ \Delta O_{it} = \alpha_0 + \alpha_1 \Delta E + \alpha_4 (\Delta FR) + \alpha_k (\Delta CG) + \eta_{it} \]
\[ O_{it} = \beta_0 + \beta_1 E_{it} + \beta_2 MVE_{it} + \beta_3 \text{LEV}_{it} + \beta_5 \text{BM}_{it} + \beta_6 \text{LTC}_{it} + \beta_7 \text{ONBOARD}_{it} + \beta_8 \text{INST}_{it} + \varepsilon_{it} \]

Where:
\[ \Delta : \text{Time changes.} \]
\[ \Delta O_{it} = \alpha_0 + \alpha_1 \Delta E + \alpha_4 \Delta \text{BETA}_{it} + \alpha_6 \Delta \text{LTC}_{it} + \alpha_7 \Delta \text{ONBOARD}_{it} + \eta_{it} \]

In last step, following model can be used for testing changes of level
\[ \Delta O_{it} = \alpha_0 + \alpha_1 \Delta E + \alpha_4 (\Delta FR) + \alpha_k (\Delta CG) + \eta_{it} \]

3.3 Hypotheses
As mentioned above, this research is investigating the impact of management entrenchment on cost of equity capital. Therefore, the following hypotheses were formulated:

H_1: There is significant relationship between management entrenchment and cost of capital stock.
H_2: There is a significant relationship exist between systematic risk and cost of capital stock.
H_3: There is a significant relationship between long-term growth rate and cost of capital stock.
H_4: There is a significant relationship between the ratio of chief executive officers and cost of capital stock.
H_5: There is a significant relationship exist between institutional ownership and cost of capital stock.
There is a significant relationship exist between market value of assets and cost of capital stock.

There is a significant relationship exist between the ratio of debt to assets and cost of capital stock.

There is a significant relationship between ratio of book value to ordinary stock and cost of capital stock.

4. Data Analysis and Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrenchment index</td>
<td>68.6339</td>
<td>73.10</td>
<td>21.92284</td>
<td>0.000</td>
<td>93.86</td>
</tr>
<tr>
<td>Ratio of debt to financial capital</td>
<td>0.6246</td>
<td>0.6335</td>
<td>0.2874</td>
<td>0.06</td>
<td>4.73</td>
</tr>
<tr>
<td>Ration of chief executive officers</td>
<td>0.6246</td>
<td>0.6335</td>
<td>0.2874</td>
<td>0.06</td>
<td>4.73</td>
</tr>
<tr>
<td>Institutional ownership</td>
<td>0.3704</td>
<td>0.40</td>
<td>0.24566</td>
<td>0.000</td>
<td>1.00</td>
</tr>
<tr>
<td>Market value of capital</td>
<td>0.7074</td>
<td>0.787</td>
<td>0.29289</td>
<td>0.000</td>
<td>1.80</td>
</tr>
<tr>
<td>Book value of ordinary shares divided by value of share (in millions)</td>
<td>2234807</td>
<td>383700</td>
<td>19019475</td>
<td>116644</td>
<td>312954000</td>
</tr>
<tr>
<td>Long term growth rate</td>
<td>1.1931</td>
<td>0.21</td>
<td>8.93997</td>
<td>-17.77</td>
<td>104</td>
</tr>
<tr>
<td>Cost of equity capital</td>
<td>0.1316</td>
<td>0.1334</td>
<td>0.13198</td>
<td>-1.00</td>
<td>0.59</td>
</tr>
<tr>
<td>Logarithm of assets</td>
<td>11.854</td>
<td>11.829</td>
<td>0.6232</td>
<td>9.49</td>
<td>13.72</td>
</tr>
</tbody>
</table>

Testing of hypotheses

In order to test the hypothesis a multivariable regression model was used. The following model was applied to test the hypothesis:

$$\hat{y}_{it} = \beta_0 + \beta_1 E_{it} + \beta_2 BETA_{it} + \beta_3 LTG_{it} + \beta_4 ONBOARD_{it} + \epsilon_{it}$$

The determination coefficient of the model obtained as 0.496 that means independent variables can explain about 50% of variations of dependent variable. According to the F-statistic (31.062) and p-value (0.000) we conclude that the model is significant and can be used for predicting the cost of equity capital. The following table shows the coefficients of the variables in the model:
Table: 2 Regression Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.121</td>
<td>4.175</td>
<td>0.000</td>
</tr>
<tr>
<td>Entrenchment index</td>
<td>0.000</td>
<td>0.809</td>
<td>0.419</td>
</tr>
<tr>
<td>Ratio of debt to financial capital</td>
<td>-0.03</td>
<td>-1.373</td>
<td>0.171</td>
</tr>
<tr>
<td>Ration of chief executive officers</td>
<td>0.027</td>
<td>1.036</td>
<td>0.301</td>
</tr>
<tr>
<td>Institutional ownership</td>
<td>0.039</td>
<td>1.511</td>
<td>0.132</td>
</tr>
<tr>
<td>Market value of capital</td>
<td>3.78E-16</td>
<td>1.119</td>
<td>0.264</td>
</tr>
<tr>
<td>Book value of ordinary shares divided by value of share</td>
<td>9.21E-05</td>
<td>2.041</td>
<td>0.042</td>
</tr>
<tr>
<td>Systematic risk</td>
<td>0.001</td>
<td>0.731</td>
<td>0.466</td>
</tr>
<tr>
<td>Long term growth rate</td>
<td>1.104</td>
<td>14.211</td>
<td>0.000</td>
</tr>
</tbody>
</table>

As it is shown in the above table, the coefficient of entrenchment is not significant in the model. So with the confidence level of 95% the hypothesis of existing relationship between entrenchment and cost of equity capital is rejected. In addition, just the two variables “Long term growth rate” and “Book value of ordinary shares divided by value of share” have significant impact on the dependent variable.

**Test of hypotheses of model variations by multiple regression**

The following model was applied, to test the hypothesis that there is a significant relationship between the variations of managerial entrenchment and variations of cost of equity capital:

\[
\Delta \sigma_{it} = \alpha_0 + \alpha_1 \Delta E_{it} + \alpha_4 \Delta \text{BETA}_{it} + \alpha_6 \Delta \text{LTC}_{it} + \alpha_7 \Delta \text{ONBOARD}_{it} + \eta_{it}
\]

The determination coefficient of the model obtained as 0.792 that means independent variables can explain about 79% of variations of dependent variable. According to the F-statistic (115.395) and p-value (0.000) we conclude that the model is significant and can be used for predicting the variations of cost of equity capital. The following table shows the coefficients of the variables in the model:
Table: 3 Regression Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.032</td>
<td>3.825</td>
<td>0.000</td>
</tr>
<tr>
<td>Entrenchment index</td>
<td>0.002</td>
<td>5.677</td>
<td>0.000</td>
</tr>
<tr>
<td>Ratio of debt to financial capital</td>
<td>0.067</td>
<td>3.636</td>
<td>0.000</td>
</tr>
<tr>
<td>Ration of chief executive officers</td>
<td>0.108</td>
<td>4.714</td>
<td>0.000</td>
</tr>
<tr>
<td>Institutional ownership</td>
<td>0.066</td>
<td>2.931</td>
<td>0.004</td>
</tr>
<tr>
<td>Market value of capital</td>
<td>4.27E-16</td>
<td>1.41</td>
<td>0.160</td>
</tr>
<tr>
<td>Book value of ordinary shares divided by value of share</td>
<td>7.21E-05</td>
<td>1.923</td>
<td>0.056</td>
</tr>
<tr>
<td>Systematic risk</td>
<td>0.001</td>
<td>1.054</td>
<td>0.293</td>
</tr>
<tr>
<td>Long term growth rate</td>
<td>0.935</td>
<td>12.212</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The above results show that the coefficient of entrenchment index is significant, so it has impact on the dependent variable. Furthermore, the coefficients of all the variables, expect “Systematic risk”, “Market value of capital” and “Book value of ordinary shares divided by value of share” are significant in the model.

5. Conclusion
This study examines the impact of managerial entrenchment, systematic risk, rate of CEO, firm Size, long-term growth rate, and the book value of common stock shares divided by market value of stock, institutional ownership and market capital as an independent variable and dependent cost of capital stock. The study analyzed managerial entrenchment on cost of capital stock. The results indicate there is a significant relationship between the difference of managerial entrenchment period and cost of capital stock period and also significant relationship exists between rate of long sales growth, the ratio of CEO and the cost of capital stock, whereas, there is not significant relation between systematic risk and cost of capital stock. Theory suggests that managerial entrenchment assess the impact on the company because investors feel more risk and greater cost controls are imposed in managerial entrenchment.

REFERENCES


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