Investigating the relationship between disclosure quality and capital structure on financial success

Ali Fadaei\textsuperscript{a} and Ali Esmailzadeh Maghari\textsuperscript{b}

\textsuperscript{a}M.Sc. Student, Department of Accounting, School of Management, UAE Branch, Islamic Azad University (IAU), Dubai, UAE
\textsuperscript{b}Assist. Prof. & Faculty Member, Department of Accounting, School of Management and Human Sciences, Islamshahr Branch, Islamic Azad University (IAU), Iran

Abstract

This paper presents an empirical investigation to study the effects of disclosure quality on capital structure in an Iranian auto industry. The proposed study considers the financial information of the biggest Iranian automaker named Iran Khodro. The study gathers the necessary information from 18 Iran Khodoro firms whose shares were accepted on Tehran Stock Exchange over the period 2008-2011. Using some statistical tests, the study has concluded that while there was not any meaningful relationship between disclosure quality and capital structure, market disclosure could influence positively on return on assets as well as return on equities.

1. Introduction

Nowadays, there have been tremendous efforts to learn more about the effects of various factors influencing on capital structure as well as disclosure quality (Biddle & Hilary, 2006; Li et al., 2008; Healy & Palepu, 2001). Akhtaruddin et al. (2009) studied empirically the extent of corporate governance and voluntary disclosure in firms listed in Malaysia. The governance factors investigated were board size, proportion of independent non-executive directors (INDs) on board, outside share ownership, family control, and percentage of audit committee members to total members on the board. They reported a positive association between board size and voluntary disclosures and between proportion of INDs and voluntary information. However, the extent of voluntary disclosure was negatively associated with family control, and the ratio of audit committee members to total members on the board was not associated with voluntary disclosures. Brounen et al. (2006) presented the results of an international survey among 313 CFOs on capital structure choice. They studied on how theoretical concepts were being implemented by professionals in the UK, the Netherlands,
Germany, and France and directly compared their results with previous results from the US and emphasized the presence of pecking-order behavior. They reported remarkably low disparities across countries, despite the presence of significant institutional differences. Moreover, the stated that private firms differ in many respects from publicly listed firms, e.g., listed firms use their stock price for the timing of new issues. Bushee (1998) investigated whether institutional investors could create or reduce incentives for corporate managers to reduce investment in research and development (R&D) to meet short-term earnings objectives. Many people argue that the frequent trading and short-term concentrate of institutional investors encourages firms to engage in such myopic investment behavior. Others believe that the large stockholdings and sophistication of institutions help firms focus on long-term value rather than on short-term earnings.

Bushee (1998) studied these competing views by examining whether institutional ownership influences R&D spending for companies, which could reverse a decline in earnings with a reduction in R&D. The results stated that managers were less likely to cut R&D to reverse an earnings decline when institutional ownership was relatively high, suggesting that institutions were sophisticated investors who typically serve a monitoring role in removing pressures for myopic behavior. However, the study reported that a large proportion of ownership by institutions that had high portfolio turnover and engage in momentum trading significantly could increase the probability that managers reduce R&D to reverse an earnings decline. These results indicated that high turnover and momentum trading by institutional investors could encourage myopic investment behavior when such institutional investors maintain extremely high levels of ownership in a firm.

Li et al. (2008) studied the relationship between intellectual capital disclosure and corporate governance variables, controlling for other firm-specific characteristics, for a sample of 100 UK listed firms. They measured intellectual capital disclosure by a disclosure index score, supported by word count and percentage of word count metrics to evaluate the variety, volume and focus of intellectual capital disclosure respectively. The independent variables comprise different forms of corporate governance structure including board composition, ownership structure, audit committee size and frequency of audit committee meetings, and CEO role duality. The results of the analysis based on the three measures of intellectual capital disclosure stated a significant association with all the governance factors except for role duality.

Ying and Zhengfei (2006) studied the effect of disclosure quality on the cost of equity capital using Chinese listed companies in Shenzhen stock market as research sample. They selected residual income model to measure the cost of equity capital, and built some index to represent the total disclosure quality and earnings disclosure quality of Chinese listed companies. They reported that for the sample of listed companies, which could conduct seasoned equity offerings in stock market, there was a negative relationship between disclosure quality and marginal cost of equity capital controlling $\beta$, company scale, B/M, leverage and asset turnover. This indicates that disclosure quality could impact the cost of equity capital in Chinese stock market. In addition, they reported that earnings smoothness and total disclosure quality were the main important factors on the cost of equity capital.

2. The proposed study

This paper presents an empirical investigation to study the effects of disclosure quality on capital structure in an Iranian Auto industry. The proposed study considers the financial information of the biggest automaker in Iran named Iran Khodro. The study gathers the necessary information from 18 Iran Khodoro firms whose shares where accepted on Tehran Stock Exchange over the period 2008-2011. Fig. 1 shows the structure of the proposed study.
2.1. Main hypothesis

The proposed study of this paper considers the following main hypotheses.

1. There is a relationship between disclosure quality and capital structure.

2. The relationship between disclosure quality and capital structure influences positively on financial success.

2.2. Sub-hypotheses

The proposed study also considers the following four sub-hypotheses,

1. Market value added influences positively on relationship between disclosure quality and capital structure influences.

2. Economic value added influences positively on relationship between disclosure quality and capital structure influences.

3. Return on equities influences positively on relationship between disclosure quality and capital structure influences.

4. Return on assets influences positively on relationship between disclosure quality and capital structure influences.

The study first tries to find out whether the data were normally distributed or not and this has accomplished through the implementation of Kolmogorov-Smirnov test summarized in Table 1 as follows,

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>KZ</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disclosure quality</td>
<td>90</td>
<td>2.609</td>
<td>0.171</td>
</tr>
<tr>
<td>Capital structure</td>
<td>90</td>
<td>3.993</td>
<td>0.121</td>
</tr>
<tr>
<td>Market value added</td>
<td>90</td>
<td>3.219</td>
<td>0.061</td>
</tr>
<tr>
<td>Economic value added</td>
<td>90</td>
<td>3.177</td>
<td>0.052</td>
</tr>
<tr>
<td>Return on assets</td>
<td>90</td>
<td>1.622</td>
<td>0.051</td>
</tr>
<tr>
<td>Return on equities</td>
<td>90</td>
<td>2.690</td>
<td>0.164</td>
</tr>
</tbody>
</table>

According to the results of Table 1, all variables are normally distributed when the level of significance is five percent. Therefore, the study uses Pearson correlation as well as stepwise regression method to examine the hypotheses of the survey.
3. The results

In this section, we present details of the implementation of Pearson correlation as well as stepwise regression test to examine two main hypotheses as well as four sub-hypotheses of the survey.

3.1 The main hypothesis

The implementation of the Pearson correlation test between disclosure quality and capital structure yields $r = -0.031$ with $\text{Sig.} = 0.772$. This means there is not any meaningful relationship between disclosure and capital structure when the level of significance is five or even ten percent and the first main hypothesis of the survey has not been confirmed.

3.2. The second hypothesis

To examine the second hypothesis of the survey, we examine four hypotheses.

3.2.1. The first sub-hypothesis

The first hypothesis investigates whether market value added could influence positively on relationship between disclosure quality and capital structure influences. The study uses regression analysis where market value added is dependent variable and disclosure quality and capital structure are independent variables. Table 1 shows the results of our survey.

Table 1
The summary of regression technique for testing the first sub-hypothesis of the survey

<table>
<thead>
<tr>
<th>Variable</th>
<th>Non-standard $\beta$</th>
<th>Standard $\beta$</th>
<th>t-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.728</td>
<td>2.273</td>
<td>0.025</td>
<td></td>
</tr>
<tr>
<td>Capital structure</td>
<td>6.735</td>
<td>0.137</td>
<td>1.294</td>
<td>0.199</td>
</tr>
<tr>
<td>Disclosure quality</td>
<td>5.703</td>
<td>0.018</td>
<td>0.173</td>
<td>0.863</td>
</tr>
</tbody>
</table>

$F$-value $= 0.846$ $\text{Sig.} = 0.433$ $R$-Square $= 0.019$

According to the results of Table 1, there is not any meaningful relationship between the dependent variable and any independent variables, capital structure and disclosure quality. Therefore, the first sub-hypothesis of the survey has not been confirmed.

3.2.2. The second sub-hypothesis

The second hypothesis investigates whether economic value added could influence positively on relationship between disclosure quality and capital structure influences. The study uses regression analysis where economic value added is dependent variable and disclosure quality and capital structure are independent variables. Table 2 presents the results of our survey.

Table 2
The summary of regression technique for testing the second sub-hypothesis of the survey

<table>
<thead>
<tr>
<th>Variable</th>
<th>Non-standard $\beta$</th>
<th>Standard $\beta$</th>
<th>t-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>4.775</td>
<td>2.270</td>
<td>0.026</td>
<td></td>
</tr>
<tr>
<td>Disclosure quality</td>
<td>1.460</td>
<td>0.109</td>
<td>1.018</td>
<td>0.311</td>
</tr>
<tr>
<td>Capital structure</td>
<td>6.408</td>
<td>0.008</td>
<td>0.071</td>
<td>0.944</td>
</tr>
</tbody>
</table>

$F$-value $= 0.519$ $\text{Sig.} = 0.597$ $R$-Square $= 0.012$

Based on the results of Table 2, there is not any meaningful relationship between the dependent variable and any independent variables, capital structure and disclosure quality. Therefore, the second sub-hypothesis of the survey has not been confirmed.
3.2.3. The third sub-hypothesis

The third hypothesis investigates whether return on equities could influence positively on relationship between disclosure quality and capital structure influences. The study uses regression analysis where return on equities is dependent variable and disclosure quality and capital structure are independent variables. Table 3 demonstrates the results of our survey.

Table 3
The summary of regression technique for testing the third sub-hypothesis of the survey

<table>
<thead>
<tr>
<th>Variable</th>
<th>Non-standard β</th>
<th>Standard β</th>
<th>t-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-20.567</td>
<td>-47.502</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Disclosure quality</td>
<td>3.957</td>
<td>0.998</td>
<td>133.433</td>
<td>0.000</td>
</tr>
<tr>
<td>Capital structure</td>
<td>0.101</td>
<td>0.004</td>
<td>0.540</td>
<td>0.591</td>
</tr>
</tbody>
</table>

F-value = 8909.9 Sig. = 0.000 R-Square = 0.995

The results of Table 3 indicate that while disclosure quality influences positively on return on equities when the level of significance is one percent, the capital structure has no meaningful impact on return on equities.

3.2.4. The fourth sub-hypothesis

Finally, the last sub-hypothesis investigates whether return on assets could influence positively on relationship between disclosure quality and capital structure influences. The study uses regression analysis where return on assets is dependent variable and disclosure quality and capital structure are independent variables. Table 4 demonstrates the results of our survey.

Table 4
The summary of regression technique for testing the fourth sub-hypothesis of the survey

<table>
<thead>
<tr>
<th>Variable</th>
<th>Non-standard β</th>
<th>Standard β</th>
<th>t-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2.021</td>
<td>1.936</td>
<td>0.056</td>
<td></td>
</tr>
<tr>
<td>Disclosure quality</td>
<td>0.346</td>
<td>0.458</td>
<td>4.838</td>
<td>0.000</td>
</tr>
<tr>
<td>Capital structure</td>
<td>-0.421</td>
<td>-0.088</td>
<td>-0.088</td>
<td>0.354</td>
</tr>
</tbody>
</table>

F-value = 12.288 Sig. = 0.000 R-Square = 0.220

The results of Table 4 indicate that while disclosure quality influences positively on return on equities when the level of significance is one percent, the capital structure has no meaningful impact on return on assets.

4. Conclusion

This paper has presented an empirical investigation to study the relationship between disclosure quality and capital structure. The study has also investigated whether or not the relationship between disclosure quality and capital structure influences positively on financial success. The study has accomplished among 18 firms associated with an Iranian automaker. The study has concluded that while there was not any meaningful relationship between disclosure quality and capital structure, market disclosure could influence positively on return on assets as well as return on equities.

Acknowledgement

The authors would like to thank the anonymous referees for constructive comments on earlier version of this paper.
References


