

# FIRM'S FACTORS INTEGRATION WITH DEBT OVERHANG IN KARACHI STOCK EXCHANGE

Sajid Iqbal Faculty of Management Sciences Indus International Institute DG-Khan

> Saima Nasir Chaudry Scholar at Muhammad Ali Jinnah University Islamabad

#### **ABSTRACT**

It is hypothesized in current study that firm's factors are significantly correlated with debt overhang. And it is aimed to investigate in current study. The data is acquired through convenience sampling and the sample range of the data is five years from 2010 to 2014. Thus, the study found working capital, leverage, profitability and firm size significant with debt overhang. While, dividend payout is found insignificant. Hence, managers have to pay serious attention to their company debt level to overcome debt overhang.

Key Terms: Working Capital, Leverage, Debt Overhang, Connivance Sampling, Profitability, Firm Size

#### INTRODUCTION

Debt overhang is a phenomenon where a firm has higher level of debt than the desired and can't borrow more for sustainable objectives. Despite, developing countries and their firm seriously experiences it since 1983. And it becomes the analogy that a corporation has to repay back where from where it has acquired. But inefficient pooling of resources and improper management & execution of capital leads corporation to overhang position.

Such overhang position resembles corporate position and competitiveness. Because such overhang is direct correlation with firm leverage and financial position by comprising and integrating corporate profitability, size, working capital and corporate performance as well. Despite the serious management of such factors by corporate controller bankruptcy occurs and ultimate corporate shut down. Moreover, such overhang is not only developing firms, it is also found in highly stylized firms as well based on corporate size (Krugman, 1988)

Therefore, such overhang is significantly correlated with corporate size because of corporate capital intensity (Shaheen and Malik, 2012, Iqbal et al., 2015, Iqbal, Chaudry & Iqbal, 2015, Iqbal et al., 2014). Thus, such capital intensity leads leverage as fluctuating that ultimate pinches corporate working capital and profitability as well (Cai & Zhang, 2010). For this concern debt overhang theory is used as theoretical framework. So, the proper management of debt overhang by pooling capital structure, efficient implication of working capital, increase of efficient sale and proper use of profitability leads to miner level of overhang. And such improper management of such factor's leads to serious overhang and ultimately corporate failure.

The objective of the study is to investigate debt overhang and the factors that are pinched by debt overhang i-e firm size, profitability, capital structure, dividend payout and working capital. Moreover, to identify that what kind of decisions are associated with management of debt overhang.

So relying on above citations and arguments the hypothesis of the study are as follows,

H1: There is positive relationship between current ratio and debt overhang

H2: There is positive relationship between quick acid ratio and debt overhang



H3: There is positive relation of leverage with debt overhang.

H4: There is negative relationship of dividend payout with debt overhang

H5: There is positive relationship of firm size with debt overhang

H6: There is positive relationship of firm profitability with debt overhang

#### RESEARCH METHODOLOGY

The current study is exploratory in nature and explores the relationship between company specific factors and debt overhang. The company specific factor's consists of capital structure, working capital, dividend ratio, firm profitability and firm size. Thus, these facets are incorporated as independent variables of the study. And the dependent variable is debt overhang.

The sample of the study consists of manufacturing sector of Pakistan. The servicing and financial sector of Pakistan is excluded because of capital structure variability. Thus, the study data is acquired through Karachi Stock Exchange Database, State bank of Pakistan database and open doors database. The sample range of the data consists of 05 years from Jan 2010 to Dec 2014. In nature the study data is panel and after removal of data outliers descriptive statistics, data normality, correlation test and fixed effect model is applied. So on the base of above variables and hypothesis study model is as follows

"DOH" = "
$$(+\beta 1(DR) + \beta 2(CR) + \beta 3(QAR) + \beta 4(P) + \beta 5(FS) + \beta 5(DP) + \epsilon$$
"

Thus, the measurement models of variables are as follows,

Table 01 (Variables Measurement)

| Abbreviation | Variable Name          | Proxies              | Measurement   |
|--------------|------------------------|----------------------|---|
| Υ            | Debt Overhang          | <b>Debt Overhang</b> | =Ds/Dr  |
| WC           | <b>Working Capital</b> | CR                   | = Current Assets/Current Liabilities                                    |
|              |                        | QAR                  | <ul><li>= Current Assets – Inventory<br/>/Current Liabilities</li></ul> |
| CS           | Capital Structure      | Debt Ratio           | = Total Debt/ Total Assets  |
| FS           | Firm Size              | Sales                | = Ln (Net Sale)   |
| Р            | Profitability          | Profitability        | = EBT/TA  |
| DP           | Dividend Pay Out       | Dividend Ratio       | =DPS/EPS  |

# **RESULTS & INTERPRETATAION**

Table 02 (Descriptive Statistics)

| Variable | Mean | Standard Deviation |  |  |
|----------|------|--------------------|--|--|
| CR       | 1.44 | 2.33               |  |  |
| QAR      | 1.01 | 1.58               |  |  |
| DR       | 0.99 | 1.71               |  |  |
| FS       | 2.31 | 11.44              |  |  |
| Р        | 0.77 | 1.1                |  |  |
| DP       | 2.34 | 3.42               |  |  |
| DOH      | 1.11 | 2.78               |  |  |



The table 02 explains descriptive statistics of the study where mean and standard deviation values are mentioned. Thus, the mean value of current ratio is 1.44 and 2.33 value of standard deviation. Quick acid ratio has mean value of 1.01 and standard deviation value is 1.58. While, capital structure has mean value as 0.99 and standard deviations value is 1.71. Firm size mean value is 2.31 and standard deviation value is 11.44. And profitability mean value is 0.77 and standard deviation value is 1.1. Moreover, dividend payout has mean value as 2.34 and standard deviation value is 3.42. The mean value of debt overhang is 1.11 and standard deviation value is 2.78 respectively.

Table 03 (Data Normality)

| Skewness | Kurtosis                            |
|----------|-------------------------------------|
| 0.15     | 0.11                                |
| 0.03     | 0.17                                |
| 0.12     | 0.13                                |
| 0.1      | 0.17                                |
| 0.19     | 0.07                                |
| 0.15     | 0.02                                |
|          | 0.15<br>0.03<br>0.12<br>0.1<br>0.19 |

The table 03 represents data normality that is predicted through kurtosis values that should lies between +02 and -02. Thus, the current ratio kurtosis value is 0.11, quick acid ratio value is 0.17, debt ratio value is 0.13, firm size value is 0.17, profitability value is 0.07 and dividend payout value is 0.02 respectively. Hence, all variables values are in positive range and less than +02 that shows original normality of data.

Table 04 (Data Reliability)

| No of Items | Cronbach's Alpha |
|-------------|------------------|
| CR          | 0.77             |
| QAR         | 0.72             |
| DR          | 0.84             |
| FS          | 0.69             |
| Р           | 0.76             |
| DP          | 0.71             |

The table 04 explains the results of study variables data reliability that is predicted by Cronbach's alpha. Thus, reliability value of current ratio is 0.77, quick acid ratio is 0.72, debt ratio is 0.84, firm size value is 0.69, profitability value is 0.76 and dividend payout value is 0.71 respectively. In above table firm size has less value than 0.71 but it is acceptable up to reliability matrix.



Table 05 (Correlation Analyses)

| Variables | CR    | QAR   | DR    | FS    | Р     | DP    | DOH |
|-----------|-------|-------|-------|-------|-------|-------|-----|
| CR        | 1     |       |       |       |       |       |     |
| QAR       | 0.44* | 1     |       |       |       |       |     |
| DR        | 0.34* | 0.37* | 1     |       |       |       |     |
| FS        | 0.29* | 0.33* | 0.37* | 1     |       |       |     |
| Р         | 0.41* | 0.45* | 0.48* | 0.53* | 1     |       |     |
| DP        | 0.59* | 0.61* | 0.64* | 0.64* | 0.68* | 1     |     |
| DOH       | 0.77* | 0.79* | 0.82* | 0.86* | 0.88* | 0.93* | 1   |

<sup>\*</sup>Significance level at 0.05

The table 05 explains the correlation analyses of the study. Thus, current ratio is correlated with quick acid ratio with 0.44 (p<0.05). Quick acid ratio is correlated with debt ratio with 0.34\* (p<0.05) and 0.37\* (p<0.05). Debt ratio is correlated with firm size with 0.34\* (p<0.05) and 0.37\* (p<0.05). Firm size is correlated with profitability with 0.29\* (p<0.05), 0.33\* (p<0.05) and 0.37\* (p<0.05). Profitability is correlated with dividend payout with 0.41\* (p<0.05), 0.45\* (p<0.05), 0.48\* (p<0.05), 0.53\* (p<0.05) and dividend payout is correlated with debt overhang as 0.77\* (p<0.05), 0.79\* (p<0.05), 0.82\* (p<0.05), 0.86\* (p<0.05), 0.88\* (p<0.05), 0.93\* (p<0.05) respectively.

Table 06 (Fixed Effect Model)

| Variables     | Proxy | В      | Significance | Prior    | Current  | Hypothesis |
|---------------|-------|--------|--------------|----------|----------|------------|
|               |       |        |              | Relation | Relation | Region     |
| Working       | CR    | 11.24  | 0.000        | Positive | Positive | Accepted   |
| Capital       | QAR   | 23.44  | 0.000        | Positive | Positive | Accepted   |
| Capital       | DR    | 0.9876 | 0.001        | Positive | Positive | Accepted   |
| Structure     |       |        |              |          |          |            |
| Firm Size     | FS    | 2.2431 | 0.000        | Positive | Positive | Accepted   |
| Profitability | Р     | 0125   | 0.000        | Positive | Positive | Accepted   |
| Dividend      | DP    | 0.0087 | 0.67         | Negative | Positive | Rejected   |
| Payouts       |       |        |              |          |          |            |

The table 06 explains the nature of relationship among variables and their matter of acceptance. While level of significance is on p. value < 0.05. So current ratio, quick acid ratio (working capital), debt ratio (capital structure), firm size and profitability of the company are found significant and dividend payout is found insignificant. Thus, the entire hypotheses are accepted and dividend payout hypothesis is rejected.

#### **CONCLUSION**

The proper management of corporate factors leads corporation to success. While, lack of understanding of managers and lack of interest to manage such factor's produces debt trap that arrests companies in debt overhang. Such debt overhang stops future financing sources and growth of the company. Thus, in current study debt overhang is investigated and is found significant with corporate factor's in Pakistani context as like historic investigations. But the managers have to pay serious concern on their financial strategies to manage and without it there is no way of continuous betterment.



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