Capital Structure and Firm Value: Indian IT Industry

Sayanth Sudheer
Department of Management
Amrita School of Business
Kochi, India

Vishnu N S
Department of Management
Amrita School of Business
Kochi, India

Abstract:- This research analyses how the capital structure affects the value of the firm of IT companies listed in the Bombay Stock Exchanges. The data was collected from financial statements of 20 IT companies listed in Bombay Stock Exchange from 2012 to 2021. Quantitative research method with panel regression was used in this study. This study has used Tobin's Q ratio as the dependent variable. This study has also used Short term debt, Long term debt, Equity, Size, Liquidity and profitability as the independent variable. The results of the analysis show that long term debt is not affecting the firm value and the short term debt has a negative relationship with the firm value. Equity is positively affecting the firm value and is significant. Size and profitability has positive and significant relationship. Liquidity has a negative relationship with the firm value. Indian IT companies should try to decrease the debt in their capital structure and increase the equity to maximize the firm value.

Keywords:- Capital Structure, Firm Value, Cost of Capital, Corporate Finance, IT Firms.

I.   INTRODUCTION

There has been many empirical researches on various factors that determines the relationship between the capital structure of the firm and the firm value. There is an ongoing debate on the impact of capital structure on firm in the field of corporate finance. The aim of the study is to understand how the capital structure helps in determining the firm value in the IT sector in a developing nation like India. The study analyses selected 20 IT companies listed in the BSE in India to establish the relationship between the value of the firm and capital structure.

Our motivation to study the IT industry is due to the characteristics of the IT industry. IT industry is a rapidly changing sector and innovation is required to keep up with the needs of the customers. [1] India's IT industry has contributed around 7.7% to the India's GDP and is expected to contribute 10% to GDP by 2025. In FY22, the top three Indian companies are expected to create 1.05 lakh job opportunities, due to the increasing demand for talent and skill. India's IT and business services market is projected to reach US $19.93 billion by 2025. There were very less number of studies done in services sector to understand the determinants of value of the firm with respect to its capital structure. The study has examined the impact of the firm size, liquidity, profitability, size of the firm and capital structure on the value of the firm. In the past studies, firm leverage has given mixed results. Firm leverage effect can vary based on the industry and the nature of the industry. The results of the study have given insights for challenging the theory of capital structure irrelevance. The market equity shows a positive relation with the value of the firm. The size and profitability has a positive relation with the value of the firm.

This study is among the firm study which examines the relation between value of the firm and capital structure over the time frame of 10 years for Indian IT sector companies. This study will help various stakeholders such as the top management of the firm, investors, governments etc. to understand the relation between the capital structure and firm value. Analyzing the impact of capital structure on the firm value can help the top managers in reexamining the capital structure to maximize the value of the firm. In the case of the investors, they could understand the firms better for investing. In the case of governments, they could understand the focus areas where they could have liberalized policies for the industry.

II.   LITERATURE REVIEW

[2] Modigliani and Miller are two Nobel prize winning economists who laid the foundation of the modern financial theory. Modigliani and Miller proposed the theory of modern capital structure in which they propose that capital structure decisions don't affect the value of the firm. They advocate that the value of the firm depends on the present value of the future earnings and the underlying assets. Capital structure is irrelevant in the situation where there is no transaction cost or tax. Later in 1963, Modigliani and Miller showed that the value of the firm with debt is much more than the value of the unlevered firm. When there is transaction cost and tax is involved increasing the debt helps to reduce the tax and increase the value of the firm.

[3] Myers and Majluf states that there doesn't exist an optimal capital structure for a company and explanation of how to prioritize between internal capital and borrowed capital when the firms require the capital. They suggest that capital structure decisions are not based on the optimal debt and equity ratio but on the priority of capital use. They suggest that firms should use internal sources of fund for their operations. When the firms fail to fund their operations using the internal sources they can raise debt. Equity should only be used as a last resort of source of fund. There exists an information asymmetry between managers and outsiders. Managers fails to convey the information on the quality of the existing asset. When firm tries to issue additional shares, it is viewed as a negative signal about the business prospects and value of the firm will come down.

[4] Kraus and Litzenberger said that the optimal financial leverage shows the trade-off between the tax benefits and the cost of bankruptcy.

[5] Spence (1973) shows that the good companies would give signals that they are performing well compared to others. The information can be disseminated through the financial statements. When the investors pick up the signal they assume that they will get good returns and buy the shares thus increasing the firm value.

[6] Cuervo (2002) suggests that when the firms increase their debt in capital structure the market views it as the firm have the ability to pay these obligations and have good business in future.

[7] Elsa & Sheila (2017) through their study found that there exists a significant relationship between capital structure and ownership structure and value of the firm with growth opportunity as mediating variable.

III. RESEARCH METHODOLOGY

A. Data

The data has been collected from 20 Indian IT sector companies which are listed on the BSE. The period of study ranges from a period of 2012-21. The secondary data for the study was taken from the financial reports from the company websites and BSE website. A total of 20 companies were selected for the analysis. The basis of selection was based on the availability of the data and also the listing of the firms prior to 2012.

Companies selected for the study

TCS	Black box
Wipro	Cybertech
Mindtree	Aptech
Mphasis	Ramco
GSS technology	Zensar
Infosys	Aurion pro
Cyient	Birla soft
Nucleus software	kelton tech
Sonata software	Brightcom
Oracle	HGS

B Variable Description

This study examines the effect of capital structure on value of the firm. The dependent variable is Tobin's Q ratio which has been used as a proxy for firm value in various studies. This study aims to test the Modigliani & Miller theory of capital structure irrelevance.
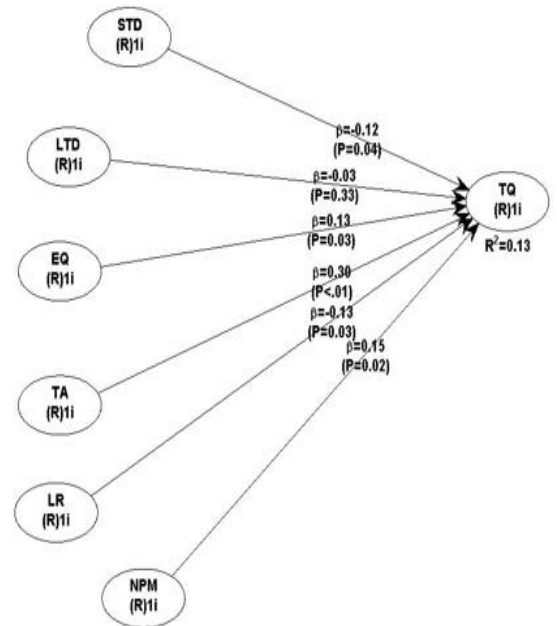

Fig 2. Linkage of firm qualities and capital structure on the firm value.

B 1) Dependent variable

The dependent variable in the study is value of the firm. Tobin's Q is taken as the proxy for the value of the firm. Tobin's Q ratio is used to determine whether the firm is undervalued or overvalued. It is calculated as ratio of market value of physical assets to net worth of the company.

B 2) Independent variables

1. **Short term debt:** In this study, we have taken short term financial liability to represent the short term debt. These are the financial obligations which should be settled within a year's time. Having a higher short term debt can cause liquidity issues to the firm thereby affect the value of the firm.
2. **Long term debt:** In this study, we have taken long term financial liability to represent long term debt. These are the financial obligation which are to be settled after one or more years. Having a higher long term debt tend to decrease the cash flow of the business as there would be interest payments. There is also a higher interest rate for long term debt. Thus this could affect the value of the firm.
3. **Equity:** In this study, we have taken total shareholder's fund to represent the equity. Having a higher level of equity can dissolve the control of the business.
4. **Total asset:** In this study, we have taken total asset to represent the size of the firm. Large firms are more likely to be more leverages because of the large amount of asset they possess.

5. **Liquidity:** In this study, we have taken current ratio as a measure of the liquidity of the firm.
6. **Profitability:** In this study, we have taken net profit margin as a measure of the profitability of the firm.

C Hypothesis
Hypothesis 1: Short term debt has a significant relationship with the value of the firm
Hypothesis 2: Long term debt has significant relationship with the value of the firm
Hypothesis 3: Equity has a significant relationship with the value of the firm
Hypothesis 4: Liquidity has significant relationship with value of the firm
Hypothesis 5: Size of the firm has significant relationship with the value of the firm
Hypothesis 6: Long term debt profitability has significant relationship with the value of the firm.

IV.   EMPIRICAL RESULTS

Variable	Coefficient	t-stat	P value
Intercept	2.669445637	8.608940734	2.57901E-15
STD	-0.124	-2.627217846	0.037
LTD	-0.032	-1.114800315	0.326
EQ	0.133	-2.652043916	0.028
TA	0.298	2.928831211	<0.001
LR	-0.129	-1.343661241	0.031
NPM	0.145	2.408923606	0.018

The result shows that the short term debt (coefficient -0.124) and firm value have a negative relationship and is significant. This negative relation is in line with the study conducted by Feidakis & Rovolis and Dang which has shown a negative relationship between leverage of the firm and the share price performance. This results are against the Modigliani Miller capital structure irrelevance theorem. The short term debt tends to decrease the firm value. Using more of short term debt will cause liquidity issues to the firm and the investors views the firms with no liquidity as a bad firm.

The long term debt (coefficient -0.032) has shown a negative relation but is insignificant. Equity (coefficient 0.133) has shown a positive and significant relationship with the firm value. The results show that in IT sector investors prefer to invest in companies which are having low or no debt. This result is inconsistent with the pecking order theory, where the author suggests that equity should be the last resort for raising capital.

The size of the firm (coefficient 0.298) has a positive relationship with the firm value. The results are also significant. Investors tend to value large companies more because of the large asset portfolio. Liquidity ratio (coefficient -0.129) has a negative relationship with firm value and it is significant. It is contradicting the view that the investors value companies with liquidity more. Net profit margin (coefficient 0.145) has a positive and significant relationship with the firm value. Investors values the profit making capacity of the firm.

The results show that short term debt, equity, total asset, liquidity ratio and profitability has significant relationship with the firm value. Thus we can conclude that the Modigliani Miller theory is irrelevant in the Indian IT industry. The study also shows that the pecking order theory is also irrelevant for the Indian IT industry. The result also sheds light on the capital structure theory and opposes its views on having more debt in the capital structure increasing the firm value.

V.   CONCLUSION

The study has contributed to the existing literature in various ways. This study has helped to have a better understanding of the factors which are affecting the Indian IT industry over a period of 10 years. There are many studies conducted on the manufacturing firm in this context thus there exist a scope for study in the service sector. Based on the findings, we can suggest the firm to utilize more of long term debt as it doesn't have a significant relation with the firm value. It could also help the firms to decrease their cost of capital and ensure capital for their operations and expansions. There are also tax benefits for using debt in the capital structure. Implications for the firms are to increase the return to the investors by using debt for operations. The limitation of the study is that the number of companies could have been more which could improve the results and precision. Another limitation is the availability of data was very less for many companies as there was data missing for many years. There is also a limitation of the companies being listed after 2013 which has reduced the sample of the study.

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