Research Paper Management

Relationship Between Corporate Financial Structure and Firm Value of Selected Companies in Tamil Nadu

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ABSTRACT

From canonical correlation analysis identifying the combined effect of financial structure variables along with firm characteristics on composite of firm values by MVA and Tobin's Q, it is concluded that the firm value tend to increase with high EPS, ROE when the use of debt fund in capital is less while liquidity is visibly higher in the case of automobile companies. A substantial increase in EPS and CR level and negligible increase in net sales to total assets tend to positively influence market valuation of sugar companies only relative to replacement cost. The shares of cement companies are valued less than its book value if use of debt fund in the capital is more when there has been a decline in asset level even if there has been an increase in turnover and profitability. Shares of chemical companies tend to be valued less than book value as well as relative to replacement cost if there has been a considerable decline in short-term debt fund while there has been a substantial increase in liquidity level and moderate increase in EPS while turnover declines marginally. Regarding pharmaceutical company, the valuation of shares is independent of the financial structure rather it is directly affected by the EPS, PM and DPS (profitability). For non-banking finance sector there corporate financial structure has positive influence on firm value.

KEYWORDS Capital structure, Financial Structure, Liquidity and profitability

Introduction

Financial Management of any corporate sector organization revolves around three major decisions, viz., Financing decisions, investment decisions and dividend decisions. Financing decisions are concerned with the source of finance, i.e. from where finances should be raised. There are basically two sources of finance – short-term and long-term. Short-term sources of finance generally include short-term loan, bills payable, bank overdraft, cash credit and advances, creditors, etc. The long term sources of finance of the company are also called permanent sources of fiancé. The capital structure of a company is determined by the long term sources of finance. Pandey (2005) stated that the term capital structure is used to represent the proportionate relationship between debt and equity. A business enterprise generally procures its permanent capital in the form of long term debt, preference shares, ordinary shares and reserves and surplus. There are individual components, which when taken together, would constitute a company's capital structure. The aim of capital structure management is the profit maximization or wealth maximization ensuring minimum cost of capital and maximum rate of return to the common shareholders. Chakraborty (1981) stated that a judicious mix of debt and equity securities would maximize the value of equity or common stock.

Statement of the Problem

According to pandey (2005), the capital structure decision of a firm, i.e., decision of corporate on their financial structure, is a significant managerial decision; influencing the shareholders return, and subsequently affecting the market value of the firm. Moreover, as stated by Bhaduri (2002), the issue of capital structure has remained neglected in developing countries though it has received substantial attention in the developed countries as developing economics have placed little importance to the role of the firms in economic development and the corporate sectors faced several constraints on their choices regarding sources of funds because of the fact that access to equity markets was either regulated, or limited due to the underdeveloped stock markets. Hence the present study is sought to investigate the factors determining of debt financing fund in corporate capital and effect of corporate finance structure on firm value in Indian context. Therefore the study mainly focused on the relationship between corporate financial structure and value of the firm of selected companies in Tamil Nadu.

Review of Literature

Mathew T. (1991) conducted a study to analyze the relationship between ownership structure and financial structure with a view to know whether the former has any impact on the latter. The analysis was based on three hypothetical relationships that exist between ownership structures on the one hand and unsystematic risk, non manufacturing expenses and profit appropriation policies on the other and their impact on the firm's financial structure. He concluded that, where the management's stake is high, the leverage would be low and vice – versa. He also found that there exists a significant relationship between ownership's structure and financial structure of firms.

Kodongo, Mokoaleli-Mokoteli and Maina (2014) have investigated the relationship between leverage and the financial performance of listed firm in Kenya using annual data for the period 2002 – 2011. They used Tobin's Q as proxy for firm value and found that leverage has no effect on Tobin's Q, our proxy for firm value. As the performance of firms depends on other things than just their capital structure, other variables are included as control variables in the models. In this respect, they have found that asset tangibility, sales growth and firm size are important determinants of profitability. Surprisingly, asset tangibility consistently has a negative relationship with profitability. For small firms, sales growth and firm size are found to the important factors driving firm value (Tobin's Q). Yet, the same variables do not appear to drive the value of large firms.

Objective of the study

1. To explore the relationship between corporate financial structure and firm value of selected companies in Tamil Nadu.
2. To examine the impact of corporate financial structure on firm value of companies by sectors in Tami Nadu
3. To offer valuable suggestions to improve the relations among the firm value of the selected companies in Tamil Nadu.

Hypotheses

Ho 1 There is no impact of liquidity, efficiency, profitability, firm growth and firm size on market value added.

Ho 2 There is no significant relationship between corporate financial structure and firm value of companies.

Research Methodology

Sources of Data: The study is predominantly based on secondary data. The data were collected from PROWESS 3.1 Version maintained by Centre for Monitoring Indian Economy Pvt. Ltd.

Period of the study: The study has covered the period of 10 financial years from the post- liberalisation era, namely from 2004-05 to 2013- 14.This period showed a transition in the Indian corporate sector due to liberalisation, privatization and globalization.

Sample and sample design: There are six sectors namely Automobile, Sugar, Cement, Chemical, Pharmaceutical, Non financial banking companies have been listed as the National stock exchange. This sectors which satisfied the following conditions were selected for the study.

(i) The sectors having a continuous data for 10 years from April 1, 2004 to March 31, 2014.

(ii) The sectors which had the positive network through the study period.

The study is confined to public and non financial companies across six sectors in Tamilnadu (excluding banking sectors) satisfied all the above parameters. Accordingly six sectors constitute the sample for the study, based on the purposive sampling technique.

Tools for analysis: The statistical techniques used for the study namely linear growth rate and annualized compound growth rate, the descriptive statistics such as Mean, Standard deviation and co efficient of variation. Financial analysis such as Market value added (MVA), and Tobin's Q in firm value also used for the study.

Result and discussions

Table - 1

Relationship between Firm Value and Financial Structure Variables of selected Automobile Companies of Canonical correlation model

Canonical Function	Canonical R	Canonical R^2 (Eigenvalue)	Chi-Square	df	p-Value	Wilks Lambda
0	0.9547	0.9114	118.38	20	0.0000	0.0390
1	0.7478	0.5592	29.90	9	0.0005	0.4408

Source: Secondary data

Table 1 show that, there are two canonical functions as the number of variables in minimum set – dependent is two. The both first and second functions are statistically significant with very low unexplained variance of 3.90 per cent (Wilk's λ = 0.0390, $\chi 2$ = 118.38, $p < 0.01$) and 44.08 per cent (Wilk's λ = 0.4408, $\chi 2$ = 29.90, $p < 0.01$) respectively. Further, the correlation between first pair of canonical variates is the highest at 0.9547 while the correlation between second pair of canonical variates, i.e., canonical variates after removal of first canonical correlation, is 0.7478. As the correlation between both first and two pairs of canonical variates is high, it is understood that both canonical correlation functions have made significant contribution to the explanation of the relationship between firm value and firm characteristics-financial structure variables.

Table - 2

Relationship between Firm Value and Financial Structure Variables of Selected Sugar Companies of Canonical correlation model

Canonical Function	Canonical R	Canonical R^2 (Eigenvalue)	Chi-Square	df	p-Value	Wilks Lambda
0	0.9301	0.8652	56.20	20	0.0000	0.1104
1	0.4258	0.1813	5.10	9	0.8254	0.8187

Source: Secondary Data

It can be observed from the table 2 informed that the correlation between first pair of canonical variants of the dependent (firm value) and independent (financial structure and firm characteristics) is very high at 0.9301 and statistically significant (Wilk's λ = 0.1104, $\chi 2$ = 56.20, $p < 0.01$). The second function, though ended with substantial correlation is not significant statistically. Hence, the first function is deemed for further interpretation as it has highly contributed to the relationship between first canonical variates of firm value and financial structure – firm characteristics

Table - 3

Relationship between Firm Value and Financial Structure Variables of selected Cement Companies of Canonical correlation model

Canonical Function	Canonical R	Canonical R^2 (Eigenvalue)	Chi-Square	df	p-Value	Wilks Lambda
0	0.9924	0.9849	99.71	22	0.0000	0.0008
1	0.9729	0.9465	40.99	10	0.0000	0.0535

Source: Secondary Data

It is seen from the table 3 displays that both canonical correlation functions are highly significant, the canonical loadings of the dependent and independent variables with respective canonical variates are used to explain the degree of relationship between individual variables in two set.

Table – 4

Relationship between Firm Value and Financial Structure Variables of Selected Chemical Companies of Canonical correlation model

Canonical Function	Canonical R	Canonical R^2 (Eigenvalue)	Chi-Square	df	p-Value	Wilks Lambda
0	0.9731	0.9469	61.26	20	0.0000	0.0146
1	0.8510	0.7243	18.68	9	0.0281	0.2757

Source: Secondary Data

It is observed from the table 4 shows that the correlation between first pair of canonical variate is 0.9731 and it is highly significant at 1 per cent level with very low unexplained var-

iance of 1.46 per cent, i.e., explained variance in the actual data by first function is 98.54 per cent (Wilk's $\lambda = 0.0146$, $\chi 2 = 61.26$, $p < 0.01$). The correlation between second pair of canonical variate which accounts for variance in the actual data not accounted by the first function, 0.8510 is also significant but at 5 per cent level (Wilk's $\lambda = 0.2747$, $\chi 2 = 18.68$, $p < 0.01$). Hence, both functions are considered for further interpretation based on canonical loadings.

Table - 5
Relationship between Firm Value and Financial Structure Variables of Selected Finance Companies of Canonical correlation model

Canonical Function	Canonical R	Canonical R^2 (Eigenvalue)	Chi-Square	df	p-Value	Wilks Lambda
0	0.9532	0.9086	88.63	20	0.0000	0.0309
1	0.8132	0.6613	27.61	9	0.0011	0.3387

Source: Primary Data

It is noticed from the table 5 informed that, the first and second functions with canonical correlation of 0.9532 and 0.8132, shared variance of 0.9086 and 0.6613, and unexplained variance of 3.09 per cent and 33.87 per cent are significant at one per cent level (Wilk's $\lambda = 0.0309$, $\chi 2 = 88.63$, $p < 0.01$ for first & Wilk's $\lambda = 0.3387$, $\chi 2 = 27.61$, $p < 0.01$ for second function) respectively. Therefore, both functions are valid for interpretation on canonical loadings.

Table - 6
Relationship between Firm Value and Financial Structure Variables of Selected Pharmaceutical Companies of Canonical correlation model

Canonical Function	Canonical R	Canonical R^2 (Eigenvalue)	Chi-Square	df	p-Value	Wilks Lambda
0	0.9165	0.8400	38.17	20	0.0085	0.0719
1	0.7420	0.5506	11.60	9	0.2371	0.4494

Source: Secondary Data

As shown in the table 6, the correlation between first canonical variate of the firm value and financial structure-firm characteristics variables is high at 0.9165 and significant at 1 per cent level with high common variance in the original data to the extent of 84.0 per cent (Canonical R2) and very low unexplained variance of 7.19 per cent (Wilk's $\lambda = 0.0719$, $\chi 2 = 38.17$, $p < 0.01$). But the second function, though with substantial correlation of 0.7420, is not significant at required p-level. Therefore, first function is deemed for further interpretation using canonical loadings.

Major findings of the Study

(1) There is significant negative relationship between firm value and debt fund in the capital in the case of Automobile sector under study.
(2) The value of sugar companies in the market tend to increase only relative to replacement cost if EPS and CR level are high and net sales to total assets is negligible higher when there has been considerable decline in use of debt fund in capital.
(3) The shares of cement companies are valued less than its book value if use of debt fund in the capital is more when there has been a decline in asset level even if there has been an increase in turnover and profitability.
(4) It is found that the valuation of selected chemical companies relative to replacement cost tend to increase whereas such valuation is less than book value if there has been decline in use of long-term debt as well as in size of assets with considerable increase in DPS and moderate increase in ROE and Current assets level (relative to Current liabilities).
(5) The change in MVA and Tobin's Q is independent of the financial structure in the case of selected pharmaceutical companies
(6) The valuation of non-banking companies' shares relative to replacement cost increases with moderate increase in use of long-term debt fund (likely to be deposits) despite less growth in sales (lending activities).

Major suggestions

Based on the findings of the study following suggestions are made

1. The decline in profitability for smaller automobile companies is likely to increase the use of debt fund. More reliance on borrowed fund when there is a decline in profitability may lead to financial crisis. Hence, such automobile companies should restrict their reliance on borrowings for making investments.
2. The large size companies (cement, chemical, pharmaceutical) opt for debt fund for capital investment due to notable decline in free cash flow and marginal increase in risk associated with earning (earning volatility) despite remarkable increase in growth in sales. Opting for long-term borrowings is advisable if interest on borrowings is used as tax shield. Otherwise, it is riskier for the firms go for more borrowing when there has been decline in free cash flow.
3. For non-banking finance companies to be valued higher in the market, dividend per share is an important aspect. So, the companies under this sector should give more focus on paying dividend to their investors.
4. The investors can invest in non-banking financial companies with more deposits (fund from long-term sources) as the companies under this sector are valued higher if use of fund from long-term sources is higher despite less growth in business turnover.

Conclusion

From the study the relationship between corporate finance structure and firm value, it is concluded that the market valuation of shares is more than book value and higher than replacement cost when debt fund in the capital is less in the case of for automobile and cement sectors. But for sugar sector, the market valuation of shares is unrelated to the corporate financing pattern whereas valuation relative to replacement cost is more when use of fund in the capital through external borrowing is less. In respect of pharmaceutical sector, market valuation is unrelated to corporate financial structure. With regard to non-banking finance companies, a positive relationship between firm value and use of debt fund is observed. As the long-term fund is mainly funds mobilized from deposits, the investors have reacted positively and increased the value to shareholders of non-banking finance companies with more deposits.

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