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Research Article

Choices and Determinants of Capital Structure: An Empirical Study of Firms Listed in BSE (India)

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Abstract: This examination is meant to explore the capital structure determinants of Indian firms listed in BSE for the period from 2011 to 2020. A panel data set of 125 (1250 observations) firms for the last decade time frame is accumulated yearly monetary reports of firms listed at BSE. The analysis uses the POT and TOT in discovering the determinants of capital structure and their influence on the capital structure choices. The influencing factors of size, nature, Profitability, growth, and risk are considered to speak to the effect on dependent variable. The results of the examination show that the size of the firm and risk involved in the specific business are emphatically identified with capital structure. The profitability, growth and nature of the firm in which the firm is operating are adversely influencing the capital structure. The aftereffect of firm size (assets) is reliable with the TOT and consequently profitability is predictable with the POT.

Keywords: Pecking Order Theory (POT), Trade-Off Theory (TOT), debt-equity mix, size, growth, nature of firm.

1. Introduction

So as to satisfy the necessities of a firm, the Chief financial officer needs to plan the capital structure of a firm so that it encourages the firm to charge the necessary measure of capital with least expense and with a long-standing perspective on boosting the investor's needs persistently and reliably. In this specific circumstance, the Chief financial officer needs to consider such huge numbers of viewpoints encompassed to the firm independent of nature and size of the firm which has monetarily impacting limit. With the end goal of best fulfilling the necessities of the firm and its partners, the capital structure ought to be planned by the Chief financial officer with adaptable skeleton so as to change the extent of different capital sources properly.

M & M (1958) at first demonstrated from their output that a firm's worth is simply free of its financing decision under flawless capital markets' condition; accordingly, equity and debt financing can be utilized then again and consummately for one another. M & M (1963) later perceived that the exacting the duties and insufficient & inappropriate data availability lead to the decision from the wellsprings of financing decisions and altogether decides the firm's value. According to the later perceptions of MM-approach, the organization of finance function has direct impact available cost per share and thus on the estimation of the firm. A correct selection of sources makes an ideal capital structure that expands the investor's expectations consequently this investigation makes the organizations to plan their capital structure intentionally to amplify the investor's needs.

2. Literature Review

The capital structure planning keeps a question to seekers, despite the fact that a lot of studies have been conveyed upon it (Swanson et al., 2003; Harris and Raviv, 1991).

The "money related determinant examination" is a view described by the "TOT" and was developed with respect to MM's irrelevance theory. TOT considers defective economic situations and clarifies that organizations choose their reasonable capital structure by finding the proportionality between advantages of debt and expenses of debt. This hypothesis clarifies that corporate firms frequently account their interests in the request for positioning held income, debt and afterward value because of unbalanced data in various money related subsidizing instruments, for example, debt financing versus value subsidizing and as in ward financing versus outside subsidizing.

This investigation is concentrating on financial elements of basic capital structure demonstrating of Indian non- financing institutions listed at BSE during the period of 2011 to 2020 and attempted to lift the standard firm- explicit determinants of capital structure, similar to size of the firm, profitability, growth capacity,

nature and risk.

2.1 Dependent Variable

Following the comparable investigations (Kayo and Kimura, 2011; Lipson and Mortal, 2009; Korajczyk and Levy, 2003; Wiwattanakantang, 1999; Rajan and Zingales, 1995), capital structure is characterized utilizing two elective measures, including book debts (past) and market costs (current). From the past available vast literature insist to take dependent variable as debt-equity ratio.

2.2 Profitability

By observing enough surveying, it is clear that profitability has a negative relationship with its debt capital extent. The governments themselves sometimes need to permit the business visionaries to build up their organizations with capital structure of higher debt content over their value capital. Afterward, it will be the association's duty to let down the debt extent in the context of lowering non-operating fixed charges to outside lenders. As indicated by Majluf and Myers (1984), organizations favor inner financing sources over outside financing sources. As firms are working with acceptable net revenues, they are less reliant on outer borrowings. The speculation is that there is a negative connection among profitability and capital structure. Few experimental investigations found a negative connection among profitability and debt content (influence) (for example Kester, 1986; Friend and Lang, 1988; Titman and Wessels, 1988), While Long and Malitz (1985) and Salawu and Agboola (2008) found the corresponding relationship.

2.3 Size

Size of the firm impacts debt extent. A big firm has least chance to fall under bankruptcy situation and henceforth has the chance of charge more barrowings. The literature reveals that there is a inter connectivity between firm size and financing pattern of a firm. Warner (1977) and Ang et al. (1982) expressed inverse proportional connectivity between an association's worth and the immediate insolvency expenses and found that organizations with enormous standards gangs to have less bankruptcy defaults.

2.4 Growth

According to Myers (1977), a firm with higher amount of debt in overall capital structure generally has least probability to grab the higher return projects or opportunities so that these kind of firms with higher returning ability always prefer to go with equity financing over debt financing so as with having shareholder’s wealth maximization in their view.

2.5 Nature

An association's temperament has an expected relative effect on debt level. An organization with enormous measure of obvious resources would have progressively insurance assets to serve the debt in case of liquidation and, henceforth, would have an extension to acquire more debt (Awanet al., 2011; Philippe et al., 2005). The theory is that there is a corresponding connection among nature and capital structure. As indicated by the hypothetical ideas, unmistakable resources can be utilized as guarantee (Kester, 1986). On account of chapter 11, substantial nature limits the danger of a bank and expands the estimation of the advantages. A few exact investigations affirm this expectation, a positive connection between nature of firm and debt extent, for example, Cortez, (2012), Rajan and Zingales, (1995), Titman and Wessels, (1988), Friend and Lang, (1988), and On the opposite side of coin, Bauer, (2004), Huang and Song (2002) and Booth et al. (2001) uncovered a reverse connection among nature and debt content.

2.6 Volatility

Volatility can be viewed as a reason for a company's risk (likelihood of liquidation). Likewise, volatility is thought to be conversely identified with debt content. This supposition that was experimentally established (Friend, and Lang, 1988; Bradley and Kim, 1984). Be that as it may, Huang and Song (2002, p. 9) communicated that: "As the irregularity in the estimation of advantages of a firm builds, the un-diversifiable risk of total assets diminishes. So, the firm risk is required to be relatively identified with debt extent." The volatility in an association's profits has an anticipated backwards connection on debt extent. An organization with generally safe

or less volatility in returns is having less likelihood to fail, and along these lines has low credit- value to face default risk. The speculation is that there is a converse connection among risk and capital structure. Discoveries show that income risk contrarily influences the debt value proportion (e.g., Friend, and Lang, 1988; Bradley and Kim, 1984). This is on the grounds that high income chance produces an uncertainty on the association's productivity to pay fixed charges and influences debt extents n complete capital structure. High profit chance additionally results a higher liquidation risk to loan bosses or banks.

3. Data and Methodology Data

3.1 Sample Selection Criteria

Out of 125 firms selected from the firms listed at BSE, India, four proportions have been made but not equally. Initially 65 firms were chosen for analysis from manufacturing sector spread over around India. In these 65 firms, 30 firms were selected from public limited companies and rest of 35 firms was selected from various major sectors of Indian GDP contributors.

The remaining 60 firms are selected from service sector, which is also contributing a vital role in revenue generation and employment creation. In which also geographical dispersion rule is followed along with different brackets of capitalization formula. Large, medium and small cap firms are occupied almost equally out of 60 firms belongs to service sector.

4. Methodology

To check the influence of autonomous factors on dependent variable, multiple regression analysis is utilized.

4.1 Hypothesis

H_1: there exists an inverse relationship between profitability, risk and capital structure composition. H_2: there exist in tune relationship between size, growth, nature and capital structure composition.

5. Analysis

To find out the nature and pattern of trend of determinants of data set, descriptive analysis (min, max, mean and standard deviation) were led for the dependent and independent variables.

Table 2 shows that the most elevated mean estimation of size (5.547) though the profit has (0.133) the lowest value. The debt equity ratio has highest standard deviation of 0.696, though the profit has the lowest standard deviation of 0.119.

Spearman's Correlation Coefficient test is used to check the correlation between all the variables taken for the test.

Table 3 shows that the correlation coefficients among debt to equity and all the independent factors are noteworthy. Debt to equity has positive significant relationship with the size (r = 0.0756) and risk (r = 0.0564). This implies firms huge in size and with high risk will in general have gathered more debt while taking the financing decisions. Moreover, debt to equity is essentially and adversely related with significance of profitability (r = - 0.3690), growth (r = 0.0256) and nature (r = - 0.1075). This demonstrates firms with high profit, growth and nature have lower level of debt proportion in targeted capital.

Table 1: Summary of Estimated Results

	Ratio	**Expected relationship**
Debt proportion	Debt/Equity	-
Profitability	Net Profit/Total Assets	-ve
Size	log (Total Assets)	+ve
Growth	log (Total Revenue)	-ve

Nature	Fixed Assets /Total Assets	+ve
Risk	standard deviation of ROE	-ve

Table 2: Descriptive Statistics

	N	Min.	Max.	Mean	Std. Deviation
DE	1250	-5.32	12.43	2.69	2.242
PROF	1250	-0.32	0.62	0.133	0.119
SIZE	1250	3.46	7.98	5.547	0.636
GROW	1250	2.44	8.54	5.4	0.691
NAT	1250	0	0.88	0.244	0.166
RISK	1250	0	3.89	0.58	0.678

Table 3: Correlation Coefficient Analysis

	DE	PROF	SIZE	GROW	NAT	RISK
DE	1					
PROF	-0.369	1				
SIZE	0.0756**	-0.0052	1			
GROW	-0.0256*	0.0541	0.6737**	1		
NAT	-0.1075	-0.0162	-0.513	-0.095	1	
RISK	0.0564*	0.2513**	0.0549	0.0241	0.0156	1

Correlation is significant at the 0.01 level ** Correlation is significant at the 0.05 level *

Table 4: Regression Analysis

Variables	Coefficient	p-value
Applying ordinary Least Square		
Intercept	0.931	0.000*
Profitability	-2.357	0.000*
Size of the firm	0.144	0.002*
Growth	-0.108	0.06
Nature of the firm	-0.481	0.000*
Risk	0.155	0.000*
Adjusted R^2	0.179	
R^2	0.182	
F-Value	54.476	0

N = 1250 (number of observations) * are significant at p < 0.05

Table 4 demonstrates the impact of independent factors on dependent variable (debt-equity proportion). Firm size has the positive effect on debt-equity proportion and is reliable with TOT with coefficient estimation of0.144 which is noteworthy. A huge sized firm will in general be enhanced in its business and has a more prominent detachment of possession from the board, hence more borrowings are magnified.

Profitability has negative connection with capital structure with coefficient estimation of - 0.357 which is critical at 1% certainty level. Firms with upward inclining business exercises and mind-blowing overall revenues

consistently attempt to limit the debt extent in all over capital substance. In light of higher benefit, firms may utilize held profit with respect to assist usage in business exercises. The conduct of firms in BSE is following the POT. In light of table 4.3, profitability is irrelevant as p-value is more than 0.05. Nature of the firm is adversely affecting the obligation to value and is conflicting with Static TOT with coefficient estimation of - 0.481which is huge. An understanding for this outcome could be that a firm having high measure of assembling exercises offer ascent to data asymmetry between partners; thusly, these organizations will in general issue the offers (equity). This investigate has shown a negative connection among development and capital structure with coefficient estimation of - 0.108 which is predictable with hierarchy hypothesis. In this way, these discoveries propose that higher utilized organization most presumably leavesbehind productiveventure openings; in this way, firms with high future development openings should utilize greater value financing. Such financing viably moves riches from investors to obligation holders. Risk is emphatically impacting the debt-equity ratio and is conflicting with Static TOT with coefficient estimation of 0.155 which is critical.

6. Conclusion

TOT and POT are two fundamental speculations which influence the determinants of capital structure of firm either decidedly or contrarily. First is the TOT which clarifies the trade-off between the expeBSE of insolvency and benefits of tax shield. Second is POT which is originated by Myers and Majluf (1984). The conduct of firms in BSE shows that a big firm should be more averse to get bankrupt, and hence draws in more debt, supporting the static TOT. Profitability variable is adversely identified with debt-equity ratio and is reliable with the coBSEquences of past inquiries about. The organizations with higher profitability favor equity financing than leverage financing in the business and the outcome is noteworthy, supporting the POT. Firms with high growth adversely identified with debt to equity. Firms with high growth opportunity don't look for debt financing and it is predictable with POT. In outline, this paper broadens our comprehension of the TOT and POT in capital structure in clarifying the financing decision of organizations on BSE. The discoveries of this investigation by and large recommend that financial elements are significant determinants of listed firms in BSE. It is, be that as it may, significant for future research way to likewise consider the finance basis issues in clarifying the capital structure of firms listed in BSE so as to more readily clarify the relationship.

Suggestions to the Firms

From the previous literature available and on the basis of current analysis it is notified that, debt content in the capital content has outright influence on overall expeBSE of the firm. The firms by their basic nature of production, needs to design their financing decision so as to create positive impact on total return generating ability. The attributes of profit generating capacity, size of the firm, nature of the firm and risk involvement in overall business activity have positive impact on debt-equity mix and finally the expandability of a business concern hasn't any influence on the debt-equity mix.

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