

IDENTIFICATION OF FACTORS LEADING THE DECISION OF FINANCIAL MANAGER TOWARDS FINANCIAL LEVERAGE

Raghav Jain¹
Swati Goyal²

ABSTRACT

The purpose of the study is to examine the perception of financial managers of the firms towards factors affecting the decision of financial leverage. This study examines the influence of various factors on financial leverage of the firm. The study was conducted by taking 200 respondents from Delhi NCR area. A self-prepared questionnaire was constructed and distributed to chartered accountants, CFAs, Financial Managers and Financial Executives of various firms. Factor analysis was used as a research technique to find out the leading factors of financial leverage of the firms. The output of the study revealed that Assets composition, Cash conversion management, collateral value of assets, interest deductibility, performance of company, political influence on capital market, cost of sources of finance and macroeconomic uncertainties are the major factors which influence the decision of financial managers towards financial leverage of the firm.

Keywords: *Financial Leverage, Profitability, Firm Size, Industry Size, Liquidity, Collateral Value of Assets.*

INTRODUCTION

In current scenario the intensity of competition is very high. It is a very complex decision for a finance manager to enhance the profitability of the firm. For this a finance manager has only two options: first is to increase the revenue by improving the sales output (volume of sales or increase in selling price) and the second option is to cut down the cost of production. The firm cannot reduce the amount of cost of production by cutting the direct cost like: labor, material etc. So it becomes very important for a manager/owner to reduce the cost of borrowing. A manager needs to look forward for various sources of long term finance and its cost. Accordingly he needs to decide an optimal capital structure for a firm where the overall cost of capital is at lowest point. Capital mix include issue of equity shares, preference shares, debentures, bonds, loan taken from banks/financial institution and retained earnings. Every source of finance has its own cost. Thus it is very important for a firm to choose such a capital mix where the valuation of firm is high and the cost of capital are low. Financial leverage is also having a same kind of meaning. Financial leverage is judicious use of debt and equity in the capital structure so that the profitability can be increased.

There are so many items which are financial and non-financial in nature considered by finance managers which influence the leverage of the firm. This study has been conducted to measure the influence of size of firm, liquidity, tangibility, interest rate risk, cost of capital, operational efficiency, profitability, tax rate on corporate, tax shield, age of business, macroeconomic uncertainty etc. on the capital structure of the Indian firm.

LITERATURE REVIEW

Modigliani and Miller (1958) indicated that debt and equity are used to minimize overall cost of capital. Because interest expense comes under tax exemption, debt is less costly than equity as a source of capital. Therefore, firms maintain a certain level of debt in the capital structure to minimize overall cost of capital, which in turn, helps to maximize the value of the firm and profitability.

Corporate income tax has an important impact on debt-equity choices. Although, the tax shield proposition of Modigliani and Miller (1958) suggested that the firms facing higher marginal tax rates should use higher debts, Biger et al. (2008) argue that tax shield proposition does not apply if firms have interest free liabilities. Biger et al. may be correct because small business owners in India sometimes borrow interest free money from family members and friends.

Ebaid (2009) carried out a study to find out the choice of capital structure on the basis of performance of the firms in Egypt. Performance was measured by considering following factors: ROE, ROA and gross profit margin. Capital structure was measured by short- term debt to asset ratio, long- term debt to asset ratio and total debt to total assets. To estimate the relationship between the leverage level and performance, multiple regression analysis was applied. The study revealed that is no impact on firm's performance due to change in capital structure.

Moradi Mehdi et al. (2010) examined the relationship between financial leverage and the earnings response coefficient through an income approach. The objective of the paper is to provide further information about factors influencing the earnings

¹ Assistant Professor, Gitarattan International Business School, Delhi, raghav.jain@gitarattan.edu.in

² Student, Gitarattan International Business School, Delhi, raghav.jain@gitarattan.edu.in

response coefficient. The study includes corporations listed on the Tehran Stock Exchange. Research data has been collected from the seven years period from 2002 to 2008, and used the multiple regressions analysis. The outcome of the study acknowledged that the earnings response coefficient for the low-leverage firms group is larger than the high-leverage ones, with differences in the means among groups statistically significant.

Pal and Verma (2011) investigated the variables affecting the capital structure in Indian manufacturing industry from 1995 to 2008. The regression model was used and panel data analysis was preferred because of time series data. The study showed mixed results. Profitability, firm size, cost of debt, tangibility and growth rate had significant impact on capital structure whereas availability of cash and rate of corporate tax had insignificant impact. The study also revealed that firms having high growth uses less debt and prefer retained earnings for financing.

Jain et al. (2012) conducted a study to examine the impact of financial leverage on cost of capital and capital structure of IT and Infrastructure companies. The study took a sample of 20 companies into consideration. Result indicates that more usage of debt in infrastructure firm cause negative correlation between overall cost of capital and leverage whereas IT companies employ minor debt in their capital structure which shows positive correlation between Cost of Equity (Ke) and combined leverage, Cost of Equity (Ke) and financial leverage and weighted average cost of capital (WACC).

Akhtar et al. (2012) examined the impact of financial leverage on the financial performance of the firms functioning in fuel and energy sector in Pakistan. The study also examined the generalization that firms with higher profitability may choose high leverage by using various statistical tools. The findings of the study revealed a positive relationship between the financial leverage and the financial performance of the companies. The results of the study confirmed that the firms having higher profitability may improve their financial performance by having high levels of financial leverage. The study revealed that optimum capital structure plays a vital role in improving the financial performance of Pakistan firm by employing the financial leverage specially in fuel and energy sector.

Ojo (2012) empirically examined the effect of financial leverage on selected indicators of corporate performance in Nigeria by using correlation matrix, vector auto regressive estimate and variance decomposition. The econometric findings presented in this study demonstrate that leverage shocks (debt/equity ratio) have substantial effect on corporate performance especially when the net assets per share (NAPS) is used as an indicator of corporate performance in Nigeria over the period covered by the study. Earnings per share depend on feedback shock and less on leverage shock. Also, the findings revealed that the leverage shock on earnings per share indirectly affect the net assets per share was received from earnings per share

of the firms.

Zafar and Maqbool(2013) attempted to examine the impact of financial leverage on shareholders return in real estate industry. They selected 30 companies listed on Bombay Stock Exchange (BSE) covering the period from 2001-2008. The classical regression model was used and seven independent variables were taken into considerations: return on capital employed (ROCE), dividend pay-out ratio (DPR), interest coverage ratio (ICR), Growth in sales, Growth in earning per share (EPS), Growth in dividend per share (DPS) and Growth in Total Assets.

Khan et al. (2013) examined the impact of leverage and profitability on dividend pay-out policy of firms taken from Chemical and Pharmaceutical industries. 34 listed firms were taken from two industries from 2003-2010 and ordinary least square method was adopted to test the validity. The results revealed that profitability of any firm positively affects dividend pay-outs while leverage has no significant effect on firm dividend pay-outs.

Nirajini and Priya (2013) examined the impact of capital structure impact on the financial performance of listed trading companies in Sri Lanka. This study examined to what extent capital structure affect financial performance of companies and whether the capital structure affect financial performance of listed trading companies in Sri Lanka from 2006-2010. Correlation analysis showed that debt asset ratio, debt equity ratio and long term debt are correlated with gross profit margin, net profit margin, return on capital employed (ROCE), return on assets (ROA) & return on equity (ROE) at significant level of 0.05 and 0.1. There is positive relationship between capital structure and financial performance. The capital structure has significantly impact on financial performance of the firm. It was recommended by both the authors that to run a business successfully, a firm need to have good capital structure decision to minimize the overall cost of capital.

Srivastava (2014) conducted study to analyse the determinants of leverage on cement industry in India. The sample of 10 companies over a period from 2008-12 was taken for the study. The finding of the study shows negative correlation of profitability, size and liquidity with leverage and positive impact of tangibility on leverage.

Pandey and Prabhavati (2016) examined the Impact of Leverage on shareholder's wealth of Automobile industry in India. The sample taken was of 12 Indian firms listed on NSE, Bombay covering the period of 2003 to 2013. Net Worth, Reserve Funds, borrowing, Investments, Gross Fixed Assets are used as independent variables, while Operating and Financial Leverage are dependent variables. For analysis purpose multiple regression models is used. The result of the study showed that Automobile companies in India should improve its operating efficiency by reducing the level of fixed cost.

A brief description of factors affecting financial leverage of the companies is summarized in table 1:

Table 1: Description of Factors affecting Financial Leverage of the Firms

Sr. No.	Author, Publication Year	Period of Study	Industry, Country	Factors, Determinants
1	Pal and Verma, 2011	1995-2008	Manufacturing, India	Profitability, Firm Size, Liquidity, Tax Rate, Cost of Debt, Assets Composition, Growth
2	Khan et al., 2013	2003-2010	Chemical &Pharma, Pakistan	Return on Assets, DER, Net Profit Margin, Total Assets for the firm
3	Srivastava, 2014	2008-2012	Cement, India	Firm Size, Growth, Profitability, Liquidity, Tangibility
4	Zafar and Maqbool, 2013	2001-2008	Real Estate, India	ROCE, DPR, GS, ICR, GEPS, GDPS, GTA
5	Pandey and Prabhawati, 2016	2003-2013	Automobile, India	ROCE, ROE, ROD, Net Worth, Reserve Funds, Borrowing, Investments, Gross Fixed Assets
6	Akhtar, 2012	2000-2005	Fuel & Energy, Pakistan	ROA, ROE, Dividend Cover Ratio, Dividend ratio to equity, NP margin, EPS, sales as of total assets
7	Anandasayanan et al., 2013	2007-2011	60 Companies, Sri Lanka	Size of Firm, Growth, Non Debt Tax Shield, Profitability, Tangibility
8	Nirajini and Priya, 2013	2006-2010	Sri Lanka	Gross Profit Margin, Net Profit Margin, ROCE, ROA, ROE
9	Enekwe et al., 2014	2001-2012	Pharmaceutical, Nigeria	ROA, DR, DER, ICR

OBJECTIVES OF THE STUDY

- (a) To examine the parameters of capital structure decision of the firms.
- (b) To study the factors affecting the managerial decision towards financial leverage of the firms.

RESEARCH METHODOLOGY

Methodology used for Data Collection: A self prepared questionnaire was distributed to targeted sample size for data collection. Sample size was 200 and non probability convenience sampling technique was used for study.

Methodology used for Data Analysis: Factor analysis was used to find out the reliable factors which affect the decision of finance manager while deciding financial leverage of the firm. Cronbach Alpha was used to check the reliability of the questionnaire and KMO Bartlett’s test was used to check the sample adequacy. For dimension reduction factor analysis was performed.

DATA PRESENTATION AND ANALYSIS

Data Presentation: Data collected from the respondents have been tabulated by using MS Excel. Presentation of data was

done on the basis of demographic variable:

Table 2: Demographics of Respondents

Gender	Total Numbers	(%)
Male	113	56.5%
Female	87	43.5%
Age	Total Numbers	(%)
25 to 35	123	61.5%
36 to 45	16	8%
46 to 55	54	27%
56 and above	7	3.5%
Education	Total Numbers	(%)
CA	120	60%
CFA	15	7.5%
Financial Executives	5	2.5%
Business Analyst/Data Analyst/Research Analyst	60	30%
Income per Annum	Total Numbers	(%)
1 Lakhs to 10 Lakhs	23	11.5%
11 Lakhs to 20 Lakhs	100	50%
21 Lakhs to 30 Lakhs	20	10%
31 Lakhs to 40 Lakhs	7	3.5%
41 Lakhs and above	50	25%

Reliability Analysis:

The reliability of the questionnaire was checked on first 50 respondents. Cronbach’s Alpha test was applied to check the reliability of the questionnaire and the value of Cronbach’s Alpha was found 0.915 which is falling in the acceptance range of 0.6 and above. Hence the questionnaire used in the study had a high reliability value.

Table 3: Reliability Statistics

Cronbach's Alpha	N of Items
0.915	30

Factor Analysis:

Sample Adequacy: The value of Kaiser-Meyer-Olkin Measure is 0.620 which is greater than 0.6. The Bartlett’s Test of sphericity is significant ($p < 0.001$). Thus it is appropriate to move ahead for factor analysis to evaluate factors which leads the decision of financial managers towards financial leverage of the firms.

Table 4: KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.620
Bartlett's Test of Sphericity	Approx. Chi-Square	4363.050
	df	435
	Sig.	0.000

Table 5 shows the total variance explained at 8 stages for factors that influence the decision of financial manager towards financial leverage of the firms. 8 factors were extracted because their Eigen Value was greater than one, which explain 72.55 percent of the variance.

Table 6 shows the rotated factor matrix for the questionnaire. After performing Varimax Rotation with Kaiser Normalization, Factor 1 comprised of 7 statements with factor loadings ranging from 0.55 to 0.81. The statements in Factor 1 are S1, S2, S3, S4, S5, S6, and S7.

Factor 2 comprised of 5 statements with factor loadings ranging from 0.54 to 0.81. The statements in Factor 2 are S17, S19, S20, S21, and S22. Factor 3 comprised of 3 statements with factor loadings ranging from 0.51 to 0.81. The statements in Factor 3 are S10, S11, and S12. Factor 4 comprised of 3 statements with factor loadings ranging from 0.65 to 0.75. The statements in Factor 4 are S18, S28, and S30. Factor 5 comprised of 3 statements with factor loadings ranging from 0.64 to 0.81. The statements in Factor 5 are S24, S25 and S26.

Factor 6 comprised of 2 statements with factor loadings ranging from 0.5 to 0.78. The statements in Factor 6 are S14 and S16. Factor 7 comprised of 3 statements with factor loadings ranging from 0.52 to 0.55. The statements in Factor 7 are S6, S9 and

S23. Factor 8 comprised of 2 statements with factor loadings ranging from 0.59 to 0.80. The statements in Factor 8 are S15 and S27.

Table 5: Total Variance Explained

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	4.466	14.887	14.887
2	3.390	11.301	26.188
3	2.996	9.986	36.174
4	2.722	9.075	45.249
5	2.502	8.340	53.590
6	2.325	7.750	61.340
7	1.801	6.005	67.344
8	1.561	5.204	72.548

Eight new factors were successfully constructed by using factor analysis and assigned as the leading factors which influence the managers of the firm while taking decisions related to financial leverage. Table 7 shows the names of the factors and percentage of variance explained for each of the factors. Tables 7 also include the reliability of each factors separately. The first factor shows the highest percentage of variance.

Table 6: Rotated Component Matrix with Factors Loadings

	Component							
	1	2	3	4	5	6	7	8
VAR00001	0.699							
VAR00002	0.815							
VAR00003	0.755							
VAR00004	0.692							
VAR00005	0.777							
VAR00006	0.594						0.529	
VAR00007	0.557							
VAR00009			0.515				0.552	
VAR00010			0.811					
VAR00011			0.794					
VAR00012			0.585			0.504		
VAR00014						0.785		
VAR00015								0.803
VAR00016						0.587		
VAR00017		0.565						
VAR00018				0.651				
VAR00019		0.772						
VAR00020		0.816						
VAR00021		0.547						
VAR00022		0.819						
VAR00023		0.546					0.548	
VAR00024					0.818			
VAR00025					0.865			
VAR00026					0.639			
VAR00027								0.594
VAR00028				0.737				
VAR00030				0.752				

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Table 7: Factors Affecting Decision of Financial Leverage

Factor	Name	Statement No.	Reliability
1	Assets Composition	1,2,3,4,5, 6,7	0.883
2	Cash Conversion Management	17,19,20, 21,22	0.831
3	Collateral Value of Assets	10,11,12	0.759
4	Interest Deductibility	18,28,30	0.751
5	Performance of Company	24,25,26	0.796
6	Political Influence on Finance Market	14,16	0.518
7	Cost of Capital	9,23	0.476
8	Macro Economic Uncertainty	15,27	0.662

CONCLUSION

There are eight factors which influence the decision of financial manager of the firms while deciding capital structure of the firm and financial leverage as well. These are Assets Composition, Cash Conversion Management, Collateral Value of Assets, Interest Deductibility, Performance of Company, Political influence on financial market, Cost of Capital and Macro Economic Uncertainty. The most significant factors out of eight factors are Size of Industry or Firm, Liquidity and Profitability of the firms.

The survey shows that majority of the respondents were male in the age group of 25 to 35 years. 60 % of the total respondents were Chartered Accountants having income between 11 Lakhs to 20 Lakhs per annum.

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