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IMPACT OF CAPITAL STRUCTURE OF LISTED COMPANIES ON INDIAN CAPITAL MARKET

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Abstract

This study involves the empirical investigation of the impact of capital structure on the stock price of the companies listed in National Stock Exchange (NSE), India. The secondary data over the period of 2007- 2016 of four industries such as Pharma, FMCG, Automobile and IT with five companies of each were used for the study. The analysis of relationship between capital structure and stock value are made through regression model using AMOS graphical environment. The capital structure involving shareholders' equity and debt are considered as predictors of the study. Further the ratios such as Interest rate, Net profit margin, Gross profit margin, operating profit margin, Earnings per share, Price earnings ratio and Dividend payout ratio for the 20 companies of ten years are estimated. The conceptual model that fits all these variables and ratios are designed to test the hypothesis. The result reveals that shareholders' equity and debt of the company influences the mediator variables which in turn has impact on the stock price of the National Stock Exchange (NSE) market.

Keywords:
Capital Structure,
Shareholders' equity,
Debt,
Financial ratios,
Share Price.
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1. Introduction

Stock prices changes on a daily basis as a result of market forces. There are various other factors of the company that affect the share prices.Capital structure of the firm is one of the factor that influence the profitability of the company. The optimum capital structure must have an appropriate mixture of debt and equity. Debt is a liability that has interest on it which has to be paid irrespective of the firm's profit. Whereas equity is a promoters fund which involves the dividend payment on the company's profit.

The choice of the proportion of debt and equity in capital structure depends on the various factors some of them are nature of the company's business, earnings of the company, market condition, psychology of the investors, etc. The company's capital structure must also raise the wealth of the investors of the company. Therefore, funds raised by borrowing is cheaper thus resulting in benefit of shareholders through the hike in Earning per Share (EPS) of the company.

Therefore, it is vital to understand how the capital structure of the firm matters for the volatility of the price in the capital market this can be done simply by testing the changes in debt and equity, components of the capital structure used by the firm. Thus, the project will be a significant contribution to the financial discipline.

1.1Literature Review:

Udayakumari Vidhyasagara Menon (2016) tested the relationship between capital structures and stock prices of the companies of Muscat Securities Market (MSM). The study involves the listed companies registered in MSM for three main sectors for a period of eight years. It analyzes the relationship between share price and capital structure by correlation analysis and multiple regression analysis in a panel framework. The author found an inverse relationship between debt amount and share prices. Further a positive relationship between equity amount and share prices and debt equity ratio. The results indicate that debt addition to overall capital inversely effects the share prices. The results portrays that capital structure influences the firm value.

Masulis (1983) found that both stock prices and firm values are positively associated to changes in debt level and leverage. This evidence is reliable with models of optimal capital structure and

with the hypothesis that debt level changes release information about changes in firm value. However, evidence for the reason about the relation between changes in capital structure and firm value are seldom reported.

Anshu Handoo & Kapil Sharma (2014) measured the traditional factor that are hypothesized to affect financing decision of Indian companies namely, profitability, asset tangibility, size, tax rate, and debt servicing capacity that have significant impact while raising short term debt, long term debt and total debt while making capital structure decisions of Indian companies. Handling capital structure thus becomes a balancing act. The trade-off a company makes between financial tractability and fiscal discipline is the most important consideration in determining its capital structure and far outweighs any tax benefits, which are negligible for most large companies unless they have extremely low debt.

Rajan & Zingales (1995) found that the firm leverage across the G-7 countries are similar. The authors investigated the determinants of capital structure choice by analyzing the financial decisions of public firms in the major industrialized countries. The study suggest to strengthen the relationship between theoretical models and empirical specification of those models.

Jensen & Meckling (1976) identified the problem between shareholders and managers because the management ownership being less than 100% of equity. This problem can be resolved by increasing the percentage of shares owned by the manager or by increasing debt in capital structure. Agency models has described the theory of capital structure but not on the difference in capital structure observed in practices (Hirschliefer & Thakor, 1989). Capital structure can be viewed as an indication given by managers to investors or as path to decrease inefficiencies caused (Leland & Pyle, 1977). Harris & Raviv, 1990 stated that the high leverage can be an outcome of firm with large value in the market.

1.2Research Gap:

The study on the impact of change in capital structure on the share price are made through capital structure theories. There are limited study of the effect based on the balance sheet examination. The factors manipulating the capital structure are evaluated through ratio analysis

with the data obtained from the company's balance sheet and then the correlation between the ratios and the stock price is estimated. The conceptual model is developed for this study by considering the factors such as Profitability ratio, Leverage ratio, Pricing ratio et al.

1.3Need and Scope of the study:

The capital structure of a firm significantly impacts its stock price of the company in the market. The investors who would like to invest in the capital market must make the decision on the selection of the highly profitable securities. This study helps the investor to invest in capital market with respect to the change in capital structure adopted by the firm.

1.4Hypothesis:

- H1: There is a significant impact of total shareholders' equity on Interest rate.
- H2: There is a significant impact of total debt on Interest rate.
- H3: There is a significant impact of Interest rate on profitability ratios.
- H4: There is a significant impact of profitability ratio on Earnings per share.
- H5: There is a significant impact of Earnings per share on Price earnings ratio and Dividend payout ratio.
- H6: There is a significant impact of Price earnings ratio and Dividend payout ratio on index value.

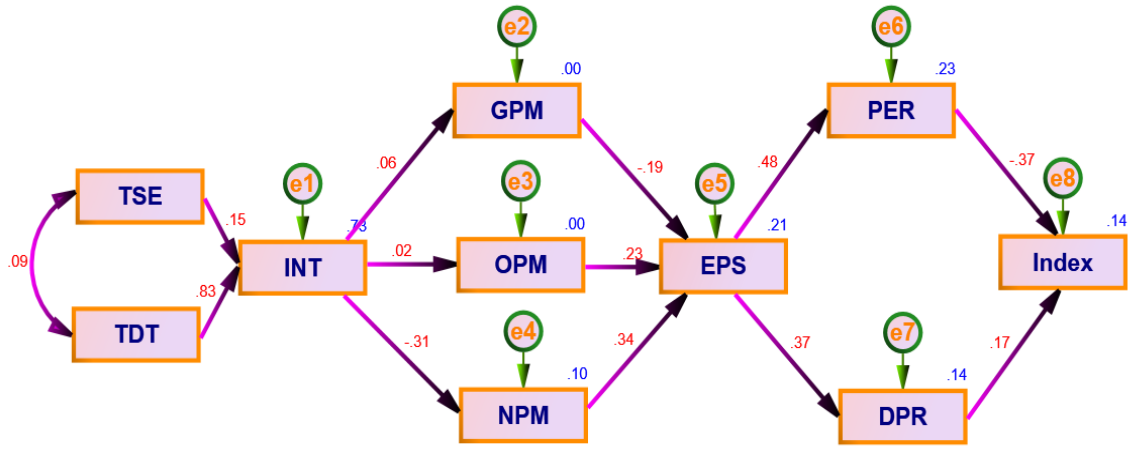
2. Research Method

The study uses the Regression Model of factor influencing the Capital Structure to determine the relationship between the capital structure and share price of NSE market. In hierarchical regression, the predictor entities are entered in sets of variables according to a pre-estimated order that may infer some causal or potentially mediating relationships between the predictors and the dependent variable (Francis, 2003). The rationality involved in hypothesizing mediating relationships is that "the independent variable influences the mediator which, in turn, influences the outcome" (Holmbeck, 1997).

Hence the variables were empirically tested with the hierarchical regression on the companies from four industry such as pharmaceutical, FMCG, automobile and IT. Each industry involves

five companies and thus a total of 20 companies are selected. The companies analyzed for the study are Sun pharma, Lupin, Dr.Reddy's, Cipla, Aurobindo pharm, ITC, Godrej, Marico, Dabur, Britannia, Bajaj, Ashok Leyland, TVS Motors, Tata Motors, Mahindra & Mahindra, Infosys, HCL, Wipro, Tech Mahindra and TCS. Thus the study involves a sample of 200 balance sheet of the companies to make the analysis.

The estimated dependent variables, ratios and other mediator variables are alignedfor the model conceptualized as in the following figure within the AMOS graphics environment. The estimated p-value of the model can be used to test the hypothesis. If the values are significant at 5% significance level (i.e.) less than 0.05 then the alternate hypothesis are proved to be true, otherwise the null hypothesis is selected.



Regression Weights: (Default model)

			Estimate	S.E.	C.R.	P	Label
INT	<---	TSE	.004	.001	3.959	***	
INT	<---	TDT	.103	.005	22.312	***	
OPM	<---	INT	.000	.000	.272	.786	
GPM	<---	INT	.000	.000	.801	.423	
NPM	<---	INT	.000	.000	-4.673	***	
EPS	<---	OPM	205.766	56.318	3.654	***	
EPS	<---	GPM	-64.600	21.403	-3.018	.003	
EPS	<---	NPM	98.843	18.136	5.450	***	

			Estimate	S.E.	C.R.	P	Label
PER	<---	EPS	.000	.000	7.771	***	
DPR	<---	EPS	7.248	1.296	5.593	***	
Index	<---	PER	-48892.157	8770.288	-5.575	***	
Index	<---	DPR	1.034	.402	2.575	.010	

Standardized Regression Weights:

			Estimate
INT	<---	TSE	.147
INT	<---	TDT	.827
OPM	<---	INT	.019
GPM	<---	INT	.057
NPM	<---	INT	-.314
EPS	<---	OPM	.230
EPS	<---	GPM	-.190
EPS	<---	NPM	.344
PER	<---	EPS	.483
DPR	<---	EPS	.369
Index	<---	PER	-.371
Index	<---	DPR	.172

Squared Multiple Correlation:

	Estimate
INT	.729
NPM	.099
GPM	.003
OPM	.000
EPS	.209
DPR	.136
PER	.233
Index	.145

The analyses conducted, the parameter estimates are then viewed within AMOS graphics and it displays the standardized parameter estimates. The regression analysis revealed that the p- value for total shareholders' equity on Interest rate, total debt on Interest rate, Interest rate on Net profitability, Operating profit margin on Earnings per share, Gross profit margin on EPS, Net profitability on Earnings per share, Earnings per share on Price earnings ratio, Earnings per share on Dividend payout ratio, Price earnings ratio on Index value and Dividend payout ratio on Index value are less than .05 and so the hypothesis are selected. The p- value for Interest rate on Operating profit margin and Interest rate on Gross profit margin are not less than .05 and so hypothesis is rejected and null hypothesis is selected.

The R^2 value of the model is displayed above in the AMOS graphics output reveals that the Capital structure involving equity and debt is correlated to interest rate by 73%. The Leverage is related to profitability ratio by 9%, 0.3% and 0% respectively. The profitability influences the Earnings per share by 21% whereas EPS is correlated to Dividend payout ratio and Price earnings ratio by 14% and 23%. Thus the overall structure with the independent variables Shareholders equity and Debt influences the mediator variables such as Interest, Profitability, Earnings per share, Dividend payout ratio and Price earnings ratio which, in turn, influences the outcome Index value of the NSE stock market by 15%.

Comparison of Industry values:

PATH	Pharma	FMCG	Automobile	IT
INT <--- TSE	***	***	***	0.19
INT <--- TDT	***	***	***	***
OPM <--- INT	0.021	0.335	***	0.328
GPM <--- INT	0.018	0.272	***	0.374
NPM <--- INT	0.003	0.244	0.018	0.744
EPS <--- OPM	***	***	***	***
EPS <--- GPM	***	***	***	***
EPS <--- NPM	***	***	***	***
PER <--- EPS	***	***	***	***
DPR <--- EPS	***	***	***	***
Index <--- PER	***	***	0.735	0.156
Index <--- DPR	0.043	0.035	0.782	***

The above table shows the comparison of regression analysis of the pharma, FMCG, Automobile and IT industry. The p-value for total shareholders' equity on Interest rate all the industry except for IT are significant. The total debt on Interest rate are highly significant for all the industries. The leverage of industries have an insignificant impact on the profitability whereas the profitability ratios of all the considered industry has an impact on the earning per share. The EPS of industries has highly positive impact on Dividend payout ratio and Price earnings ratio. The price earnings ratio for Automobile and IT industry are insignificant on the share price in National Stock Exchange (NSE) market. The dividend payout ratio for Automobile industry alone insignificant on the share price in National Stock Exchange (NSE) market.

3. Findings and Suggestion

The influence of capital structure on firm value has been among the most debated topic in corporate finance. Several experts over the years have given different approaches. The study was an attempt in the same direction and tried to establish a link between capital structure and firm value in National Stock Exchange (NSE) market. The study involves ratio analysis in a conceptual model created using AMOS graphical environment. After studying the relationship between share prices and capital structure we see a 15% impact of capital structure on the share price of the companies in the NSE market.

These findings have important allegations for managers or people who take decisions regarding capital structure. The changes in capital structure may have a significant impact on stock prices of the companies in context of NSE market. The investors who would like to invest in the capital market must make the decision on the selection of the highly profitable securities. This study helps the investor to invest in capital market with respect to the change in capital structure adopted by the firm along with the fundamental analysis of the company. Therefore, the decisions regarding capital structure by managers and investors to invest should be taken with care so that there is no negative impact on firm value.

4. Conclusion

The study's findings and the application of statistical and empirical analysis conclude that firms' capital structure has influenced their stock values in the National Stock Exchange (NSE) market.

In the study it has been analyzed that all the financial ratios used directly or indirectly impacts the share price of the companies. Therefore the finding suggest that the companies must adopt the debt and equity mix in an appropriate proportion to maintain their expected firm value in the National Stock Exchange (NSE) market. The investors must check the capital structure of the firm along with the further fundamental analysis to invest in the company that provides the yield required.

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