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INTERRELATIONSHIP BETWEEN EQUITY-DEBT STRUCTURE AND PROFITABILITY WITH SPECIAL REFERENCE TO TEXTILE INDUSTRY IN INDIA

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Abstract

The determination of equity and debt structure is an important decision for company. There are so many factors affect capital structure. Therefore, the ideal choice between debt and equity can affected the value of firm & it's also affected the rate of return. This study tries to indicate hypothesized relationship as how equity-debt structure affect firm revenue & what interrelationship between equity and debt and profitability. For study purpose 3 companies selected as sample. The period of study is five years i.e., 2016-17 to 2020-21. The data collection has based on secondary data. The data have been collected through published annual reports of companies. For analysis independent variable is debt-equity ratio and dependent variables are net profit ratio, return on assets and return on capital employed. Correlation matrix and descriptive statistics applied for analysis. In study descriptive statistics such as mean, standard deviation and ratio has used for analysis. The result indicates that there has strong one to one relationship between equity & debt structure variable with profitability variables of textile companies.

Keywords: *Equity-Debt Structure, Profitability, Correlation, Textile, Return on Assets, Return on Capital Employed*

INTRODUCTION

The determination of capital structure is one of the difficult decisions, because there are so many factors involve in that, such as risk and profitability. The decision become more difficult, in times when there is instability in our business. Capital structure including owner fund and borrower fund. Capital structure of a firm is mixture of debt and equity, which is use by firm for operation. Firms can finance their assets either through equity share capital or debenture. It's completely management decision to choose the financial resource to finance their assets. The right proportion of debt and equity is very important decision for management.

LITERATURE REVIEW

Ramachandran & Madhumathy (2016), analysed the effect of capital structure on financial performance of tenth textile Indian companies for the period of tenth years i.e., 2004-2014. for the purpose of study, researcher used accounting tool. For the analysis researcher use leverage, profitability ratio, dividend payout ratio, return on assets. The author concluded that company uses proportional of debt and equity to support its assets and it is key indicator for business.

Revathy & Santhi (2016) analysed the effect of capital structure on profitability of seventy Indian manufacturing companies listed in Bombay stock exchange. The study spread over three phases during period of April 1991 to march 2012. In this study phases divided into pioneering stages (April 1996 to March 2000) growth stages (April 2001 to march 2005), consolidation stages (after April 2005). The author concluded that has been strong one to one relationship between capital structure and profitability and increasing in debt and equity ratio inversely affect to the profitability of companies.

Rakesh, M., & Souza (2018) studied impact of capital structure on profitability of nifty50 companies for period of five years i.e.2013-17. For the study, return on capital employed was dependent variable and debt ratio & debt equity ratio were independent. for the analysis, researcher used panel data regression. The result revealed that capital structure was not determining the profitability of firm. There exists a weak negative relationship between capital structure and profitability.

RESEARCH METHODOLOGY

3.1 SAMPLE AND DATA:

The main purpose of study to measure the interrelationship between equity and debt structure and profitability performance of selected Indian textile companies. The three textile companies selected as sample. For study purpose, data is collected from annual reports of the companies. The period of Study 2016-17 to 2020-21.

3.2 OBJECTIVES OF STUDY

1. To Analysis the relationship between debt equity and Net Profit of selected firms.
2. To study and analysis the relationship between debt equity and Return on Assets of selected firms.
3. To study and analysis the relationship between debt equity and Return on Capital Employed of selected companies.

3.3 HYPOTHESIS OF THE STUDY:

1. Ho-1 There is no relationship between debt equity and net profit.
2. H1-1 There is relationship between debt equity and net profit.
3. Ho-2 There is no relationship between debt equity and return on capital employed.
4. H1-2 There is relationship between debt equity and return on capital employed.
5. H0-3 There is no relationship between debt equity and return on assets.
6. H1-3 There is relationship between debt equity and return on assets.

3.4 VARIABLES:

Independent and dependent variables are shown in the following table:

Nature of variables	Explanations	Calculations
Independent variable	Debt equity ratio	Total debt/shareholders' equity
Dependent variable	Net profit ratio	Net profit/ sales
Dependent variable	Return on capital employed	EBIT/capital employed
Dependent variable	Return on assets	Net profit after tax/total assets

3.5 SOURCES OF STUDY:

The published annual reports of the fast-moving consumers goods companies.

3.6 TEXTILE FIRMS SELECTED FOR STUDY:

- Vardhman textile group
- Arvind group
- Raymond limited

3.7 TOOLS AND TECHNIQUES USED IN THE STUDY:

Leverage Ratios, Profitability ratios has been applied for the purpose of analysis. The statistical description is applied to describe the nature of the selected variables. The association between debt & equity and profitability has been examined by using correlation analysis. Collected data is analysed through SPSS software.

3.7 LIMITATIONS OF STUDY:

1. This study completes based on secondary sources.
2. The study is limited up to 5 years for data analysis.
3. Financial analysis is based on selected accounting ratios. financial ratio has their own limitations.
4. The study is carried out on the basis of limited number of companies.
5. The financial analysis only considers the fact which are expressed in terms of money. The study covers only quantitative aspects.

RESULT & DISCUSSION

The first result and discussion about individual companies' performance during the period of study:

TABLE 1 – DEBT-EQUITY RATIO: (in times)

Company name	2016-17	2017-18	2018-19	2019-20	2020-21	Mean	S.D.
Arvind limited	0.87	0.76	0.88	0.72	0.57	0.761	0.113
Vardhman textile group	0.44	0.43	0.37	0.35	0.30	0.378	0.051
Raymond ltd.	1.05	0.87	1.07	0.73	0.72	0.888	0.150

(Sources: computation of author)

From the above table 1, depicts that in all the company the proportion of debt is less compare to equity share capital. In these all three companies mean of Raymond limited highest compare to other companies. It means in theses company more financing through debt. While Vardhman textile company limited lowest mean i.e., 0.378 compare to other companies. In Raymond limited having higher standard deviation i.e.,0.150 & Vardhman group having lower standard deviation i.e.,0.051.

TABLE 2: - NET PROFIT RATIO: (in percentage)

Company name	2016-17	2017-18	2018-19	2019-20	2020-21	Mean	S.D.
Arvind limited	4.54	3.89	6.09	2.55	2.01	3.81	1.45
Vardhman textile group	17.48	9.31	10.84	8.62	6.04	10.45	3.83
Raymond ltd.	1.11	3.02	2.22	2.95	-6.76	0.50	3.69

(Sources: computation of author)

As per above table 2, Vardhman group textile having highest net profit ratio i.e., 10.45. in compare to others companies Vardhman textile are in better position to cope with market ups-downs. But in case of Raymond limited having lower mean i.e., 0.50 compare to other companies. In 2020-21 Raymond company suffering loss in their business. This study indicates that this company are not better position compare to other companies. Vardhman group having highest standard deviation i.e.,3.83, it shows that company having fluctuation in net profit. while Arvind having lower standard deviation i.e.,1.45.

TABLE 3: RETURN ON ASSETS: (in percentage)

Company name	2016-17	2017-18	2018-19	2019-20	2020-21	Mean	S.D.
Arvind limited	1.56	3.54	3.34	2.51	1.40	2.47	0.88
Vardhman textile group	14.39	7.09	8.31	6.91	3.9	8.12	3.45
Raymond ltd.	0.937	2.44	1.73	2.51	-2.67	0.9894	1.91

(Sources: computation of author)

From the above table it is clear that, Vardhman group of textiles having highest rate of return on assets with mean i.e., 3.45. this shows that company used assets very efficient manner. It means company obtain good return on assets. This company earn maximum return on assets in period of study. While, Raymond limited having lowest rate of return on assets with mean i.e.,0.9894. Raymond limited in 2020-21 having negative return on assets. Vardhman group textile having higher standard deviation i.e.,3.45 compare to other companies. It means there is fluctuating in return on assets in Vardhman textile group. While in Arvind limited having lower standard deviation compare to other companies.

TABLE 4: RETURN ON CAPITAL EMPLOYED: (in percentage)

Company name	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**Mean**	**S.D.**
Arvind limited	6.08	6.1	4.47	4.07	2.20	4.58	1.44
Vardhman textile group	20.04	8.94	10.47	8.38	4.0	10.36	5.29
Raymond ltd.	0.85	4.44	2.74	3.87	-4.11	1.55	3.08

(Sources: computation of author)

From the above table, Vardhman group having maximum rate of return on capital employed with mean i.e.,5.29. this means company used employed capital efficiently and effectively. Compare to other companies in study, Vardhman textile company earn good return on employed capital. Raymond ltd. having minimum rate of return on capital employed i.e., 4.58. taking consideration of standard deviation Vardhman group having maximum standard deviation. i.e., 5.29 while Arvind ltd. having minimum standard deviation i.e.,1.44.

Table 5 Correlations Matrix Showing Relationship Between Deb Equity Ratio & Other Variables of Arvind ltd.

		Debt equity ratio	Net profit ratio	Return on assets	Return on capital employed
Debt equity ratio	Pearson Correlation	1	.906	.413	.761
	Sig. (2-tailed)		.034	.49	.135
	N	5	5	5	5

Source: authors calculation-SPSS database

The above result in table 5 show the relationship between various variables used in study.

- The result indicates that there is positive relationship between debt equity and net profit ratio in Arvind ltd. The correlation between debt equity and net profit is 0.906. there is direct positive relationship of debt equity and net profit. It means company increasing some proportion of debt equity, its directly increase the net profit.
- In Arvind ltd debt equity ratio is positively related with return on assets and return on capital employed. The correlation between debt equity and return on assets is 0.413.

- While correlation between debt equity and return on capital employed is 0.761.

Table 6 Correlations Matrix Showing Relationship Between Deb Equity Ratio & Other Variables of Vardhman textile group

		Debt equity ratio	Net profit ratio	Return on assets	Return on capital employed
Debt equity ratio	Pearson Correlation	1	.771	.777	.784
	Sig. (2-tailed)		.127	.122	.117
	N	5	5	5	5

Source: authors calculation-SPSS database

The above result in table 6 show the relationship between various variables used in study.

- The result indicates that there is positive relationship between debt equity and net profit ratio in Vardhman group of textiles. The correlation between debt equity and net profit is 0.771. there is direct positive relationship of debt equity and net profit. It means company increasing some proportion of debt equity, its directly increase the net profit.
- In Arvind limited debt equity ratio is positively related with return on assets and return on capital employed. The correlation between debt equity and return on assets is 0.777.
- While correlation between debt equity and return on capital employed is 0.784.

Table 7 Correlations Matrix Showing Relationship Between Deb Equity Ratio & Other Variables of Raymond limited

		Debt equity ratio	Net profit ratio	Return on assets	Return on capital employed
Debt equity ratio	Pearson Correlation	1	.432	.330	.274
	Sig. (2-tailed)		.468	.588	.656
	N	5	5	5	5

Source: authors calculation-SPSS database

The above result in table 7 show the relationship between various variables used in study.

- The result indicates that there is positive relationship between debt equity and net profit ratio in Raymond ltd. The correlation between debt equity and net profit is 0.432. there is direct positive relationship of debt equity and net profit. It means company increasing some proportion of debt equity, its directly increase the net profit.
- In Raymond limited debt equity ratio is positively related with return on assets and return on capital employed. The correlation between debt equity and return on assets is 0.330.
- While correlation between debt equity and return on capital employed is 0.274.

CONCLUSION

The interrelationship between equity debt structure and profitability of textile firms is analyzed based on descriptive statistics and correlation matrix. From the above calculation and discussion, it is concluded that debt to equity ratio is positively related with profitability. We can say there is positive interrelationship between debt equity and profitability. Debt equity ratio is long term solvency ratio. This ratio indicates the financial soundness of the company. Using right proportion of debt and equity is good for company. Proportion of debt is less compared to equity share capital is good for financial position of company.

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