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IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY OF SELECTED DEFENCE COMPANIES IN INDIA

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ABSTRACT:

The main objective of this paper has been to analyze the impact of capital structure practices on profitability of top two Defence companies in India. This paper investigates Capital Structure Ratios such as Dividend Pay Out Ratio(DPR) and Earnings Retention Ratio(ERR) and Profitability Ratios Such as Return On Net Worth Ratio(RONW), Net Profit Ratio and Return On Capital Employed Ratio(ROCE) for a period from 2018 - 19 to 2022 -23. Descriptive Statistics and Regression analysis have been performed to show the relationship between Response (Dependent) variables and Independent Variables.

KEY WORDS: Capital Structure, profitability, Ratio analysis.

INTRODUCTION:

Capital structure refers to the specific mix of debt and equity used to finance a company's assets and operations. From a corporate perspective, equity represents a more expensive, permanent source of capital with greater financial flexibility. Financial flexibility allows a company to raise capital on reasonable terms when capital is needed. Conversely, debt represents a cheaper, finite-to-maturity capital source that legally obligates a company to make promised cash outflows on a fixed schedule with the need to refinance at some future date at an unknown cost. A company may raise its total capital from various sources such as shares, debentures and other long term borrowings. There is no fixed charge on equity shares but on preference shares and debentures it is compulsory to pay dividend or interest respectively. Thus debentures and preference shares create fixed charge.

REVIEW OF LITERATURE:

Banerjee et al. (2014) have investigated the drivers of capital structure in Indian cement businesses throughout the pre- and post-recession periods. Multiple Regression Analysis was used to investigate the impact of various independent variables on the capital structure, with the "ratio of average total debt to average total assets" as the dependent variable and seven variables that could have an impact on the capital structure as independent variables. These facts suggest that "Earning Rate," "Size of the Firm," and "Debt Service Capacity Ratio" all play a major role in influencing capital structure decisions in the Indian cement industry prior to the recession, and that "Earning Rate," "Size of the Firm," and "Business Risk" play a major role in influencing capital structure decisions in the post-recession period. It must be properly and appropriately monitored by the appropriate authorities, and available resources must be effectively utilized to optimize the profitability of the Indian cement industry.

Bader (2015) examines the capital structure of firms when taxes are abolished by looking at enterprises in a growing market in Kuwait where personal and corporation taxes are not levied. Given this finding and the beneficial influence of debt on a company's worth, measures promoting bank loans and more efficient access to credit for businesses should be implemented. The same leverage considerations that effect firms in taxed markets also affect companies in non-taxed countries. Non-tax advantages are economically substantial, accounting for about 16 percent of the value of a typical credit firm. The goal of this article is to help to have better comprehend debt's non-tax benefits. The paper shows a rough estimate of non-cash debt reduction.

IMPORTANCE OF THE STUDY:

The relationship between capital structure and profitability cannot be ignored because the improvement in the profitability is necessary for the long-term survivability of the firm. Because interest payment on debt is tax deductible, the addition of debt in the capital structure will improve the profitability of the firm. Therefore, it is important to test the relationship between capital structure and the profitability of the firm to make sound capital structure decisions.

OBJECTIVES OF THE STUDY:

1. To identify the capital structure of selected Defence companies in India.
2. To Analyze the impact of capital structure on profitability of selected Defence companies in India.

RESEARCH METHODOLOGY:

Sources of data:

The study is mainly based on secondary data which is collected from the published financial statements viz., Trading and profit and loss account and balance sheet of the companies.

Sampling technique:

The researcher has used purposive sampling technique for selecting companies. The research selected 2 companies such as Bharat Dynamics Ltd., and Zen Technologies Ltd.,

Period of the study

The study period covers 5 years for 2018-2019 to 2022-2023

TOOLS FOR ANALYSIS

MEAN, SD, VARIANCE, RANGE, KARL PEARSON'S CO - EFFICIENT OF CORRELATION AND MULTIPLE REGRESSION ANALYSIS.

HYPOTHESIS:

1. There is no significant correlation between dependent variable (Net profit ratio) and independent variables.
2. There is no significant impact on dependent variable (Net profit ratio) and independent variables.

LIMITATION OF THE STUDY

1. This study is mainly depending on secondary data collected from the companies.

2. The study is based on analyzing the capital structure of selected Defence companies in India only. Hence it is not applicable to other companies.

ANALYSIS AND INTERPRETATION OF THE DATA

TABLE 1

DIVIDEND PAYOUT RATIO

Company / Year	Bharat Dynamics Ltd.,	Zen Technologies Ltd.,
2018-19	60.88	4.01
2019-20	21.41	3.82
2020-21	65.77	77.62
2021-22	29.14	39.29
2022-23	47.61	2.10
MEAN	**44.96**	**25.37**
SD	**19.35**	**33 .11**
Variance	**374.60**	**1096.49**
Range	**44.36**	**75.52**
Skewness	**-.228**	**1.297**
kurtosis	**-2.459**	**.534**

Source: Author's Calculation from Annual report of the respective companies.

The table 1 shows the dividend payout ratio of selected Defence companies in India. The dividend payout ratio of both of the companies had fluctuating trend during the study period. Zen Technologies ltd., registered highest fluctuation during the study period and also showed highest variation of dividend payout ratio.

TABLE 2

EARNINGS RETENTION RATIO

Company / Year	Bharat Dynamics Ltd.,	Zen Technologies Ltd.,
2018-19	39.12	95.99
2019-20	78.59	96.18
2020-21	34.23	22.38
2021-22	70.86	60.71
2022-23	52.39	97.9
MEAN	**55.03**	**74.63**
SD	**19.35**	**33.11**
Variance	**374.60**	**1096.49**
Range	**44.36**	**75.52**
Skewness	**.228**	**-1.297**
kurtosis	**-2.459**	**.534**

Source: Author's Calculation from Annual report of the respective companies

The table 2 shows the Earnings retention ratio of selected Defence companies in India. The Earnings retention ratio of both of the companies had fluctuating trend during the study period. Zen Technologies ltd., registered highest fluctuation during the study period and also showed highest variation of Earnings retention ratio.

TABLE 3

NET PROFIT RATIO

Company / Year	Bharat Dynamics Ltd.,	Zen Technologies Ltd.,
2018-19	13.76	20.85
2019-20	17.28	42.16
2020-21	13.46	8.26
2021-22	17.74	3.76
2022-23	14.14	23.31
MEAN	**15.27**	**19.67**
SD	**2.06**	**15.03**
Variance	**4.24**	**225.94**
Range	**4.28**	**38.40**
Skewness	**.575**	**.726**
kurtosis	**-3.08**	**.254**

Source: Author's Calculation from Annual report of the respective companies

The table 3 shows the net profit ratio of selected Defence companies in India. The net profit ratio of Zen technologies ltd., had highest fluctuation during the study period and also had very low net profit ratio of 3.76% during the year 2021 – 22.

TABLE 4

RETURN ON CAPITAL EMPLOYED

Company / Year	Bharat Dynamics Ltd.,	Zen Technologies Ltd.,
2018-19	29.75	12.43
2019-20	28.63	30.94
2020-21	12.84	3.12
2021-22	24.64	1.16
2022-23	15.14	16.59
MEAN	**22.20**	**12.84**
SD	**7.77**	**11.97**
Variance	**60.44**	**143.19**
Range	**16.91**	**29.78**
Skewness	**.409**	**.841**
kurtosis	**-2.81**	**.228**

Source: Author's Calculation from Annual report of the respective companies

The table 4 shows the Return on capital employed ratio of selected Defence companies in India**.** The Return on capital employed ratio of Zen technologies ltd., had highest fluctuation during the study period and also had very low ratio of 1.16% during the year 2021 – 22.

TABLE 5

RETURN ON NET WORTH RATIO

Company / Year	Bharat Dynamics Ltd.,	Zen Technologies Ltd.,
2018-19	18.62	14.08
2019-20	20.51	31.14
2020-21	9.60	1.92
2021-22	16.49	.94
2022-23	10.96	15.55
MEAN	**15.24**	**12.72**
SD	**4.77**	**12.29**
Variance	**22.72**	**151.14**
Range	**10.91**	**30.20**
Skewness	**-.268**	**.756**
kurtosis	**-2.551**	**.097**

Source: Author's Calculation from Annual report of the respective companies.

The table 5 shows the return on net worth of selected Defence companies in India. Return on net worth of Zen technologies ltd., had highest fluctuation during the study period and also had very low ratio of .94 % during the year 2021 – 22.

MULTIPLE REGRESSION ANALYSIS:

TABLE 6

MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.985	.971	.956	2.172	1.929

a. Predictors: (Constant), RONW, DPR, ROCE
b. Dependent Variable: NPR
Source: Author's calculation.

The table 7 reveals the R square value which indicates the proportion of variance that is explained by independent variable (Net profit ratio). It is observed that 97.1 % of variability in dependent variable (net profit ratio) is accounted by joint variation of independent variables (RONW, ERR, DPR, ROCE).

TABLE 8

COEFFICIENTS

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
I	Constant	2.982	2.627	.108	1.135	.300
	DPR	.041	.041	-1.249	.996	.358
	ROCE	-1.210	.218	2.099	-5.542	.001
	RONW	2.450	.306		8.020	.000

Dependent Variable: NPR
Source: Author's calculation.

Table 8 shows the coefficients of all the independent variables. The analysis shows positive coefficients of independent variables (DPR and RONW) which indicates that these variables have positive impact on companies' financial performance as measured by NPR. However negative coefficient for ROCE indicates that these variables have negative impact on companies' financial performance as measured by NPR.

FINDINGS:

Dividend payout ratio, Earnings retention ratio, Net profit ratio, Return on capital employed and Return on net worth ratio of Zen technologies ltd., was not satisfactory.

CONCLUSION:

The study mainly concentrates on capital structure analysis of the selected Defence companies in India. The profitability position and capital structure of **Zen technologies ltd.,** was not satisfactory. Hence the company should concentrate on restructure its capital structure in order to get improve the profitability position.

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