

Impact of Capital Structure on Profitability of Selected Aquaculture 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 Aquaculture companies in India. This paper investigates Capital Structure Ratios such as Debt Equity Ratio(DER), Dividend Pay Out Ratio(DPR), And Earnings Retention Ratio(ERR) And Profitability Ratios Such As Return On Net Worth Ratio(RONW) , Net Profit Ratio Return On Capital Employed Ratio(ROCE) And Earning Per Share(EPS) for a period from 2017 - 18 to 2021 -22. Descriptive Statistics , Correlation and Regression analysis have been performed to show the relationship between Response (Dependent) variables and Independent Variables.

KEYWORDS: Capital Structure, profitability, Earnings Per Share.

INTRODUCTION:

The term capital structure refers to the relationship between the various long-term source financing such as equity capital, preference share capital and debt capital. Deciding the suitable capital structure is the important decision of the financial management because it is closely related to the value of the firm. 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.

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 Aquaculture companies in India.
2. To Analyze the impact of capital structure on profitability of selected Aquaculture 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 Maithan Alloys Ltd., and Indian Metals & Ferro Alloys Ltd.,

Period of the study

The study period cover 5 years for 2017-2018 to 2021-2022

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 depends on secondary data collected from the company ,*
2. *The study is based on analyzing the capital structure of selected Aquaculture companies in India only. Hence it is not applicable to other companies*

ANALYSIS AND INTERPRETATION OF THE DATA

TABLE 1

DEBT EQUITY RATIO

Company Year	Maithan Alloys Ltd.,	Indian Metals & Ferro Alloys Ltd.,
2017-18	.00	28
2018-19	.03	.47
2019-20	.01	.57
2020-21	.03	.58
2021-22	.00	.62
MEAN	.014	17.33

SD	.01	25.16
Variance	.00	632.90
Range	.03	56.53

Source: Author’s Calculation From Annual report of the respective companies

The table 1 shows the Debt Equity ratio of selected Aquaculture companies in India . Indian Metals & Ferro Alloys Ltd., had higher variation in debt equity ratio.

TABLE 2

DIVIDEND PAYOUT RATIO

Company \ Year	Maithan Alloys Ltd.,	Indian Metals & Ferro Alloys Ltd.,
2017-18	3.00	14.43
2018-19	4.12	46.28
2019-20	.49	0
2020-21	.00	4.85
2021-22	2.16	6.37
MEAN	1.95	14.39
SD	1.72	18.57
Variance	2.97	344.84
Range	4.12	46.28

Source: Author’s Calculation From Annual report of the respective companies

The table 2 shows the dividend payout ratio of selected Aquaculture companies in India. Indian Metals & Ferro Alloys Ltd., registered the highest variation of 46.28%.

TABLE 3

EARNINGS RETENTION RATIO

Company \ Year	Maithan Alloys Ltd.,	Indian Metals & Ferro Alloys Ltd.,
2017-18	97.00	85.57
2018-19	95.88	53.72
2019-20	90.51	100.00
2020-21	.00	95.15
2021-22	97.84	93.63
MEAN	76.24	85.61
SD	42.71	18.57

Variance	1824.86	344.84
Range	97.84	46.28

Source: Author’s Calculation From Annual report of the respective companies

The table 3 shows the Earnings retention ratio of selected Aquaculture companies in India. Maithan Alloys Ltd., registered the highest variation of 97.84 %.

TABLE 4

NET PROFIT RATIO

Company Year	Maithan Alloys Ltd.,	Indian Metals & Ferro Alloys Ltd.,
2017-18	15.52	10.58
2018-19	12.84	0.67
2019-20	12.11	- 4.25
2020-21	14.38	9.04
2021-22	26.41	19.51
MEAN	16.25	7.96
SD	5.83	8.03
Variance	34.00	64.49
Range	14.30	19.51

Source: Author’s Calculation From Annual report of the respective companies

The table 4 shows the net profit ratio of selected Aquaculture companies in India. The net profit ratio of Indian Metals & Ferro Alloys Ltd., was not satisfactory during the study period

TABLE 5

RETURN ON CAPITAL EMPLOYED

Company Year	Maithan Alloys Ltd.,	Indian Metals & Ferro Alloys Ltd.,
2017-18	41.91	18.63
2018-19	28.81	10.18
2019-20	21.16	0.42
2020-21	19.34	15.81
2021-22	45.51	33.00
MEAN	31.35	15.61

SD	11.90	11.96
Variance	141.64	142.95
Range	26.17	32.58

Source: Author’s Calculation From Annual report of the respective companies

The table 5 shows the Return on capita employed ratio of selected Aquaculture companies in India. Maithan Alloys Ltd., registered the highest variation of 97.84 %.

TABLE 6

RETURN ON NET WORTH RATIO

Company Year	Maithan Alloys Ltd.,	Indian Metals & Ferro Alloys Ltd.,
2017-18	33.33	15.63
2018-19	22.79	.95
2019-20	17.07	-6.41
2020-21	15.22	13.59
2021-22	34.78	29.85
MEAN	24.64	10.72
SD	9.05	14.03
Variance	81.95	196.80
Range	19.56	36.26

Source: Author’s Calculation From Annual report of the respective companies

The table 6 shows the return on net worth of selected Aquaculture companies in India. return on net worth of Indian Metals & Ferro Alloys Ltd., was not satisfactory. .

TABLE 7

EARNINGS PER SHARE(Rs.)

Company Year	Maithan Alloys Ltd.,	Indian Metals & Ferro Alloys Ltd.,
2017-18	105.52	157.19
2018-19	93.05	100.11
2019-20	81.06	33.13
2020-21	85.42	125.19
2021-22	282.71	150.27

MEAN	129.55	113.18
SD	86.12	50.09
Variance	7416.60	2508.90
Range	201.65	124.06

Source: Author’s Calculation From Annual report of the respective companies

The table 7 shows the EPS of selected Aquaculture companies in India.

The average EPS of Maithan Alloys Ltd., was high as compared to Indian Metals & Ferro Alloys Ltd.,

CORRELATION ANALYSIS:

Karl Pearson’s Co-efficient of Correlation

Karl Pearson’s co-efficient of correlation is a mathematical method applied to measure level of relationship between two related variables. The coefficient of correlation is expressed by “r”

Null Hypothesis H0:

There is no significant correlation between the dependent variable (net profit ratio) and independent variables.

Alternative Hypothesis H1:

There is significant correlation between the dependent variable (net profit ratio) and independent variables.

S. no	Independent variables	Correlation
1	DER	-.54
2	DPR	-.47
3	ERR	.11
4	ROCE	.91
5	RONW	.93

Source : Author’s calculation

The above table shows ROCE and RONW had very high positive correlation , DER had moderate, DPR had low negative correlation and ERR had very low positive correlation with net profit ratio. It can be concluded that there is no significant relationship between net profit ratio with DER and DPR and there is significant relationship between ERR, ROCE and RONW with net profit ratio.

MULTIPLE REGRESSION ANALYSIS:

TABLE 8

Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.952 ^a	.906	.788	3.64712	1.131

a. Predictors: (Constant), RONW, ERR, DPR, DER, WOCE

b. Dependent Variable: NPR

The table 8 reveals the R square value which indicates the proportion of variance that is explained by independent variable (Net profit ratio). It is observed that 90.6 % of variability in dependent variable (net profit ratio) is accounted by joint variation of independent variables (RONW, ERR, DPR, DER, WOCE).

TABLE 9

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	5.151	4.462		1.154	.313		
DER	.037	.110	.090	.340	.751	.337	2.967
DPR	-.084	.119	-.149	-.706	.519	.531	1.885
ERR	-.045	.046	-.177	-.967	.388	.704	1.420
ROCE	.131	.457	.232	.287	.788	.036	27.633
RONW	.443	.535	.745	.828	.454	.029	34.438

a. Dependent Variable: NPR

Table 9 shows the coefficients of all the independent variables. The analysis shows positive coefficients of independent variables (DER, ROCE and RONW) which indicates that these variables have positive impact on companies' financial performance as measured by NPR. However negative coefficients for DPR and ERR indicates that these variables have negative impact on companies' financial performance as measured by NPR.

FINDINGS:

1. Indian Metals & Ferro Alloys Ltd., had higher variation in debt equity ratio.
2. Indian Metals & Ferro Alloys Ltd., registered the highest variation of in dividend payout ratio,
3. The return on capital employed of Maithan Alloys Ltd., registered the highest variation of 97.84 %.
4. The net profit ratio of Indian Metals & Ferro Alloys Ltd., was not satisfactory during the study period
5. Maithan Alloys Ltd., registered the highest variation earnings retention ratio.
6. Return on net worth of Indian Metals & Ferro Alloys Ltd., was not satisfactory.
7. The average EPS of Maithan Alloys Ltd., was high as compared to Indian Metals & Ferro Alloys

SUGGESTIONS:

1. Indian Metals & Ferro Alloys Ltd., Should Reduce The Variation In Dept Equity Ratio And Dividend Payout Ratio . The Company Should Concentrate On Return On Net Worth And Return On Capital Employed.
2. Maithan Alloys Ltd., Should Reduce The Variation In Return On Capital Employed And Earnings Retention Ratio.

CONCLUSION:

The study mainly concentrates on capital structure analysis of of the selected Aquaculture companies in India. The profitability position of Indian Metals & Ferro Alloys Ltd. ,was not satisfactory .Hence the company should concentrate on the above areas in order to get optimum capital structure.

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