

38. A STUDY ON IMPACT OF LEVERAGE ON THE PROFITABILITY & RISK OF THE INDIAN STEEL INDUSTRY

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ABSTRACT

The steel industry is the booster of any economy and it can be called as match-winner in the process of developing an economy or society. The steel industry is a crucial industry for the industrial revolution in this globalized economy and assessment of the risk and profitability of the steel industry is very important to create a strong path for the future economy. Capital investments are very high in the Steel industry and the sources of capital are equity and debt. All the stock holders should know the risk and profitability of the steel industry. To assess the impact of leverage on the profitability operating leverage, financial leverage, combined leverage, and EPS is used.

KEYWORDS

Operating Leverage, Financial Leverage, Combined Leverage, Earning per share.

INTRODUCTION

Leverage and profitability are the essential components to assess the performance of a company. It will help the stakeholders to know about the growth of the company. To run the business we have to pay the expenses and these expenses can be divided into two categories, namely variable cost, and fixed cost. In the initial stage of the business more concentration needed on the variable cost, since the recovery of variable cost is easy and quick. Gradually more concentration needed on fixed expenses, since the

cost is restricted to some units of sales. Before understanding the logic and magic of fixed cost it is very important to know about what variable cost is and fixed cost is. Variable cost is a cost that is fixed for every unit of manufacturing. Fixed cost is a cost that is fixed in total that means for a particular term these expenses are fixed for any quantity of production and sales. To understand the operating risk of the company fixed cost will help us and we can understand how much operating risk is associated with the company with the help of Operating leverage. In today's competitive business world lots of difficulty arises and to bring competitiveness it is very important to have a huge capital investment. Capital can be raised by way of equity or debt. When capital is raised by debt then the financial risk of the company may increase. To assess the financial risk of the company we can use financial leverage. The real owner of the company is the shareholders and they are eagerly observing the EPS. Financial leverage plays a very big role in the changes in EPS. To understand the impact of OL, FL, and CL on EPS this study was taken.

LITERATURE REVIEW

The author concluded that there is a significant relationship between OL, FL, CL, and EPS. The study was started with the objectives of analyzing leverage impact on the profitability of the Indian banking industry. To prove that they have selected 10 banks'

financial data and used correlation and t-test. Samples were selected randomly and both descriptive and inferential statistics were used in this study. Descriptive statistics like mean, standard deviation, and skewness. (Fortyal, 2011)

The study was started to find the relationship between leverage and profitability of Bata India Ltd. To fulfill this objective secondary data were collected for seven years (from 2006-07 to 2012-13). To create more scope for the study financial performance was assessed with different ratios. Data analysis was concluded scientifically by testing the hypothesis with the correlation method. In the end, the author concluded that there is a positive correlation between leverage and profitability. (Kumar, 2014)

In 2015 one more study was conducted on the leverage and profitability of Dr. Reddy's Laboratories. Data was collected from the financial statements from 2010 to 2014. To test the relationship correlation test was conducted. As per the output of the analysis, both leverage and profitability are related to each other and they also mentioned that the present level of OL, FL, and CL is not at the optimum level. (Khedkar, 2015)

A Study on Corporate Leverage and Profitability of Pharmaceutical Industry in India: An Empirical Analysis was conducted by Dr. N.S Pandey and Ponni R. They concluded that OL has an impact on the ROA, ROE, and EPS and FL & CL does not affect on ROA, ROE, and EPS. To conduct this study they have created three objectives and data was collected for 2004-05 to 2013-14. To analyze and test the data regression and correlation was used in SPSS. (R, 2017)

Research Gap

So many researches are conducted so far on leverage and profitability. The impact of fixed cost is more in the manufacturing industry. Very few

studies are done on the steel industry. No study has defined how was the costing is done. In costing we have one of the important techniques that are throughput costing. As per throughput costing material cost is only the variable cost and the rest other is fixed cost. This research was having an aim in adopting this logic and identifying the impact of leverage on profitability. So it is found that still there is a research gap and this study can be conducted.

STATEMENT OF THE PROBLEM

The steel industry is a crucial industry in economic development. Its risk and profitability assessment is very important to understand the future of all other industries. The steel industry needs huge capital investment and their fixed costs are very high. When businesses needed huge capital investment on fixed cost then leverage impact on profitability will be more. A huge investment in fixed assets and financial costs will bring risk to the industry. It is very important to know how much risk is associated with the industry for the betterment of the industry. Hence this study was taken.

OBJECTIVE OF THE STUDIES

- To analysis the operating leverages, financial leverage and combined leverage of the selected steel companies.
- To examine the impact of leverage on the profitability of the selected steel company.

HYPOTHESIS OF THE STUDY

- H_0 : There exists no significant impact between Operating Leverage and Profitability.
- H_0 : There exists no significant impact between Financial Leverage and Profitability.
- H_0 : There exists no significant impact between Combined Leverage and Profitability.

SCOPE OF THE STUDY

This study is restricted to selected medium and small steel companies. The main aim of the study is to examine the OL, FL, and CL and how these leverage is affecting the profitability of the company. For a better understanding of profitability, this study is restricted to ROA and EPS. The study is conducted for the financial years of 2016-17 to 2018-19.

SAMPLES OF THE STUDY

Samples selection is very important for the study here samples are selected based on the probability sampling method... Probability sampling means equal chance and equal chance is given for all the 15 samples. Below are the details of the sample selection.

SL No	Medium & Small Scale Steel Companies (Population of the study)
1	Adhunik Industries Ltd
2	Bedmutha Industries Ltd
3	Bharat Wire Ropes Ltd
4	Grand Foundry Ltd
5	Hisar Metal Ltd
6	Jindal Stainles Ltd
7	Kamdhenu Ltd
8	Manaksia Coated Metals & Industries Ltd
9	Mukand Ltd
10	OCL Iron and Steel Ltd
11	SAL Steel Ltd
12	Shah Alloys Ltd
13	Technocraft Industries (India) Ltd
14	Usha Martin Ltd
15	Vardhman Special Steels Ltd

LIMITATION OF THE STUDY

- Study is restricted to three financial years from 2016-17 to 2018-19.
- Study is dependent on the secondary data and all those limitation that applicable to secondary data is applicable.

LEVERAGE AND PROFITABILITY

RATIOS

Operating Leverage = (Contribution)/EBIT

Financial Leverage = EBIT/EBT

Combined Leverage = Contribution/EBT

Return on Assets = (Profit Before Tax)/(Total Assets)

Earnings Per Share = (Earnings Available to Equity Share Holders)/(Number of Equity Shares)

DATA ANALYSIS AND HYPOTHESIS TESTING

Operating leverage shows the operating risk of the company if operating leverage is less or negative then the risk of the company will be high. In the above data, Bharath Wire Ropes Ltd is having negative Operating leverage and its ROA & EPS is negative. But other companies like Adhunik Industries Ltd, Hisar Metal Ltd, Kamdhenu Ltd, and Shah Alloys Ltd having positive Operating leverage hence they are able to have Positive EPS. Financial Leverage shows the financial risk of the company. Most of the companies having positive financial leverage but Usha Martin Ltd is having negative FL and it shows that financial risk is more in this company.

Combined leverage shows the overall risk of the company. Usha Martin Ltd is having high risk among the other selected companies. As per the above OL, FL and CL Adhunik Industries Ltd, Hisar Metal Ltd, and Kamdhenu Ltd are having lowest risk when compared to Bharat Wire Ropes Ltd, OCL Iron and Steel Ltd, Shah Alloys Ltd and Usha Martin Ltd. Shah Alloys Ltd is having risk because the investment that is done on the total assets is very high and recovery of that takes few more years and until that this company will be in the risk.

Data Analysis and Hypothesis Testing

Company Name	Adhunik Industries Ltd	Bharat Wire Ropes Ltd	Hisar Metal Ltd	Kamdhenu Ltd	OCL and Ltd	Iron Steel Ltd	Shah Alloys Ltd	Usha Martin Ltd
Avg OL	3.8828	-13.5873	2.6208	1.3121	0.0694	2.4042	13.1892	
Avg FL	4.5208	1.2261	3.7454	1.0221	0.4673	0.9273	-33.2708	
Avg CL	16.2160	1.9680	10.0414	1.3414	0.0598	2.5816	-249.3605	
Avg ROA	0.0218	-0.0128	0.0242	1.5783	-0.1334	-0.0474	-0.0200	
Avg EPS	0.4400	-3.1633	7.9567	6.3800	-14.8567	13.3333	-6.3333	

Model Summary

MODEL	R	R SQUARE	ADJUSTED R SQUARE	STD. ERROR OF THE ESTIMATE
1	.117(A)	.014	-.160	.6354861

a Predictors: (Constant), Combined Leverage, Operating Leverage, Financial Leverage

ANOVA(b)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.095	3	.032	.079	.971(a)
Residual	6.865	17	.404		
Total	6.961	20			

a Predictors: (Constant), Combined Leverage, Operating Leverage, Financial Leverage

b Dependent Variable: Return on Assets

Coefficients(a)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.257	.199		1.289	.215	-.163	.677
	Operating Leverage	.002	.012	.043	.178	.861	-.023	.027
	Financial Leverage	-.043	.119	-1.694	-.358	.725	-.294	.208
	Combined Leverage	.006	.016	1.765	.373	.714	-.028	.040

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.202(a)	.041	-.128	10.6679457

ANOVA(b)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	82.564	3	27.521	.242	.866(a)
Residual	1934.686	17	113.805		
Total	2017.250	20			

a Predictors: (Constant), Combined Leverage, Operating Leverage, Financial Leverage

b Dependent Variable: Earnings Per Share

Coefficients(a)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Standard Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-1.103	3.344				-8.158	5.951
	Operating Leverage	.107	.198	.129	.538	.597	-.311	.524
	Financial Leverage	1.233	1.997	2.884	.617	.545	-2.980	5.447
	Combined Leverage	-.169	.273	-2.897	-.620	.543	-.745	.407

a Dependent Variable: Earnings Per Share

To test the hypothesis "multiple regression" is used and as per the significant (More than 0.05) value null hypothesis is rejected and it concludes that OL, FL and CL will impact the ROA and EPS.

CONCLUSION

Operating leverage, financial leverage and combined leverage values are very important to know the risk of an industry. If value of the leverage is low or negative then industry must increase its sales to overcome the risk of the Industry. A huge investment in the fixed assets will bring risk, if sales value is low and vice versa. The average FL and CL of selected companies (Medium and Small Scale Steel Industry) is -3.052 and -31.021 respectively and that shows that risk of steel industry is high and sales need to be increased to overcome risk or it needs to reduce its expenses.

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