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# Maximising the EPS with Leveraging

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## Abstract

Managing the resources of the organization is the most difficult and crucial task of any enterprise irrespective of the size of the organization. A sound financial management is the core of the efficient management of a business enterprise. The management of finances is much more significant for the development of small and medium enterprises. The financial manager is the pivot of the decisions taken by the firm regarding its capital structure which comprises of the use of owner's funds and debt as well. If the mix is cautiously and appropriately done, it yields beneficial results to the organization and improves the financial position of the organization. The effective use of debt provides a cushion for utilization of the funds in the organization which is called the "Leverage". Leverage is defined as the ability to influence a structure, position, system or organization in such a way that manifolds the outcomes or profitability of the effective utilization of the funds with low cost of resources yielding a relatively high amount of returns. There are financial as well as operating leverages for a firm that can be considered for analyzing the financial position of the organization. The authors in the current study have taken a case study of "Srujana Engineering Solutions Private Limited" belonging to Hyderabad, India to analyze the effect of financial and operating leverages on the profitability of the firmd.

**Keywords:** Capital structure; Financial leverage; Operating leverage; Earnings per Share; Return on assets

#### Introduction

Finance is the life blood of any organization. Especially, the manufacturing sector should be very cautious in operating their finances. The decision of the management in operating their finances decides the profitability or loss of the organization in the long run. Meeting the financial needs of the organization is not a simple task and it should be strategically planned, executed and operated at every level of the management and at every functional area of the organization. Utmost, the management of debt finance is the major area where the management should be doubly cautious as it affects the financial position of the firm in the short run as well as in the long run. The debt funds should neither be excess than required, nor should be less than required [1].

#### Capital structure of capital mix

The combination of debt and equity funds in the capital is the capital structure or capital mix and the advantage which the firm gets through this perfect blend is called the "Leverage". Capital structure refers to the blend of long-term sources of funds, such as, debentures, long-term debts, preference share capital and equity share capital including reserves and surplus. An apt capital structure or target capital structure can be developed only when all those factors, which are relevant to the company's capital structure should be planned generally keeping in view the interest of the equity shareholders and financial requirements of the company [2].

The firm's capital structure is considered to be optimum when the market value of shares in maximized. The use of debt affects the return and risk of shareholders; it may increase the Return on Equity funds, but it increases risk as well and sometimes if the debt is too high it will reduce the earnings of the shareholders and thus reduces the wealth. The effects of debt funds are known as leverage in the financial parlance. Leverage literally means the effect of a lever. When the leaver pulls up the firm gets the advantage and when it comes down the firm is at an increased cost. As the effect of utilization of the debt funds also mimics a lever, the effect is known as leverage. Hence, a good financial manager should know to what extent the usage of debt is beneficial to the organization and where there should be a pause for utilization of debt funds [3-5].

#### Pre requisites of an optimum capital structure

A sound capital structure should have the essential qualities as listed below:

- 1. Shall be flexible and shall be operated with minimum costs
- 2. Shall offer less risk with good or comfortable returns
- 3. Shall match with the capacity of the firm
- 4. Shall be compatible with meeting the obligations of the firm such as interest charges and loan payments
- 5. Shall be easy to operate and with minimum management interference
- 6. Shall give maximum advantage to the firm both in the short run as well as in the long run.

#### Leverage

Leverage as defined earlier is the effect of use of debt funds in the capital structure that create the advantage like a lever. There are two

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types of leverages:

- α. Financial leverage and
- β. Operating leverage

**Financial leverage:** It can be best described as "the ability of the firm to use fixed financial charges to magnify the effects of changes in Earnings before Interest and Taxes (EBIT) on the firm's Earnings per Share. Financial leverage is traditionally viewed as the use of borrowed money in the firm capital structure, through the use of fixed income securities, such as: loans and bonds. It has a significant influence on the company's ability to achieve its ultimate goal, which is maximizing the shareholders wealth. Generally, increase in leverage results in increase in returns and risk, whereas decrease in leverage result in decreases in returns and risk. However, the use of leverage is associated with two different possible outcomes either positive: maximizing the profit or negative: minimizing the profits, and putting the company at risk because of the high debt and risk level.

**Operating leverage:** It can be described as the advantage to a firm in the operating income of how the debt finance is able to increase the operating income of the firm by increasing total inflows of revenue.

#### Effect of high degree of leverage

High Degree of leverage helps the firms to increase the revenues in the short run and also helps in increasing the share holders' wealth in the long run. However, it is more risky for a company to have a high ratio of financial leverage as the commitment towards the payment of interest and other debt charges may create a financial crunch for the organization. This in-turn also affects the credit rating of the firm in the market.

## Effect of low degree of leverage

It is less risky for a company to have a low ratio of financial leverage. With a low leverage company can meet its debt obligations and there is an opportunity for it to find new lenders in the future, however, the operating income may also be less with low degree of leverage. Another advantage is that the firm may have good credit rating in the market and hence can find the financiers easily.

#### Financial performance with leverage

Financial performance simply can be defined as the performance of the organization in meeting its long term and short term financial objectives of the firm. The financial objectives are said to be met if the firm is able to comply with all financial needs of the short term and long term effectively without any friction or risk. It the general well-being of the firm in terms of finances. The financial performance is measured through Return on Investment (ROI), Return of Equity (ROE) and Earnings per Share (EPS) etc.

## Literature Review

The following literature has been studied to begin with the study:

Gleason et al. [6] in their study of European countries, found a significant negative relationship between the financial leverage and Return on Assets and profit margin.

Berger and Di Patti [7] evidence that neither high level of financial leverage nor small capital of the company, are associate with higher efficiency of company's performance.

Yoon and Jang [8] examine the effect of financial leverage on

profitability and risk of restaurant firms. They find that financial leverage does not influence the restaurant firms' profitability. It is noteworthy that the sign of financial leverage is positive meaning that more leveraged firms had more profits on average even though it was not statistically significant.

Akhtar et al. [9] examines the relationship between financial leverage and financial performance, evidence from fuel and energy sector of Pakistan. The result shows that there is a general perception that a relationship exists between the financial leverage and the performance of the companies' i.e., most of the financial performance indicators have positive relationship among leverage and the financial performance when compare with debt to equity ratio while the gearing ratio indicates negative relationships with the leverage indicators.

Rehman [10] studies the relationship between financial leverage and financial performance in listed sugar companies of Pakistan. The results shows positive relationship of debt equity ratio with return on asset and sales growth, and negative relationship of debt equity ratio with Earning per Share, net profit margin and Return on Equity. This negative relationship between debt equity ratio and Earnings per Share (EPS) support the fact that as debt increases, the interest payment will also rises, so EPS will decrease [11].

#### **Research Problem and Present Study**

Engineering services are considered to be significant in the manufacturing sector. The Indian engineering sector has seen considerable growth and development over the last few years and is accompanied many changes in the product development, process designs and offering of various services to different sectors that are of strategic importance to the growth of Indian economy.

However, the manufacturing sector should be very careful in managing the finances as a commitment to financial charges incurred in the form of interest rates and other obligations may lead to fewer funds in hand and finally lead to financial crisis. Managing the debt is very much important thus and the financial manager should know how to optimize the effect of debt on the financial structure of the organization; put in simple terms he should know how to reduce the debt and increase the wealth of stakeholders. So, the authors have chosen a firm Srujana Elite Engineering Solutions Private Limited, Hyderabad, India. The study is aimed to find the effect of financial leverage on the financial performance of the firm.

'Srujana Elite Engineering Solutions Private Limited, Hyderabad, India was the most competent and professional providers of plumbing system designing services, electrical system designing services, building construction services, fire-fighting services etc. established in the year 2009 at Hyderabad. The services of the firm are popular in the states of Andhra Pradesh and Telangana and all over the industry for its result oriented nature, perfect execution and cost competitive nature. The services are provided at par with international standards using cutting edge technologies.

#### Objectives

The objectives of the study are:

• To study the effect of degree of financial leverage on the Return on Investment.

• To study the impact of financial leverage on Return on Assets and Return on Equity and earnings.

To estimate the effect of changes in earnings due to financial

### leverage of the company.

## Methodology

The study involved the collection of primary data through interaction with industry officials and secondary data collected and analysed through the annual reports of the company for three consecutive financial years 2013-14, 14-15 and 15-16. The data collected is tabulated and used for finding various factors that have a bearing on the select parameters of the study. Also trends are plotted for debt to share-holder's funds, debt to total funds, debt equity ratio, Return on Investment, Return on Equity, degree of financial leverage etc.

### **Data Analysis**

The data analysis is done through measurement of percentages and ratios applicable and plotting of trend lines wherever necessary.

#### Debt to shareholder's funds ratio

This is calculated to understand the amount of debt and equity invested by the firm over the period of three years selected for the study and is calculated through the formula (Table 1):

Debt to Shareholders funds ratio=Debt/Shareholders funds.

The results are plotted through a trend line in the graph by taking years on the X axis and amounts on the Y axis. The Figure 1 shows that there is a decrease in the debt to share-holders funds over the years indicating that the firm has used more debt in 2013-14 and gradually decreased the portion of debt in the capital structure.

#### Debt to total funds ratio

This is calculated to understand how much proportion of debt is involved in the total funds or investments of the organization over the three years period selected for the study (Table 2). It is calculated through the formula:

Debt to total funds ratio=Debt/total funds.

The trend line indicates that over the period of three years the debt to total funds decreased indicating that the firm is decreasing the proportion of debt in the total funds gradually (Figure 2).

**Rate of Return on Investment:** This is calculated to understand how much return is yielded on the funds employed through equity as well as debt (Table 3).

Formula: Rate of Return on Investment=Earnings after taxes/total funds\*100.

The rate of return is increasing over the years indicating that the firm's performance over the years is proving good by reducing the investment on debt funds (Figure 3).

**Degree of financial leverage (DFL)**: This is calculated to understand the effect of debt financing on the overall financial performance of the organization (Table 4). It is calculated through the formula:

DFL=EBIT/EBT

Years	Secured loans	Shareholder's funds	Debt to shareholder's funds ratio
2013-14	5935520	100000	59.35
2014-15	4080228	100000	40.8
2015-16	2655297	100000	26.55

Table 1: Calculation of debt to shareholder's funds ratio



Years	Debt	Total funds	Debt to total funds ratio
2013-14	5935520	6327397	0.94
2014-15	4080228	6465542	0.63
2015-16	2655297	12086303	0.21

Table 2: Calculation of debt to total funds ratio.



Year	EAT	Total funds	Rate of Return on Investment
2013-14	305877	6327397	4.83
2014-15	1993437	6465542	30.83
2015-16	7045692	12086303	58.29

Table 3: Calculation of rate of Return on Investment.



Years	EBT	Financial charges	EBIT	Degree of financial leverage
2013-14	440763	-	440763	1
2014-15	2882726	399358	3282084	1.138
2015-16	10192958	313451	10506409	1.031
	Years 2013-14 2014-15 2015-16	Years EBT   2013-14 440763   2014-15 2882726   2015-16 10192958	Years EBT Financial charges   2013-14 440763 -   2014-15 2882726 399358   2015-16 10192958 313451	Years EBT Financial charges EBIT   2013-14 440763 - 440763   2014-15 2882726 399358 3282084   2015-16 10192958 313451 10506409

Table 4: Calculation of degree of financial leverage.

In Figure 4, graph indicates that the degree of financial leverage is high during the year 2014-15 indicating that the wealth of shareholders is maximized with use of debt funds during the year.

**Earnings per Share (EPS):** The share value of the firm indicates the increase in the share-holders funds for the firm. It also indicates the

value of the increase in the investment put by the share-holders in the firm (Table 5). It is calculated through the formula:

EPS=Earnings after taxes/number of equity shares.

The trend line indicates that the firms' EPS is maximum in the year 2015-16 indicating that the year has optimally utilized the debt funds to derive the maximum benefit (Figure 5).

**Return on Equity (ROE):** Return on Equity indicates the return on the investment made by the shareholders. Contrary to the value of Earnings per Share which indicates the wealth maximization of the share-holders funds ROE indicates the returns through annual operations of the firm (Table 6). It is calculated through the formula:

ROE=Net profit/share capital.

The trend line indicates that over the period of three years, the investment has yielded good returns on the equity invested. The maximum return is noted in the year 2015-16 (Figure 6).

**Return on Assets (ROA):** The Return on Assets (ROA) is also a measure of assessing the financial performance of the firm (Table 7; Figure 7). It is calculated through the formula:

ROA=Operating Income/Total Assets.



Year	EAT	No. of shares	EPS
2013-14	3,05,877	10,000	30.59
2014-15	19,93,437	10,000	199.34
2015-16	70,45,692	10,000	704.57



Table 5: Calculation of Earnings per Share.

Year Net profit after tax		Share capital	ROE
2013-14	3,05,877	1,00,000	3.06
2014-15	19,93,437	1,00,000	19.9
2015-16	70,45,692	1,00,000	70.4

Table 6: Calculation of Return on Equity.



Year	Operating income	Total assets	ROA
2013-14	4,40,763	90,47,258	4.87
2014-15	32,82,084	2,16,46,675	15.16
2015-16	1,05,06,408	3,02,15,987	34.77

Table 7: Calculation of Return on Assets.



**Impact of financial leverage:** The impact of financial leverage on various financial performance indicators like ROA, ROE and EPS are consolidated and presented the following table for the three years period selected for the study (Table 8).

The trend lines for all the parameters are indicated in Figure 8. As discussed earlier in various individual parameters, there is a continuous upward trend in all the years, indicating the firm is optimally investing in equity and utilizing debt funds to maximize the shareholders wealth.

#### **Research Recommendations**

• Companies' management should ensure that financial decisions made by them are in consonance with shareholders' wealth maximization objectives which encompasses the profit maximization objective of the firm.

• The amount of debt finance in the financial mix of the firm

Year	DFL	ROA	ROE	EPS
2013-14	1	4.87	3.06	30.59
2014-15	1.138	15.16	19.9	199.34
2015-16	1.031	34.77	70.4	704.57

Table 8: Impact of financial leverage on financial performance indicators.



should be at the optimal level so as to ensure adequate utilization of the firms' assets.

• The separation of ownerships and management in modern day corporation (companies) demands that agents must act in ways that are in line with the objectives of the principal in order to achieve enhanced Earnings per Share for the firm owners.

• More often than not, it is rare for any firm to depend solely on equity finance, thus, management may seek other sources of funding which may not be in the interest of equity holders. Therefore, managers should employ financial leverage in a way that enhances value for their company owners' i.e. leading to an increase in returns to equity holders.

• The management should monitor the interest charged on debt financing to avoid liquidation of the company.

### Conclusion

The deployment of funds in the firm is having a direct bearing on the financial performance of the organization. The financial performance is measured through Return on Assets (ROA), Return of Equity (ROE) and Earnings per Share (EPS). The effect of degree of financial leverage (DFL), of Srujana Elite Engineering Solutions Private Limited in the past three years has shown a declining trend while the performance variables ROE, ROA and EPS showed an increasing trend. Thus it can be concluded that the low employment of debt resulted in the improvement of the financial performance of the company. It can be concluded that the amount saved through interest charges has resulted in the growth of earnings and thus reflected in increased earnings for the shareholders through growth in EPS.

#### Limitations

Any research study would not have universal applicability. The study will be based on the knowledge of the researchers, applicability of the concepts taken for the study, time duration of the study and other constraints as well as applications. The present study is limited to the following factors

- 1. The study takes into consideration only the financial statements of one particular company and hence the research findings may not have universal application.
- 2. The study is limited to the analysis of statements for a period of three years only and hence may not hold the application of the concepts forever. The financial position of the firm may change if there is a change in the financial decision making of the firm.

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