

A STUDY ON IMPACT OF LEVERAGES ON PROFITABILITY

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ABSTRACT

Financing decision is one of the fundamental functions of corporate decision-making. It is ranked under much more preference to other functions that help financial managers on deciding where, how and when to obtain finances to meet investment needs of the firm. Financial leverage and financial performance are fundamental issues in corporate finance. As per the pecking order theory, an optimal structure of capital is derived a tough balancing of the costs that are related to debt financing and tax advantage benefit for use of debt finance. The study objectives was to evaluate the effect of financial leverage on financial performance of non-financial firms listed at the Nairobi Securities Exchange. This study used a quantitative research design. The population of the study was made up of the 48 non-financial firm listed at NSE. This study employed a correlation analysis and a multiple linear regression method in analyzing the collected data. The study found that financial leverage had a significant negative relationship with financial performance while firm size had positive and insignificant relationship with financial performance and liquidity had a significant positive relationship with financial performance of non financial firms listed at the NSE. This study concluded that financial leverage has an adverse effect on financial performance whereas the size of the firm improves the financial performance and liquidity improves (increases) financial performance of the listed non-financial firms. The study recommended that management of the non financial firms listed at the NSE should employ minimal debt level or use an optimal debt level and focus on growing their firms to ensure that they enjoy the economies of scale associated with large firms, also to attract good management thus to improve their financial performance.

I. INTRODUCTION

INTRODUCTION TO LEVERAGES:

To maximize the value of the share, the firm has to make investment and finance decisions. Financing decision represents the ways of financing the investment decision determines the amount of funds required.

The various sources of finance include debentures, preference shares, long-term loans, retained earnings or by issuing ordinary shares.

The debt equity mix of a firm is known as capital structure. Debentures have payments of interests. Equity has payment of dividend. The introduction of debt in the capital structure increases the component of equity because debentures are tax deductible.

The term leverages means ability of the firm in using fixed cost assets and funds towards magnifying economic welfare of its owner. The leverages relation to the employment of funds for which the company has to pay a fixed cost or fixed return. When the company's returns exceed the cost of fixed assets, then it is called as favorable leverage. High expense of leverage has higher risk, but higher expected return.

Leverages are of three type's namely financial leverage, operating leverage and combined leverage.

Leverage ratios are divided in to the following types those are,

1. Debt-Equity ratio
2. Interest coverage ratio
3. Current liabilities to Net worth ratio



Profitability ratios classified in to the following types those are,

1. Return on investment ratio
2. Return on equity capital ratio

1. FINANCIAL LEVERAGE:

The fixed cost results in financial leverage and cause PAT to vary along with change in EBIT. The fixed changes among sources of funds, such as debt and preference capital along with the owners equity etc, in capital structure is described as financial leverage.

The company will have to plan its capital structure initially at the time of its promotion subsequently; whenever funds have to be raised to finance investments a capital structure is decision involved.

$$\text{Financial leverage} = \frac{\text{Operating profit}}{\text{PBT}}$$

Degree of financial leverage:

It is defined as the percentage change in EPS due to given percentage change in EBIT.

$$\text{Degree of Financial leverage} = \frac{\text{Percentage change in EPS}}{\text{Percentage change in EBIT}}$$

2. OPERATING LEVERAGE:

Operating leverage is a tendency of operating profit to vary disproportionately with sales. It can be worked based on the factors namely the amount of fixed charges, the contribution margin and the volume of sales.

The operating leverage is the firm’s ability to use fixed operating charges to magnify the effects of changes in sales and it’s EBIT. Operating leverage can be measured by degree of operating leverage.

$$\text{Operating leverage} = \frac{\text{Contribution}}{\text{Operating profit}}$$

Degree of operating leverage:

It is defined as the percentage change in earnings before interest and taxes to a given percentage change in sales.

$$\text{Degree of Operating Leverage} = \frac{\text{Percentage change in EBIT}}{\text{Percentage change in SALES}}$$

3. COMBINED LEVERAGE:

Operating leverage measure Earnings before interest and taxes (EBIT) and it explain about the degree of operating risk while financial leverage measures earnings after interest and taxes and it explains degree of financial risk.

But, both the leverages are closely concerned with the firm’s ability to meet fixed charge. If both leverage are combined, we get composite leverage and the risk associated. The risk associated with composite leverage measures the overall sensitivity of EBIT to change in sales.

Operating and financial leverage together cause wide fluctuations in EPS for a given change in sales. If a company employs high levels of operating and financial leverage even small change in the level of sales will have dramatic effect on EPS.

$$\text{Combined Leverage} = \frac{\text{Contribution}}{\text{PBT}}$$

Degree of Combined Leverage:

It is defined as the percentage change in EPS in due to given percentage change in sales.

$$\text{Percentage change in EPS}$$



$$\text{Degree of Combined leverage} = \frac{\text{Percentage change in SALES}}{\text{Percentage change in SALES}}$$

$$\text{(OR) DCL} = \text{DOL} \times \text{DFL}$$

Where DCL = Degree of Combined Leverage
DOL = Degree of Operating Leverage
DFL = Degree of Financial Leverage

The degree of operating and financial leverages can be combined to see the effect of total leverages on EPS associated along with a given change in sales.

Earnings before Interest and Tax:

Earnings before interest and interest and taxes accountants like to use the term net operating income for this income statement item, but finance people usually refer to it as EBIT; either way, on an income statement it, is the amount of income that a company has after subtracting operating expenses from sales (hence the term net operating income).another way of looking at it is that this is the income that the company has before subtracting interest and taxes (hence EBIT).

Earnings after Tax:

Earnings after taxes, accountants call this net income or net profit after taxes but finance people usually refer to it as EAT.

Earning per Share:

Earning per share, this is the amount of income that the common stockholders are entitled to receive (per share of stock owned).this income may be paid out in from of dividends, retained and reinvested by the company, or a combination of both.

NEED OF THE STUDY

- At this competitive world Leverage analysis contribute a lot in maximizing the profits of a company by reducing the fixed cost assets.
- The Leverage analysis is an important tool to analyze the impact of alternative financial plans on the shareholder's income and it helps to determine the relationship between EBIT-EPS.
- Leverage refers to the use of a fixed asset or sources of funds which involves fixed costs or fixed returns.
- Profit is volume of earning on a specified day or during a period of time.
- The study 'Impact of Leverages on Profitability' helps to understand how various factors influence the Profitability position of the company.
- Based on that the company has a chance to reduce the fixed cost assets and improve the profitability position in order to provide the fair returns to the share holders.

SCOPE OF THE STUDY

The study is primarily confined the all activities of the organization. The study consists of only the past performance of the company over a period of 5 years. The study is based secondary data only. It guides the management to take the measures for reducing the fixed cost assets.

OBJECTIVES OF THE STUDY

- This study is aimed at analyzing profitability, leverages and earnings before interest and taxes (EBIT) and earnings per share (EPS) with a view to examining their relative importance and impact on overall profitability and earnings per share.
- To analyze the impact of EBIT on EPS.
- To identify the impact of SALES and EBIT on earnings of the shareholders and to know the profitability of the company.
- To determine the relationship between SALES-EBIT, EBIT-EPS and EPS-SALES.

II. RESEARCH METHODOLOGY

Based on the objectives of the study, exploratory research has been adopted. Exploratory research is one, which largely interprets the already available information. It makes use of secondary data and lays emphasis on analysis and interpretation of the existing and available information.

Research is a common parlance refers to a search for knowledge. Research as a scientific and systematic search for pertinent in formulation on a specific topic. It is a careful investigation or inquiry especially through search for new facts in any branch of knowledge.

SOURCES OF DATA:

The analysis purely depends on the secondary data. The secondary data has been collected from published annual reports of the company.

Secondary Data:

This data is collected directly from the company in the form of brochures, pamphlets annual reports, documents and other forms.

LIMITATIONS OF THE STUDY

- The information used is primarily taken from historical annual reports available to the public and the same doesn't indicate the current situation of the firm.
- The study was done only for a period of 45 days. So time was not sufficient to collect full pledged information.
- This report is not helpful in investing in Chettinad cements.
- Either through disinvestments or capital market.
- The accounting procedure and other accounting principles are limited by the changes made by the company, may vary fixed assets performance.

III. REVIEW OF LITERATURE

LEVERAGE ANALYSIS:

To maximize the value of the share, the firm has to make investment and finance decisions. Financing decision represents the ways of financing the investment decision determines the amount of funds required.

The various sources of finance include debentures, preference shares, long-term loans, retained earnings or by issuing ordinary shares.

The debt equity mix of a firm is known as capital structure. Debentures have payments of interests. Equity has payment of dividend. The introduction of debt in the capital structure increases the component of equity because debentures are tax deductible.

The term leverages means ability of the firm in using fixed cost assets and funds towards magnifying economic welfare of its owner. The leverages relation to the employment of funds for which the company has to pay a fixed cost or fixed return. When the company's returns exceed the cost of fixed assets, then it is called as favorable leverage. High expense of leverage higher risk, but higher expected return.

Leverages are of three type's namely financial leverage, operating leverage and combined leverage refers to the use of fixed assets.

Operating leverage is determined by the relationship between the firm sales revenues and its EBIT. The EBIT are also generally called as operating profit. Operating leverage affects firm's operating profit.

Financial leverage represents the relationship between the firms EBIT and the earnings available for ordinary shareholders. The operating leverage is the firm ability to use fixed operating charges to magnify the effects of changes in sales and it's EBIT.



Financial performance on leverage analysis of the company has been measured on the basis of operating, financial and combined leverage. Important statistical tools and techniques like correlation analysis.

MEANING OF FINANCIAL LEVERAGE:

Company can finance its investments by debt and Equity. The Company may also use preference capital. The rate of interest on debt is fixed irrespective of the company’s rate of return on assets. The company has a legal binding to pay interest on debt. The rate of preference dividend is also fixed but preference dividends are paid when the company earns profits. The ordinary shareholders are entitled to the residual income.

That is, earnings after interest and taxes belong to them. The rates of the equity dividend are not fixed and depend on the dividend policy of a company.

The use of the fixed charges sources of funds, such as debt and preference capital along with the owner’s equity in the capital structure, is described as financial leverage or gearing or trading on equity. The use of trading on equity is derived from the fact that it is the owner’s equity that is used as a basis to raise debt, that is, the equity that is turned upon.

IV. DATA ANALYSIS & INTERPRETATION

FINANCIAL LEVERAGE:

It tells the extent of the change in earnings before tax due to change in operating income. When a firm procures debt capital to finance its needs, it is said to have financial leverage. It is calculated by using the below formula as,

$$\text{Financial leverage} = \frac{\text{Operating profit}}{\text{PBT}}$$

Calculation of Financial leverage

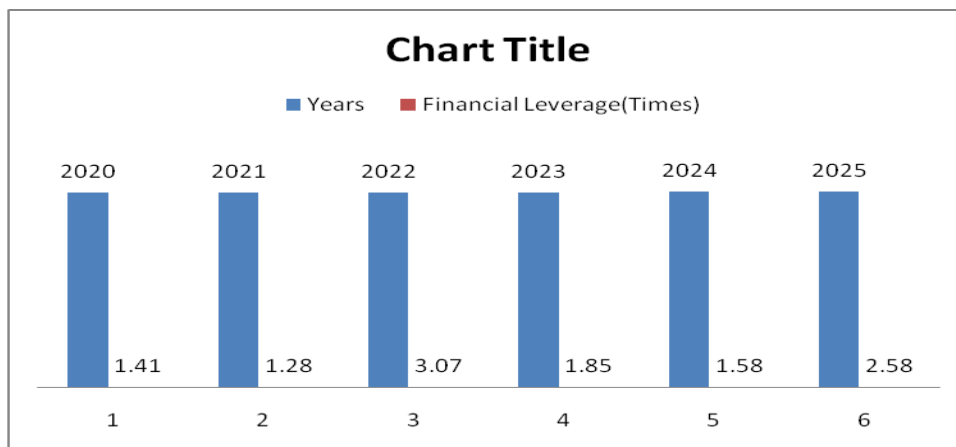
(Rs in Lakhs)

TABLE 4.1

Years	Operating profit	PBT	Financial Leverage(Times)
2020	4549.19	3218.04	1.41
2021	4463.84	3474.25	1.28
2022	1924.07	626.84	3.07
2023	3997.1	2164.74	1.85
2024	6304.03	4001.44	1.58
2025	7430.3	2882.82	2.58

Financial leverage

GRAPH 4.1





INTERPRETATION:

The above table shows the Financial Leverage during the study period 2020-2025. It is high in the year 2021 this is due to Operating profit is more compare with PBT. It indicates the favorable financial leverage rate of return on investment of a firm is higher than the cost of debt. In the year 2021 it is low because of Operating profit decreases. It indicates the unfavorable financial leverage.

DEGREE OF FINANCIAL LEVERAGE:

It is defined as the percentage change in EPS to a given percentage change in EBIT. The formula is as follows,

$$\text{Degree of Financial Leverage} = \frac{\text{Percentage change in EPS}}{\text{Percentage change in EBIT}}$$

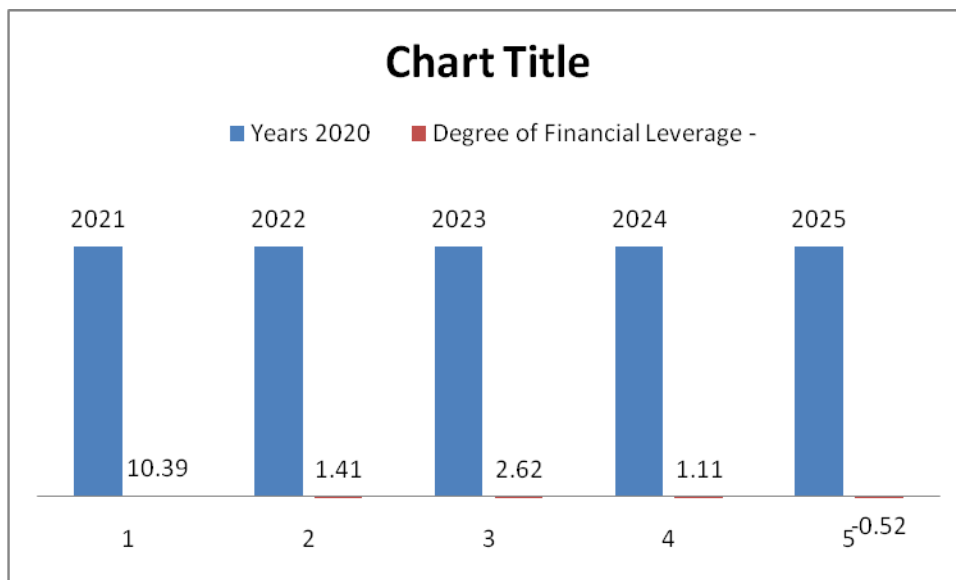
Calculation of Degree of Financial leverage (Rs in Lakhs)

TABLE 4.2

Years	% Change in EPS	% Change in EBIT	Degree of Financial Leverage
2020	-	-	-
2021	-19.54	-1.88	10.39
2022	-80.26	-56.90	1.41
2023	282.69	107.74	2.62
2024	63.82	57.72	1.11
2025	-29.14	17.87	-0.52

Degree of Financial leverage

GRAPH 4.2



INTERPRETATION:

The above table shows the Degree of Financial Leverage during the study period 2020-2025. It is high in the year 2021 due to Percentage change in EBIT is more compare with percentage change in EPS. It indicates that the company has good earning position. In the year 2024 it is low because of percentage change in EBIT is Negative. The Company must concentrate more on improving the operating profit by increasing the sales volume.

OPERATING LEVERAGE:

It occurs when fixed with fixed costs the percentage change in profits due to change in sales volume is greater than percentage change in sales volume.

$$\text{Operating Leverage} = \frac{\text{Contribution}}{\text{Operating profit}}$$

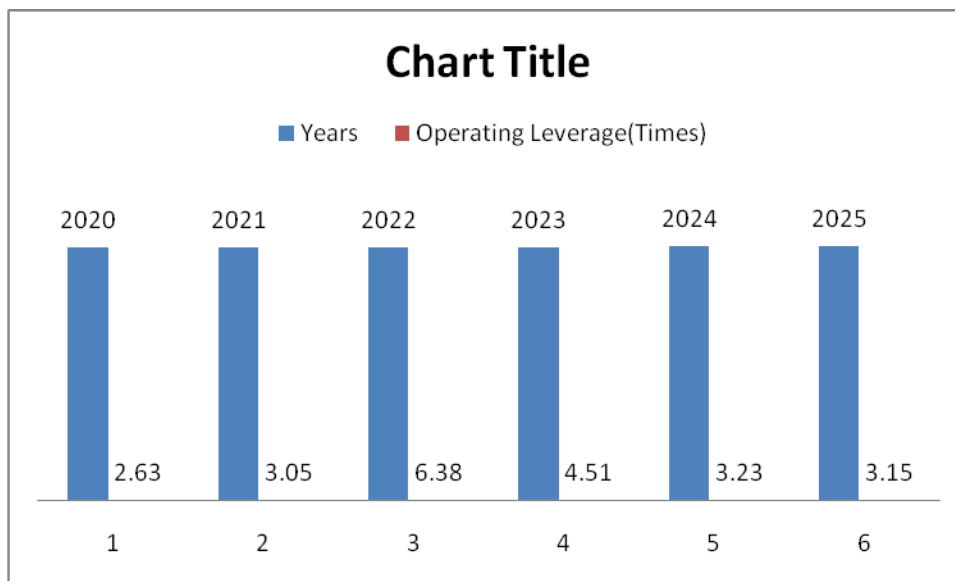
Calculation of Operating leverage (Rs in Lakhs)

TABLE 4.3

Years	Contribution	Operating profit	Operating Leverage(Times)
2020	11955.49	4549.19	2.63
2021	13612.88	4463.84	3.05
2022	12248.64	1924.07	6.38
2023	18031.08	3997.1	4.51
2024	20350	6304.03	3.23
2025	23383.16	7430.3	3.15

Operating leverage

GRAPH 4.3



INTERPRETATION:

The above table shows the Operating Leverage during the study period 2020-2025. It is high in the year 2022. This is due to Contribution is more compare with Operating profit. It means that the company has the high sales volume. The company have the ability to pay the obligations. In the year 2020 it is low because of Operating profit is more. The company has chance to pay their obligations by using the operating profit effectively.

V. FINDINGS

- The Financial Leverage is high in the year 2022 this is due to operating profit is more compare with PBT. It indicates the favorable financial leverage rate of return on investment of a firm is higher than the cost of debt. In the year 2021 it is low because of Operating profit decreases. It indicates the unfavorable financial leverage.
- The Degree of Financial Leverage is high in the year 2021 due to Percentage change in EBIT is more compare with percentage change in EPS. It indicates that the company has good earning position. In the year 2025 it is low because of percentage change in EBIT is Negative. The Company must concentrate more on improving the operating profit by increasing the sales volume.



- The Operating Leverage is high in the year 2022. This is due to Contribution is more compare with Operating profit. It means that the company has the high sales volume .The company have the ability to pay the obligations. In the year 2020 it is low because of Operating profit is more.
- The Degree of Operating Leverage shown is high in the year 2023. This is due to Percentage change in EBIT is more compare with percentage change in SALES. It indicates that the firm generates more profits with minimum efforts. In the year 2022 it is low because of percentage change in EBIT is negative. It indicates the firm doesn't use resources in an optimal manner.
- The Combined Leverage is high in the year 2022. This is due to Contribution is more compare with PBT. It shows the firm ability to manage the various expenses in order to increase the contribution. In the year 2020 it is low because of PBT is more. It indicates the firm in ability to use contribution more effectively.
- The Degree of Combined Leverage is high in the year 2023 due to Percentage change in EPS is more compare with percentage change in SALES. It mean that the company provides the more returns t their share holders for their investment In the year 2022 it is low because of percentage change in EPS is negative. The company provides low returns due to profitability position of the firm are not good.
- The Debt-Equity ratio is high in the year 2023 this is due to because of increasing amount of Debt is more compare with Equity. It indicates the unfavorable condition and it affects the profits of the organization. In the year 2021 it is low.
- A low ratio viewed as favorable from long-term creditor's point of view, because a large margin of protection provides safety for the creditors.
- The Interest coverage ratio is high in the year 2021 this is due to EBIT is more compare with interest. The higher ratio gives security to their lenders in respect of their periodic interest income. In the year 2022 it is low because of EBIT decreases. The lower ratio indicates the firm inability to pay interest to the lenders.
- The Current liabilities to Net worth ratio is high in the year 2022. This is due to Current liabilities is more compare with Net worth. It indicates the weak financial position of the company. The company doesn't have the ability to pay the amount of current liabilities. In the year 2025 it is low because of Net worth is more compare with Current Liabilities. It indicates the strong financial position of the company.
- The Return on Investment ratio is high in the year 2020 due to PAT is more compare with Capital employed. It indicates the good profitability position of the company. Higher the ratio, the better it is. In the year 2022 it is low because of decrease amount of PAT. It indicates the weak profitability position of the company.
- The Return on Equity capital ratio shown is high in the year 2020 due to PAT is more compare with Equity Share Capital. It means that the company provides more returns to their share holders on their investment. In the year 2022 it is low because of decrease amount of PAT. The company must concentrate more on improving the profit after tax amount in order to provide fair returns to their share holders.
- The coefficient of correlation between Sales and EBIT is 0.998348. Therefore there is a strong relationship between Sales and EBIT because 100% changes in Sales that must be lead to 99.83 percent change in EBIT. It shows positive relationship between Sales and EBIT.

VI. SUGGESTIONS

- The variability of the EBIT and EPS depends on the sales, so the company should concentrate more on the growth of the sales to maximize the earnings of shareholders.



- The degree of operating leverage is a tool which measures the relationship between EBIT and Sales. (If $DOL=6$ means as increase of 100% in sales will lead to a 600% increase in EBIT). So it is suggested to the company try to increase the degree of operating leverage by increasing sales.
- The degree of financial leverage is a tool which measures the relationship between EBIT and EPS. In order to increase the degree of financial leverage the company tries to adopt optimal debt in the capital structure because EPS increase faster than EBIT when debt is introduced.
- During the study period the company has the high profitability in the year 2016 which has return on investment of 34.21%. So it is suggested to the company to maintain same level of performance as that of previous years.
- The forecasted value of EPS shows the decreasing trend to avoid this company should concentrate on improving of sales volume and reducing the unnecessary cost in order to provide fair returns to their share holders.

VII. CONCLUSION

The term Leverage means ability of the firm in using fixed cost assets and funds towards magnifying economic welfare of owner. When the company's returns exceed the cost of fixed assets, then it is called as favorable Leverage. The Leverage analysis helps to know the impact of profitability of the company. The study provides the clear picture relating to the earning position of the share holders.

The concept Impact of Leverages on Profitability helps to know how various factors effects the returns of the share holders. The study reveals that company should concentrate more on improving the sales volume even though profitability position of the firm is good. The earnings per share value decreases the company must take necessary steps to provide increase the earnings per share value by reducing the unnecessary cost and optimum utilization of resources.

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