

Principal Structure of Pharmaceutical Industry in India

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ABSTRACT

The present research is about certain findings and observations were made related to the capital structure from the data collected of the selected pharmaceutical and engineering units. In the study various capital structure ratios were calculated and the findings were concluded. The fluctuations in the debt-equity ratio, interest coverage ratio and the earnings per share were studied. The study also included the calculation of profitability ratios of the selected units. The changes in the gross profit margin, net profit margin, return on investment, and return on net worth were found out. The overall observation pertaining to both the industries under study was that there is no stability or consistency in any of the ratios which may be owing to the drastic changes in the economy. The constant volatility in the economy affects each and every sector and the same is observed in the study.

Keywords : Capital Structure, NPM, OPM, ROCE, RONW, EPS

I. INTRODUCTION

The most crucial decision of any company is involved in formulation of its appropriate capital structure. Capital structure ordinarily implies the proportion of debt and equity in the total capital of a company. The best design or structure of the capital of a company obviously helps the management to achieve its ultimate objectives of minimizing overall cost of capital, and also maximizing the value of the firm. It is thus apparent that the design of the capital structure of a company may have a bearing on the profitability of the company.

Ordinarily, increase in debt in the capital structure i.e., improvement of debt-equity ratio implies greater amount of interest payment than before. So, the company must have to be sure enough of getting steady return so as to bear the additional burden of

interest. Actually, a negative correlation should always exist between cost of capital and profitability. So, increase in cost of capital means decrease in profitability.

The present study is undertaken to find out the relationship between the capital structure and profitability and to analyze the capital structures of the selected pharmaceutical and engineering units.

The short-term creditors, like bankers and suppliers of raw material, are more concerned with the firm's current debt-paying ability. On the other hand, long-term creditors, like debenture holders, financial institutions, etc. are more concerned with the firm's long-term financial strength. In fact, a firm should have a strong short as well as long-term financial position. To judge the long-term financial position of

the firm, financial leverage or capital structure ratios are calculated.

Leverage ratios are calculated to measure the financial risk and the firm's ability of using debt to shareholder's advantage. Leverage ratios may be calculated from the balance sheet items to determine the proportion of debt in total financing. They are also computed from the profit and loss items by determining the extent to which operating profits are sufficient to cover the fixed charges.

These ratios help in ascertaining the long-term solvency of a firm which depends basically on three factors:

1. Whether the firm has adequate resources to meet its long-term funds requirements;
2. Whether the firm has used an appropriate debt-equity mix to raise long-term funds;
3. Whether the firm earns enough to pay interest and installment of long-term loans in time.

II. MEANING OF CAPITAL STRUCTURE

The term "Financial Management" connotes that fund flows are directed according to some plan. It connotes responsibility for obtaining and effectively utilizing funds necessary for the efficient operation.

A formal definition of financial management would be the determination, acquisition, allocation and utilization of financial resources, usually with the aim of achieving some specific goals. To be more specific financial management is about analyzing financial situations, making financial decisions, setting financial objectives, formulating financial plans to attain those objectives, and providing effective systems of financial control to ensure plans progress towards the set objectives.

Thus, a financial manager is primarily concerned with two main types of interrelated decisions, i.e. investment decisions and financing decisions.

- Investment decision includes:
 - Strategic investment decision
 - Tactical/operational investment decisions
- Similarly financing decision also includes:
 - Strategic financing decision
 - Tactical/operational financing decisions.

III. PROFITABILITY OF ENGINEERING UNITS

A. Net Profit Margin

NPM ratio establishes a relationship between net profit and sales and indicates management's efficiency in manufacturing, administering and selling the products. This ratio is the overall measure of the firm's ability to turn each rupee sales into net profit. If the net margin is inadequate, the firm will fail to achieve satisfactory return on shareholders' funds. The net profit margin is indicative of management's ability to operate the business with sufficient success not only to recover from revenues of the period, the cost of merchandise or services, the expenses of operating the business and the cost of the borrowed funds, but also to leave a margin of reasonable compensation to the owners for providing their capital at risk.

There is a variation in the net profit of all the engineering units. In case of Elecon there was a constant growth in the net profit for 4 years but it fell in the fifth year. In case of FAG and GMM the net profit increased in the first two years but fell in the third year and the rise and fall continued in the fourth and fifth year respectively. Bosch and Ingersoll are exceptions. Bosch had seen a constant fall in the net profit over all the five years. The variations in Ingersoll were too wide. It was at 23.91% in 2005, from where it directly dropped down to as low as 6.39% and 7.1% in 2007 & 2008 respectively. In 2010 there

was a tremendous rise to 52.91 % and once again fell to 15.53%.

B. Operating Profit Margin

Operating profit is also known as EBIT and is found on the company's income statement. EBIT is earnings before interest and taxes. The operating profit margin looks at EBIT as a percentage of sales. The OPM ratio is a measure of overall operating efficiency, incorporating all of the expenses of ordinary, daily business activity.³

The OPM of all the units except Ingersoll ranged from 15% to 20% approximately. Elecon & Ingersoll have shown an increasing trend. The OPM of Elecon has grown from 15.5 % to 18.89% in the five year period, whereas that of Ingersoll Rand has grown from 5.22% to 12.32%. The OPM of FAG & Bosch has shown a declining trend over the period. GMM's OPM showed a rise in the second year from 15.96% to 18.5% and then it went on falling upto 11.67% in 2012.

C. Return on Capital Employed

It is also termed as Return on Investment. The term investment refers to the total assets. The funds employed in net assets are known as capital employed. The conventional approach of calculating return on investment is to divide profit after taxes by investment. The ROCE ratio is an important profitability ratio because it measures the efficiency with which the company is managing its investment in assets and using them to generate profit. It measures the amount of profit earned relative to the firm's level of investment in total assets. The ratio is an indicator of the measure of the success of a business from the owners' point of view.

There is a wide variation in the ROCE of all the units. ROCE of Elecon is in the lowest range in between 5.52% and 11.64%. ROCE of Ingersoll varies largely between 7.38% and 39.94% whereas that of Bosch varies between 9.78% and 25%. The variations in FAG

& GMM are not so wide. But looking to all the units there is always a rise and fall in the ROCE of all the units over the five year period.

D. Return on Net Worth

The Return on Net Worth ratio is perhaps the most important of all the financial ratios to investors in the company. It measures the return on the money the investors have put into the company. This is the ratio potential investors look at when deciding whether or not to invest in the company. RONW indicates how well the firm has used the resources of owners. The earning of a satisfactory return is the most desirable objective of a business. The ratio of net profit to owners' equity reflects the extent to which this objective has been accomplished. This ratio is an important yardstick of performance for equity shareholders since it indicates the return on the funds employed by them.

All the companies have shown a fall in the RONW during the five year period. The RONW of Ingersoll has deeply fallen from 27.27% in 2007 to 7.38% in 2008, followed by a slight rise in 2009 and then it sharply rose to 40.02% in 2009 and continued its trend of a steep fall once again in 2012. The RONW of Bosch was as high as 41.69% in 2008 and then it fell to 27.22% in 2009. It continued to fall till 2012. Elecon had an upward RONW in the initial period of the study till 2009 and then it slightly fell in 2010 and further fell in 2011. The overall observation showed that the return on net worth in all the engineering units fell over the period of study.

E. Earnings Per Share

Earning per share is another way to measure the profitability of shareholders' investment. It is calculated by dividing the profit after taxes by the total number of shares outstanding. EPS calculations made over years indicate whether or not the firm's earnings power on per-share basis has changed over that period. The EPS helps in determining the market

price of the equity shares of the company. A comparison of EPS of the company with another will also help in deciding whether the equity share capital is being effectively used or not.

Among all the five engineering units under study, the earnings per share of Ingersoll has reached the highest, i.e., Rs.88.87 during 2008. Elecon has the lowest earnings per share among all the units, i.e. Rs.6.19 during 2009. There are wide fluctuations in the EPS of this unit. In the year 2008 it rose to Rs.48.85 from Rs.17.78 in 2009 and then it continued falling from 2010 to 2012. Ingersoll also had an upward and downward trend in its EPS. The EPS of FAG Bearings and Bosch did not show much fluctuation as Elecon & Ingersoll. The EPS in FAG was continuously rising from 2008 to 2009 and then fell in 2012. The EPS in Bosch & GMM is continuously rising and falling in all the five years.

IV. PROFITABILITY OF PHARMACEUTICALS UNITS

A. Net Profit Margin

Sun's Ltd. has the highest range of NPM from among all the five pharmaceutical units under the study. It was 30.35% in 2008 and continuously went on increasing and reached to 45.6% in 2010. The NPM of Cadila ranges between 12.05% to 15.25%. It has an upward trend from 2008 to 2009 with a negligible fall in 2010 and again a rise in 2012. Alembic had a continuous rise and fall in all the years, with 9.86% in 2008 to 12.31%, 10% and 11.18% in 2009, 2010 and 2011 respectively. It had a great fall in its NPM during 2012. The margin went as low as 0.66%. The NPM of Torrent was at 10.66% in 2008, then fell to 9.41% in 2008 and then went on rising from 12.63% to 15.76% from 2009 to 2010. Lupin had a growth in its NPM in the initial four years of the study from 7.28% in 2008 to 16.3% in 2008 and then there is slight fall to 14.09% in 2009. It is observed that the growth in the NPM of

Sun's is the highest from among all the pharma units and the second highest growth is seen in Lupin.

B. Return on Net Worth

The fluctuation in the return on net worth of all the units is somewhat similar during the five year period of study. Cadila and Lupin show a similar pattern in the RONW. It is increasing in the first three years and then there is a slight fall in the last two years of study. But the growth in the RONW of Lupin is higher than that of Cadila. Alembic and Sun's showed a similar pattern in the RONW. Both the companies showed a rising RONW in the first two years and then it starts decreasing in the remaining two years. Here it is noteworthy that the RONW of Alembic fell steeply to 2.22% in 2010 from 32.86% in 2012. This similar observation has been made in the NPM also. Torrent has an increasing RONW for all the four years but it slightly falls in the fifth year.

C. Return on Capital Employed

Sun had the highest ROCE of 23.91% in 2009 whereas Alembic has the lowest ROCE of 0.9% in the same year. It is observed that Sun is the only company having a constantly increasing ROCE over all the five years of study. All the other units under study have a fluctuating ROCE. The ROCE of Cadila and Alembic were increasing in the initial two years; thereafter it continuously fell for Cadila whereas for Alembic there was a fall followed by a rise and a fall again. Lupin had a rising ROCE from 2008 to 2009 then it falls in 2010 and again rises in 2012. Torrent is an exception. It has a RONW of 12.24% in 2008 which falls to 10.52% in 2009 and during all the years there is a constant up and down.

D. Operating Profit Margin

It has been observed that the OPM of all the four pharmaceutical companies under study except Sun's ranges between 11.29% and 22.68% during 2008 to 2012. On an average the OPM is around 16% to 17%. Sun has an OPM of 11.95% in 2008 but thereafter it

fell sharply to 1.16% in 2009 and became negative in 2010 i.e. -3.28%. In 2011 it again increased to 8.38% and fell to 2.91% in 2012. The OPM has remained very low in this company during the five years compared to other four companies. The variations in OPM of Cadila were between 14.34% and 18.61%. Cadila showed an increase in the OPM in 2009 to 18.61% from 17.22% in 2010 and then it has been continuously decreasing. Alembic has shown a growth in the OPM till 2009 and then it has fallen till 2012. It was lowest in 2009 at 11.29% and highest in 2010 at 17.01%. The OPM of Torrent has constantly increased from 13.53% in 2008 to 22.68% in 2012 and slightly decreased to 22.5% in 2011. The OPM of Lupin was an up and down trend in all the five years. It increased from 11.95% in 2008 to 18.35% in 2009, fell to 16.79% in 2010, rose to 21.01% in 2011 and fell again to 19.43% in 2012.

E. Earnings Per Share

Sun had an exceptionally high EPS in comparison to other pharmaceutical companies under study. It has a very high growth rate in its earnings per share. The EPS had grown from Rs.16.48 to Rs.24.91, Rs.33.5, Rs.48.96 and Rs.61.09 from 2005 to 2009, respectively. The lowest range of EPS was that of Torrent. There was a rising and falling trend over the years. It was the highest at Rs.1.03 in 2008 and fell to the lowest at Re.0.42 in 2009; thereafter it slightly increased to Re.0.48, Re.0.53 and Re.0.58 from 2008 to 2012. Lupin showed a continuous rise and fall in its EPS during all the five years. It was lowest in 2008 at Rs.21.02 and highest at Rs.54.02 in 2009. Alembic had shown great fluctuations in its EPS. It had an EPS of Rs.27.95 in 2008 which increased to Rs.38.74 in 2008 and fell sharply to Rs.7.2 in 2009, increased slightly to Rs.10.47 in 2010 and again fell steeply to Rs.3.32 in 2011. The lowest fluctuations in the EPS were observed in Cadila. It fluctuated between Rs.21.61 to Rs.36.06. There was a rise and fall tendency.

V. ANALYSIS

Table 1: Statement showing the Earnings Per Share of Engineering & Pharmaceutical Units

Engineering Units	Year	EPS	Pharmaceutical Units	Year	EPS
Elecon	Mar ' 08	17.78	Cadila	Mar ' 08	25.53
Ingersoll		34.6	Alembic		3.32
FAG		28.82	Torrent		0.58
Bosch		40.64	Sun		61.09
GMM		26.05	Lupin		50.35
Elecon	Mar ' 09	48.85	Cadila	Mar ' 09	24.65
Ingersoll		8.96	Alembic		10.47
FAG		45.04	Torrent		0.53
Bosch		34.34	Sun		48.96
GMM		41.8	Lupin		54.02
Elecon	Mar ' 10	17.75	Cadila	Mar ' 10	21.61
Ingersoll		13.79	Alembic		7.2
FAG		47.86	Torrent		0.48
Bosch		46.92	Sun		33.5
GMM		8.79	Lupin		37.6
Elecon	Mar ' 11	7.24	Cadila	Mar ' 11	36.06
Ingersoll		88.87	Alembic		38.74
FAG		57.6	Torrent		0.42
Bosch		31.1	Sun		24.91
GMM		10.64	Lupin		45.52
Elecon	Mar ' 12	6.19	Cadila	Mar ' 12	29.92
Ingersoll		21.29	Alembic		27.95
FAG		39.44	Torrent		1.03
Bosch		36.06	Sun		16.48
GMM		7	Lupin		

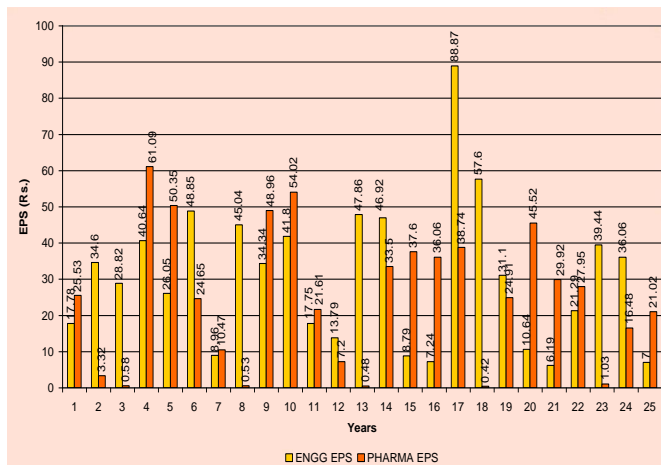


Figure 1: Earnings per Share of Engineering & Pharmaceutical Units

The above graph shows the comparison of earnings per share in the engineering and pharmaceutical industry during five years in five units in each industry. As in the case of debt-equity ratio the earnings per share in the engineering industry is also the highest at Rs.88.87. The highest EPS in the pharmaceutical industry is only Rs.61.09.

The overall observation is that the earnings per share is higher in the engineering industry than in the pharmaceutical industry.

VI. CONCLUSION

This study attempts to explain the variations in the capital structure in the pharmaceuticals companies between process patent period and the transition period. On the basis of capital structure theories and to see if there is any shift in the capital structure in the same period. The results are broadly consistent with the capital structure theories. The most important explanatory variable for the capital structure pattern is asset type measured by the proportion of fixed assets to total assets. The intra-industry variations in the capital structure for the pharmaceutical companies can be explained by the existing theories of capital structure. The higher the proportion of fixed assets to total assets and the higher the growth rate of assets, higher is the industry debt

equity ratio. The lower the ratio of operating income to total assets and operating income to net sales, higher is the debt equity ratio.

Every study has its own limited scope. The present study is no exception to this fact as well. There is still a wide scope for further research in the direction of the study. Researchers can conduct research from various aspects and can give more fruitful results. There is scope for conducting a study of capital structure of selected pharmaceutical and engineering units in states other than Gujarat. A similar study can be made for other industries in Gujarat and other states as well. An inter-state comparison of industries on the basis of capital structure can be made. The effect of cost of capital on the capital structure of a company can be studied. There is scope for studying the effect of the capital market on the capital structure. A study can be conducted to test the various determinants that influence the capital structure of a company. Research can be conducted to make a comparative study of the capital structures of public and private enterprises. Capital structures of companies across the border can be studied.

The study covered the survey only from Gujarat State; further research could be conducted on other wider population may provide richer and more valuable information for the society.

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