

DEBT/EQUITY COMPARISON EFFECTIVE WAY OF ANALYZING PERFORMANCE

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INTRODUCTION:

Any business organization typically requires four factors of production: land, labour, capital and entrepreneur. Land provides the necessary base on which production and other economic activities can be carried out. Labour provides the human resources necessary to process the raw materials in order to produce various goods. Capital renders production process easier, faster, more accurate and efficient. Entrepreneur organizes the other three factors of production, innovates and takes the risk of doing business under uncertain economic environment. All four factors are crucial in any economic activity, and especially production cannot be carried out in the absence of any of these factors. Land, labour and entrepreneur are either natural or include human beings directly. Capital, the fourth factor of production is the only factor which is produced by human beings. It includes various tools, gadgets and machines, which are produced by human beings to make the production process and economic activity faster, easier and more efficient. It also makes mass production process more accurate. While the two hands of one labourer cannot very easily produce identical units of a commodity, a unit of capital can produce identical units in large quantities. In this sense, capital, as a factor of production gains special significance in the modern times when large scale production of all commodities is required in order to satisfy unlimited wants of the consumers. Moreover, capital and labour can be interchangeable to some extent. Hence, in economies where labour is scarce, production can be still carried out by employing more capital. At the same time, there are certain industries where greater use of capital can render production process much more efficient as compared to the greater use of labour, and also reduce the cost of production.

The pharmaceutical industry is one such industry where capital plays a very crucial role. At every stage in a pharmaceutical industry, i.e., at the stage of research and development of new medicines, testing of medicines, production of medicines on commercial basis, marketing and sales, and so on, capital needs to be employed. Since this human made factor of production can take different physical forms, it is usually measured in terms of the amount of money invested by a firm in purchasing different types of machinery.

Since large amounts of funds are required for investment in the capital of a pharmaceutical firm, the firms usually rely on different forms of capital. These include various types of equity, such as ordinary shares, preference shares and debentures; and also borrowed capital (debt), which includes secured and unsecured loans. The proportion of different types of capital employed by a firm defines its capital structure. The composition of a firm's capital structure reveals a lot of aspects relating to the firm, such as:

- The risk taking ability,
- The profitability,
- The current and future expansion and diversification plans of the firm,
- The scale of operations, and so on.

PROFILE OF PHARMACEUTICAL INDUSTRY IN INDIA:

The Indian pharmaceutical industry, which is now meeting over 95% of the country's pharmaceutical needs, was almost non-existent before 1970. The demand for various medicines was satisfied by the imported ones. However, the indigenous pharmaceutical companies have registered phenomenal growth during the last four decades. With the compound annual growth of 19.8% the industry has grown from Rs.4 billion in 1970 to Rs.550 billion in 2005-2006. The pharma sector has shown tremendous growth over the years. About 250 Indian pharmaceutical companies hold 70% of the market share with top players controlling about 7% of the market share.

Accounting for two percent of the world's pharmaceutical market, the Indian pharmaceutical sector has an estimated market value of about US \$8 billion. It's at 4th rank in terms of total pharmaceutical production and 13th in terms of value. It is growing at an average rate of 7.2 % and is expected to grow to US \$ 12 billion by 2010.

Pharmaceutical industry accounts for about 2.91% of total FDI into the country. The FDI in pharmaceutical sector is estimated to have touched US\$ 172 million, thereby showing a compounded annual growth rate of about 62.6%. Drugs and pharmaceuticals sector is at 8th rank in India's top 10 FDI attracting sectors. According to the Economic Survey for the year 2006-07, the value of pharma output has increased ten times over the last 15 years.

The Indian pharmaceutical industry directly employs around 500,000 people and is highly fragmented. While there are around 270 large R&D based pharmaceutical companies in India, including multinationals, government-owned and private companies, there are also around 5,600 smaller licensed generics manufacturers, although in reality only around 3,000 companies are involved in pharmaceutical production. Most small firms do not have their own production facilities, but operate using the spare capacity of other drug manufacturers.

PRESENCE IN INTERNATIONAL MARKET:

Indian multinational companies like Dr. Reddy's Lab, Cipla, Ranbaxy, etc. have created awareness about the Indian market prospects in the international pharmaceutical market. Approvals given by Foods and Drugs Administration (FDA) and ANDA (Abbreviated New Drug Application)/DMF (Drug Master File) have played an important role in making India a cost-effective and high quality product manufacturer. Furthermore, the changes that took place in the patent law, change of process patent to product patent, have helped in reducing the risk of loss for intellectual property.

TABLE 2.1: FDA ANDA Approvals for Indian Companies

Year	Number
2002	21
2003	26
2004	25
2005	52
2006	74
2007	124
2008	134
Q1 2009	50

Source: Holmes, Karen. 2009. *The Indian Pharmaceutical Industry: Diversification, Expansion & Ambitions*. Accessed from https://www.espicom.com/prodcat.nsf/Product_ID_Lookup/00001851?OpenDocument on 29 November 2009.

Geographically, the key markets for the Indian industry are India, the US, Europe, Russia and the former CIS countries, Africa and Latin America, particularly Brazil. Some companies have also begun to gain generic approvals in Australia. In the future, Japan and other Asian markets are likely to be added to this list.

The availability of a significant number of high value products has to be seen in the context of the US market. Indian companies are becoming increasingly active in the US market. In the years 2002, 2003 and 2004, the FDA approved 21, 26 and 25 ANDAs respectively for Indian pharmaceutical companies and their US subsidiaries. However, in 2005, the number increased to 52 and has been increasing year-on-year since, to reach 134 in 2008. In the first quarter of 2009, Indian companies had achieved 50 ANDA approvals, suggesting the pace is still increasing.

STRENGTHS OF INDIAN PHARMACEUTICAL INDUSTRY:

1. Competent workforce:

India has a pool of personnel with high managerial and technical competence as also skilled workforce. It has an educated work force and English is commonly used. Professional services are easily available.

2. Cost-effective chemical synthesis:

Its track record of development, particularly in the area of improved cost-beneficial chemical synthesis for various drug molecules is excellent. It provides a wide variety of bulk drugs and exports sophisticated bulk drugs. Moreover, the filing cost of ANDAS and DMFs is comparatively low for the Indian companies.

3. Legal & Financial Framework:

India has a 53 year old democracy and hence has a solid legal framework and strong financial markets. There is already an established international industry and business community.

4. Information & Technology:

It has a good network of world-class educational institutions and established strengths in Information Technology.

5. Globalization:

The country is committed to a free market economy and globalization. Above all, it has a 70 million middle class market, which is continuously growing.

6. Consolidation:

For the first time in many years, the international pharmaceutical industry is finding great opportunities in India. The process of consolidation, which has become a generalized phenomenon in the world pharmaceutical industry, has started taking place in India.

7. Capital Investment in Technology:

Owing to the availability of advanced technology at low costs, the companies can produce drugs at lower costs.

8. Contract Research & Contract Manufacturing:

There is a good scope for contract research and contract manufacturing.

9. Infrastructure:

There is a well-developed infrastructure for the pharmaceutical industry.

10. Generic Drugs:

In the last few years, the generic drug-manufacturing segment has received huge investments, in the process making it more competitive and efficient.

THE SWOT ANALYSIS OF INDIAN PHARMACEUTICAL INDUSTRY:

Apart from the strengths explained above, some of the weaknesses, opportunities and threats to the Indian pharmaceutical industry are also mentioned below:

Weaknesses:

1. Low Indian share in world pharmaceutical market (about 2%)
2. Lack of strategic planning
3. Fragmented capacities
4. Low R&D investments
5. Absence of association between institutes and industry
6. Low healthcare expenditure
7. Production of duplicate drugs

Opportunities:

1. Incredible export potential
2. Increasing health consciousness
3. New innovative therapeutic products
4. Globalization
5. Drug delivery system management
6. Increased incomes
7. Production of generic drugs

8. Contract manufacturing
9. Clinical trials & research
10. Drug molecules

Threats:

1. Small number of discoveries
2. Competition from MNCs
3. Transformation of process patent to product patent (TRIPS)
4. Outdated Sales and marketing methods
5. Non-tariff barriers imposed by developed countries

STRATEGY ADOPTED BY INDIAN PHARMACEUTICAL FIRMS:

Over the last few years, a growing number of 'authorized generic' agreements have been evident in the US and most branded companies have issued them in order to take sales and profits away from 'hostile' generic competition. While there is currently nothing to stop a branded company from issuing a licensed generic during the period of 180 days exclusivity, it has been argued that authorized generics are counter to the spirit of Hatch-Waxman, and devalue the 180-day exclusivity period by destroying the incentive for generic companies to challenge patents. Certainly some Indian companies such as Ranbaxy and Dr. Reddy's have been quick to exploit this opportunity, and the new products coming up, combined with their experience, will make them well placed to develop this area further.

Indian companies have adopted different strategies in order to penetrate regulated generics markets. Some have entered these markets through partnerships with established generic companies; others have set up their own sales and marketing organisations, either organically or through acquisitions. A number have gone one stage further and acquired manufacturing bases in their target markets. Ranbaxy acquired Ohm Laboratories in the US in 1995, providing the

company with an entry into the US market. Jubilant Organosys acquired US generic company Cadista Pharmaceuticals (formerly Trigen Laboratories) in 2005. Aurobindo Pharma acquired an FDA-compliant formulations manufacturing plant in Dayton, New Jersey in 2006. Dr. Reddy's has MHRA-approved manufacturing facilities in the UK. Wockhardt has manufacturing facilities in the UK, Ireland and France. Even competition is not new to Indian pharmaceutical companies. The Indian market is highly competitive with more than 300 organised players and branded promotional costs associated with every product, yet the industry is able to offer low-priced products and remain profitable in India. This provides Indian industry an edge over the other multinationals in the fast expanding international market in the current economic climate.

COMPANY'S PREFERENCE FOR DEBT OR EQUITY:

As discussed earlier, capital is an essential factor of production for any company. With the Indian financial markets gaining maturity, companies have resorted to various sources of finance. It needs to be remembered that the requirements of different companies are very much different. This is true not only across various industries, but also true for various companies belonging to the same industry. Keeping in mind the company's resource requirements and risk taking ability, it opts for raising finances either through the equity market or through the debt market.

The choice between debt and equity assumes significance for finance managers in a private sector company due to the fact that their decisions are expected to maximize wealth for shareholders. Debt, i.e., capital borrowed from various financial institutions like banks and industrial finance corporations, is considered to be cheaper, but it is likely to eat away profit and impose a high interest burden on the company. Moreover, with the increase in the risk involved in doing any business, financial institutions are often reluctant to grant loans to companies at low interest rate, in spite of the fact that the general interest rates may be showing a declining trend.

On the other hand, raising finance through the equity market is riskier. Of course, there are various levels of risks attached to various types of equity. Thus, it becomes crucial for a company to strike the right combination between high risk equity, i.e., ordinary shares, medium risk equity, i.e., preference shares and low risk equity, i.e., debentures. This balance also depends on the risk taking ability of the company, and different companies follow different proportions.

Both the ways of company finance have different advantages, as mentioned below:

Reasons for Equity Preference:

- Freedom in paying dividends
- Easy to raise
- Company not bound to pay dividend

Reasons for Debt Preference:

- It is a relatively cheaper source of finance
- Flexibility in debt instruments
- Easy to raise

In general, Indian firms are now showing almost equal preference for debt and equity in designing their capital structure. However, this may be different in case of specific companies.

The following capital structure ratios have to be worked out to analyze the status of the capital structure of the company:

1) Debt-Equity Ratio:

Debt-Equity Ratio indicates the relationship between the external long term liabilities and owner's funds. There is no standard formula for calculating debt-equity ratio of a company. Hence the top management on the basis of an evaluation of present and future financial markets should set the ratio.

The calculation of debt-equity ratio is done by using the following formula:

$$\text{Debt Equity Ratio} = \frac{\text{Long Term Debt}}{\text{Shareholders' Fund}}$$

Long-term debt includes secured as well as unsecured loans and shareholders' fund includes equity share capital of the company and all retained earnings.

Theoretically, there is no ideal debt-equity ratio but generally acceptable norm for the ratio is 2:1. A higher ratio than the norm shows that the outside creditors, such as the financial institutions who lend funds to the company, have larger claim than the owners of the company. A lower ratio than the norm indicates a smaller claim of the creditors. Thus, debt-equity ratio shows the margin of safety to the creditors.

2) Interest Coverage Ratio:

This is one of the conventional ratios to test the firm's debt servicing capacity and it is used widely. It shows how many times the interest charges have been covered by the funds that are available for payment of interest. It is determined by dividing the operating profit or earnings before interest and tax (EBIT) by the fixed interest on loans.

Depreciation can also be included in the calculation of interest coverage ratio because depreciation is a non-cash item and the funds equaling to the amount of depreciation are also available for interest payment. In this case, to derive the interest coverage ratio, EBDIT, i.e., earnings before depreciation, interest and tax, is divided by total interest expenses. If EBDIT is taken into consideration, then the ratio increases due to the addition of a positive value of depreciation.

Here interest coverage ratio has been calculated in two ways: first by taking EBIT and then by considering EBDIT for the purpose of comparison.

$$\text{Interest Coverage Ratio} = \frac{EBIT}{\text{Interest}} \text{ or } \frac{EBDIT}{\text{Interest}}$$

This ratio shows the number of times the interest charges are covered by funds that are ordinarily available for the payment of interest due to the company. It indicates the extent to which earnings may fall without adversely affecting the firm's ability to service its interest payments. An interest coverage ratio of 2:1 is considered to be reasonable by the financial institutions.

A very high ratio indicates that the firm is conservative in issuing debt and a very low ratio indicates excessive use of debt. A higher ratio is desirable as it means that the firm has greater ability to pay fixed interest liabilities and secured payment of interest to creditors. A lower ratio indicates excessive use of debt and that the firm does not have the ability to offer secured payment of interest to the creditors.

3) Proprietary Ratio:

Proprietary ratio is, in reality, a variant to the debt-equity ratio and it is also known as net worth to total assets ratio. It establishes the relationship between shareholders' fund and total assets of the firm. The proprietor's ratio is an important ratio for determining long term solvency of a firm.

The components of this ratio are shareholders' funds and total assets. The shareholders' funds comprises of equity share capital and reserves & surplus. The total assets on the other hand denote total resources of the concern. The ratio can be calculated as under:

$$\text{Proprietary Ratio} = \frac{\text{Shareholders' Funds}}{\text{Total Assets}} \times 100$$

The higher the ratio, the stronger the financial position of the firm, as it signifies that the proprietors have provided larger funds to purchase the assets. And, obviously, the ratio cannot exceed 100.

4) Fixed Assets to Net Worth Ratio:

This ratio establishes the relationship between the fixed assets and the shareholders' funds, i.e., share capital plus all retained earnings, of the company. It is calculated by using the following formula:

$$\text{Fixed Assets to Net Worth Ratio} = \frac{\text{Fixed Assets of the Company}}{\text{Shareholders' Fund}} \times 100$$

The ratio of fixed assets to net worth indicates the extent to which shareholders' fund is used to finance the fixed assets. Generally, the purchase of fixed assets should be financed by shareholders' equity including retained earnings. If the ratio is less than 100%, it implies that owner's funds are more than the total fixed assets and a part of the working capital is provided by the shareholders. But when the ratio is more than 100%, it suggests that owner's funds are not sufficient to finance the fixed assets and the firm has to depend upon outside parties to finance the fixed assets.

5) Fixed Assets to Long Term Fund Ratio

A variant to the ratio of fixed assets to net worth is the ratio of fixed assets to total long term funds. This ratio indicates the proportion of long term funds deployed in fixed assets. The ratio is based on the following formula:

$$\begin{aligned} \text{Fixed Assets to Long Term Funds Ratio} &= \frac{\text{Fixed Assets}}{\text{Total Long Term Funds}} \times 100 \\ &= \frac{\text{Gross Fixed Assets} - \text{Depreciation}}{\text{Total Long Tem Assets}} \times 100 \end{aligned}$$

Here, the fixed assets represent the gross fixed assets less depreciation provided on it till the date of calculation. The long term fund consists of shareholder's fund plus long term borrowings. Generally, the total of the fixed assets should be equal to the total of the long term funds. In other words, this ratio should be 100%. But in case the fixed assets exceed the total of the long term

funds it implies that the firm has financed a part of fixed assets out of current funds or out of working capital, which is not a good financial policy.

6) **Capital Gearing Ratio:**

The capital gearing ratio shows the mix of financial employed in the capital structure. It indicates the proportion between owner's funds and non-owners' funds. If the ratio is high the capital gearing is said to be high and vice-versa. High gearing means trading on thin equity base while low gearing means trading on thick equity base.

The higher the ratio is, the more unstable the ordinary shares are, because major share of the profit is absorbed by debenture interest and preference dividend, and there is a possibility of greater fluctuations in the rate of equity dividend. The ratio can be calculated as follows:

$$\text{Capital Gearing Ratio} = \frac{\text{Preference Share, Debentures \& Other Interest Bearing Capital}}{\text{Equity Shareholders' Fund}}$$

7) **Reserve to Capital Ratio:**

This ratio expresses the proportion between the amount of reserves and the amount of equity share capital. It is also useful to find out the financial position of the company. It indicates the amount of profits retained by the company against the amount of funds raised through equity share capital. As companies tend to reserve a part of their total profit for future investment purpose, the amount of reserves and surplus generally keeps increasing if the earnings of the company are increasing.

This ratio can be calculated by using the following formula:

$$\text{Reserve to Capital Ratio} = \frac{\text{Reserves \& Surplus}}{\text{Equity Share Capital}}$$

8) Dividend Coverage Ratio:

This ratio indicates the number of times the dividend is covered by net profit. This highlights the amount retained by a company for financing its future operations. It is an important ratio for understanding the possibility of securing finances from the profits earned by the company. As the profits increase, dividend coverage ratio also increases, if the equity share capital does not increase simultaneously.

The ratio is calculated by using the following formula:

$$\text{Dividend Coverage Ratio} = \frac{\text{Net Profit after Tax}}{\text{Dividend}}$$

CONCLUSION:

The analysis of the capital structure of Indian companies suggests that the company has been able to follow the principles of combining its own funds, including reserves and surplus and equity capital and borrowed funds well in order to ensure financial stability and soundness. The present paper focuses on strategic analysis of the capital structure of the pharmaceutical companies operating in India. Some of the major observations can be drawn to conclude:

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