8.1 INTRODUCTION

In the present study, some aspects of Financial Management like capital structure and its impact on profitability, evaluation of systematic risk, performance of fixed assets, working capital and its impact on profitability and analysis of financial performance by using Market Value Added (MVA) approach are covered and suggestions emanating from the conclusions are offered for ensuring a better financial performance in select pharmaceutical companies. The data used for the study for a period of ten years from 1998-99 to 2007-08 have been collected from the annual reports of pharmaceutical companies in South India. While analyzing the financial performance, both statistical and financial tools like ANOVA, Kruskal Wallies test, t-test, multiple regression analysis, coefficient of correlation, and financial ratios etc. are used. This chapter is divided into two parts - the first part presents the main findings of the study, while the second makes an attempt to suggest suitable measures for improving the financial performance of pharmaceutical companies in South India.

PART-A: FINDINGS

8.2 PERFORMANCE OF PHARMACEUTICAL INDUSTRY IN INDIA

A pharmaceutical company is a commercial business house, which may mostly focus on research, manufacturing, marketing and/or distribution of healthcare medicine, drugs, and chemicals. A group of such companies collectively constitute the pharmaceutical industry.

The origin of the current day pharmaceutical firms could be traced back to 754 B.C., when they were known as 'drugstores.' These drugstores were famous in the medieval Islamic world, Europe and North America. The first drugstore was opened in Baghdad, Iraq in 754 BC. After the discovery of insulin and penicillin in the 1920s and 1930s, respectively, these drugstores were converted into major pharmaceutical firms.
The pharmaceutical industry is one among the top most "knowledge driven" industries, as it is continuously in a state of dynamic transition. It is a lifeline industry consisting of a complex matrix of processes, operations and organizations involved in the discovery, development and manufacture of various drugs and medications. A nation with a strong pharmaceutical industry has a healthy and strong population. Therefore, the pharmaceutical industry of a country plays a very important role in providing it with a strong human capital. The Indian pharmaceutical industry is an excellent example of a highly growth oriented industry. From being a purely reverse engineering industry that focused on the domestic market, the industry has acquired a research-driven, export-oriented global presence, offering a wide range of value-added quality products and services.

Among the developing countries, India has the biggest pharmaceutical industry, which provides essential drugs at affordable prices to the country's vast population, as well as employment to millions. The industry indigenously manufactures simple painkillers, sophisticated antibiotics and complex compounds. The country's first pharmaceutical company, the Bengal Chemicals and Pharmaceutical Works, was established in Kolkata, West Bengal, in 1930. The industry's turnover has increased from US$ 0.3 billion in 1980 to about US$19 billion. The Indian pharmaceutical market accounts for nearly 2 per cent of the global market in terms of value and 8 per cent in terms of volume. It is now ranked 4th in terms of volume of production (10% of global share) and 13th in terms of domestic consumption. One reason for the lower global market value share is the lower cost of drugs in India, when compared to the cost of drugs in developed countries. The Indian pharma industry exports its products to more than 200 countries, with a sizeable share of shipments going to the US and Western Europe.
The Indian pharmaceutical industry contributes nearly 1% to the country's GDP and provides direct and indirect employment to more than 42 lakhs of people. Domestic investment in the pharmaceutical sector is at US$6.31 billion. A major part of the industry comes under the unorganized sector, while more than 20,000 licensed drug companies produce over 500 bulk drugs or Active Pharmaceutical Ingredients (API) and 50,000 formulations (finished dosages). The industry meets 40 per cent of the world's bulk drug requirement and 90 per cent of the domestic pharmaceutical needs.

The global pharmaceutical market, which recorded double-digit gains in the past few years, witnessed a significant decline in sales in 2008, due to high prices. The current economic downturn has not affected the Indian pharmaceutical industry as much as it has affected other industries, because APIs and generics produced in the country are more reasonable and affordable, when compared to those made in other parts of the world.

The Government of India allows Foreign Direct Investment up to 100 per cent in the pharmaceutical industry. The industry was able to attract FDI worth US$ 1.43 billion in April 2000 - December 2008, and US$ 0.46 billion in April 2008-April 2009.

The Indian Pharmaceutical Industry in a Nutshell

1. It is a lifeline industry, which is responsible for building a healthy and strong human resource capital for the nation.
2. It provides direct and indirect employment to more than 42 lakhs of people.
3. It mainly produces formulations (finished dosages) and bulk drugs or Active Pharmaceutical Ingredients (API).
4. It contributes 1% to India's GDP.
5. It accounts for nearly 2% of the global market in terms of value and 8% in terms of volume.
6. It is ranked 4th in terms of volume of production (10% of global share) and 13th in terms of domestic consumption.

7. It produces drugs that cost 5-50% less than the drugs made in developed countries.

8. It meets 40% of the world’s bulk drug requirement and 90% of the domestic needs.

**Growth Drivers**

**Increasing population and Competitive position** – The demand for drugs in India is expected to increase in the future, as the country’s population, which is over one billion, is expected to rise to 1.6 billion by 2050. The increasing focus of the central government as well the State governments on efforts to provide adequate health facilities and to improve their quality in rural and urban areas will drive the Indian pharmaceutical industry. In the coming four years, about US$72 billion worth of patents will expire, opening up a huge market for the Indian generic drugs, which are cost competitive. The increasing emphasis of multi-national companies on profitability, which in turn has put the focus on discovering and marketing drugs, rather than on manufacturing them, has created a market for contract manufacturing. India, a low cost and high quality producer, has emerged as a principal destination for global pharma-drug manufacturing companies.

**Pharmaceutical Retail**

The country's pharmaceutical retail market is expected to cross the US$ 10 billion mark in 2010 and be worth an estimated US$ 12-13 billion by 2012, as Indian consumer spending on healthcare is expected to increase from 7% of GDP in 2008 to 13% of GDP by 2015.

**Consumer Trends**

Growing urbanization and changing lifestyles are driving Indians to adopt western food and living habits, exposing them to severe health problems such as obesity, cardiac diseases and respiratory problems. The end result is an increase in the sales of lifestyle drugs.
8.3 CAPITAL STRUCTURE AND ITS IMPACT ON PROFITABILITY

The choice of an appropriate pattern of capital structure may depend on various factors such as the nature of the company, regularity of earnings, conditions of the money market, and attitude of the investors. A high proportion of debt content in the capital structure increases the financial risk and may lead to financial insolvency in adverse times. However, raising funds through debt is cheaper, compared with raising funds through issue of shares.

The mix of debt and equity has many implications. The use of debt capital tends to decrease the overall cost of capital and increases the wealth of the shareholders, due to the deductibility of the interest paid on debt. Debt is also relatively cheaper than equity in terms of cost of issue and interest cost, which means the use of debt financing does not dilute the shareholders' control over the enterprise. Therefore, use of debt in capital structure is most advantageous.

The primary objective of every capital structure planning is to minimize the cost of capital and maximize the equity share value. Optimum capital structure is obtained when the market value per equity share is maximum and overall cost of capital is minimum. Determination of an optimum capital structure is a formidable task, because of which it is not possible to find out the exact debt-equity mix. However, a range can be determined on the basis of an empirical study. The Chief Financial Officer or the Board of Directors of a company should develop and design an appropriate capital structure that is most advantageous to the company. The capital structure so designed must safeguard the interests of the shareholders and other groups such as creditors, employees, customers, society and government. The management of a company may fix its capital structure near the top of the range in order to make maximum use of favourable leverage, subject to other requirements, such as flexibility, solvency, control and another norms set by the Securities Exchange Board of India (SEBI) and Stock Exchanges.
Debt as a percentage of equity of pharmaceutical companies decreased from 82.87 per cent in 1998-99 to 49.71 per cent in 2007-08. The average debt, total equity and debt as a percentage of equity stood at Rs.2,313.14 crore, Rs. 4,478.59 crore and 51.65 per cent respectively. The compound growth rate of debt, total equity and debt as a percentage of equity stood at 24.49 per cent, 30.74 per cent and - 4.40 per cent, respectively. The 't' value for growth in debt and equity is significant at the 5% level, where as debt as a percentage of equity is not significant at the 5 % level. This indicates that the debt component in total capital structure is very less in pharmaceutical companies.

The Profit before Tax (PBT) as percentage of capital employed fluctuates between 8.12 per cent and 18.54 per cent. The average PBT was 13.59 per cent during the entire study period (1998-2008). The percentage of PAT to capital employed increased from 8.58 per cent in 1998-99 to 15.37 per cent in 2006-07, but decreased to 11.31 per cent in 2007-08. The percentage of PBT and PAT to capital employed, during the entire period of study stood at 13.59 per cent and 11.63 per cent respectively. This indicates that the profitability of the pharmaceutical industry in South India slightly improved during the study period.

The interest as percentage of gross profit was high in the first year of the study. It decreased from 17.41 per cent in 1998-99 to 4.87 per cent in 2003-2004, but increased to 6.48 per cent in 2005-06. In 2007-08, the last year of the study, it stood at 3.05 per cent. The average interest as percentage of gross profit stood at 8.10 per cent during the entire period of study.

Interest as a percentage of total income decreased from 5.84 per cent in 1998-99 to 1.38 per cent in 2007-08. The average percentage of interest to total income stood at 3.27 per cent, while the percentage of interest to gross profit and total income declined gradually. The compound growth rate of interest, gross profit and total income stood at 6.07 per cent, 26.01 per cent and 22.42 per cent, respectively. The growth in
interest, gross profit and total income are significant at 5% level. Hence, it can be concluded that the payment of interest is not a burden to pharmaceutical companies and they can easily mobilize their earnings to pay for the interest charges.

8.4 EVALUATION OF SYSTEMATIC RISK

The objective of any investor is to maximize expected returns from his investments, subject to various constraints, including risk. The possibility of obtaining expected returns pushes an investor to undertake an investment. Risk and return go hand in hand in investments and finance. One cannot talk about returns without knowing mentioning risk, because, investment decisions always involve a trade-off between risk and return.

Risk can be defined as the chance that the actual outcome from an investment will differ from the expected outcome. It refers to the chance that some unfavorable event will happen. In other words, risk can be defined as the uncertainty that an investment will earn its expected rate of return. It can also be defined as the probability that actual returns may deviate from expected returns. The probability that the actual returns may be lower than expected returns gives rise to investment risk. Higher the probability of actual returns being less than expected, higher will be the investment risk.

The risk of investing in securities can be classified into systematic and unsystematic risk, based on its relationship with market return or diversifiability. Systematic risk, which is also known as market risk or undiversified risk, is associated with aggregate market (stock Exchange index, or BSE Sensex or NSE Nifty) returns. It is the proportion of total risk of security, which cannot reduce through diversification. In contrast, unsystematic risk is company- or industry-specific risk that is inherent in each investment. Unsystematic risk can be eradicated through appropriate diversification. The beta coefficient measures the market risk as a non-diversifiable risk of an asset, such as a stock, compared to the rest of the market. It also measures volatility of the asset
compared to the general market. The beta of a stock shows the relationship of the change in the price of a stock to the market. It is a measure of relative systematic risk, but the actual systematic risk of stock (share) 's' is $\beta_s^2 \sigma_m^2$ where $\beta_s^2$ stands to square of beta coefficient of stock 's' and $\sigma_m^2$ stands to market variance. A positive beta indicates that the stock is moving in the same direction as the general market. If the beta is greater than 1, it means the stock is moving more than the market does in the same direction. If the beta is zero, there is no market risk to the stock. Less than one beta coefficient indicates less volatility.

The study shows that out of the ten selected pharmaceutical companies, seven companies have less than one beta coefficient, while three companies have more than one beta. However, even for these three companies, beta coefficient is marginally higher than one. The proportion of systematic risk is more in Divi’s Laboratories Limited, followed by Biocon Ltd., and Orchid Chemicals & Pharmaceuticals Limited. Bal Pharma Limited has very less proportion of systematic risk with 0.02. This indicates the presence of less volatility in the returns in pharmaceutical stocks.

8.5 PERFORMANCE OF FIXED ASSETS

The decision to invest in fixed assets is usually termed as capital budgeting. It exclusively deals with major investment plans covering long-term projects and is concerned with the allocation of a firm’s scarce financial resources to these projects. An analysis of the overall position of the fixed assets investment in the select 10 companies indicates that the size of investment marginally improved during the study period. The average proportion of fixed assets to total assets stood at 37.67 per cent, which is less than 50% on consolidated basis. It was above 50 per cent only in Orchid Chemicals & Pharmaceuticals Limited. In the remaining nine companies, it was below 50 per cent. The analysis also shows that the size of fixed assets increased in all the companies, while allocations out of total funds to fixed assets decreased in six
companies out of the ten companies. Negative CGR was recorded in six companies and positive CGR was recorded in four companies. However, t-value was found to be significant in Dr. Reddy's laboratories Limited and Astrazeneca Pharma India Limited.

The analysis shows that the fixed assets turnover ratio during the period of study fluctuated in the companies under study. The average fixed assets turnover ratio is highest in the case of Astrazeneca Pharma India Ltd., at 5.95 times, followed by Aurobindo Pharma Ltd., at 3.30 times. The average fixed assets turnover ratio is the least in Orchid Chemicals & Pharmaceuticals Ltd., at 0.73 times. The consolidated average fixed assets turnover ratio is 1.86 times. It indicates that pharmaceutical companies underutilize fixed assets.

8.6 WORKING CAPITAL AND ITS IMPACT ON PROFITABILITY

The working capital is analyzed with the help of select ratios such as current ratio, quick ratio, inventory to current assets ratio, inventory turnover ratio and working capital turnover ratio. These ratios have been calculated for each of the ten select pharmaceutical companies.

8.6.1 Comparison of the Average of Net Working Capital

The average net working capital during the study period is very high in Dr. Reddy's laboratories Limited (Rs.1,239.69 crore), followed by Aurobindo Pharma Limited (Rs.796.84 crore) and Orchid Chemicals & Pharmaceuticals Limited (Rs.375.73 crore). Suven Life Sciences Ltd. has the lowest net working capital of Rs.24.71 crore. In all the select pharmaceutical companies, the average net working capital is positive. The net working capital of Bal Pharma Ltd., is Rs.25.03 crore, while that of Natco Pharma Limited is Rs.94.37 crore. The average net working capital during the ten-year study period was Rs.150.05 crore for Divi's Laboratories Limited, Rs.132.07 crore for Biocon Limited, Rs.136.35 crore for Matrix Laboratories Limited and Rs.65.40 crore for Astrazeneca Pharma India Limited.
8.6.2 Comparison of the Average of the Working Capital Ratios

In order to analyze the working capital utilization by the select pharmaceutical companies, the averages of ratios such as current ratio, quick ratio, inventory turnover ratio, inventory to current assets ratio and working capital turnover ratio for each of the pharmaceutical companies were calculated.

The current ratio for nine out of the ten select companies is more than the standard norm of 2:1. In case of Dr. Reddy's laboratories Limited and Aurobindo Pharma Limited, the current ratio was more than 4 times. Orchid Chemicals & Pharmaceuticals Limited, Bal Pharma Limited and Natco Pharma Limited had more the 3:1 current ratio. It was 1.83 for Matrix Laboratories Limited. For the remaining companies, it was more than the standard norm of 2:1. These ratios indicate that the select pharmaceutical companies maintain more current assets and that they have greater short-term solvency.

The average quick ratio is the highest (3.55) for Dr. Reddy's laboratories Limited and the lowest (0.92) for Matrix Laboratories Limited. The quick ratio of all the select companies, except Matrix Laboratories Limited, was more than the standard norm of 1:1 during the study period. This means, these nine companies have good liquidity and solvency position in terms of current and liquid ratio. The average quick ratio of Matrix Laboratories Limited was nearer to 1:1.

The average of inventory to current assets ratio of all the ten select pharmaceutical companies, except Divi's Laboratories Limited (0.52) and Matrix Laboratories Limited (0.51), was below the standard norm of 0.5. The respective ratios are 0.49 (Orchid Chemicals & Pharmaceuticals Limited), 0.47 (Bal Pharma Ltd.), 0.37 (Suven Life Sciences Limited), 0.29 (Biocon Limited and Aurobindo Pharma Limited), 0.27 (Natco Pharma Limited), 0.26 (Astrazeneca Pharma India Limited), and 0.20 (Dr. Reddy's laboratories Limited).
The inventory turnover ratio indicates the number of times the inventory of a company rotates within an accounting cycle. The standard norm of this ratio is 5 times. The average inventory turnover ratio of all the select pharmaceutical companies is below the standard norm. The Inventory Turnover Ratio is the highest (3.86) for Aurobindo Pharma Limited, followed by Biocon Limited (3.55), Astrazeneca Pharma India Limited (3.16), Suven Life Sciences Limited (2.44), Matrix Laboratories Limited (2.39), Dr. Reddy's laboratories Limited (2.33), Natco Pharma Limited (2.13), Divi's Laboratories Limited (1.88), and Bal Pharma Limited (1.64). It is the lowest (1.43) for Orchid Chemicals & Pharmaceuticals Limited.

Biocon Limited had the highest working capital turnover ratio of 4.63 times, which indicates that the company has efficiently utilized its working capital. It is followed by Matrix Laboratories Limited, Divi's Laboratories Limited, Astrazeneca Pharma India Limited, Suven Life Sciences Limited, Aurobindo Pharma Limited, Bal Pharma Limited, Orchid Chemicals & Pharmaceuticals Limited and Dr. Reddy's laboratories Limited. The ratio was the lowest for Natco Pharma Limited at 1.45 times. These figures indicate that the average working capital turnover ratio for all the pharmaceutical companies is below the standard norm of 5 times.

### 8.6.3 Impact of Working Capital Performance on Profitability

This study has made an attempt to examine the impact of working capital performance on profitability, which is measured in terms of ratio of net profit to sales. The relationship between net profit ratio and working capital ratios, namely, Current Ratio (CR), Quick Ratio (QR), Inventory Turnover Ratio (ITR), Inventory to Current Assets Ratio (ITCA) and Working Capital Turnover Ratio (WCTR), has been studied by using the multiple regression model. An observation of the correlation matrix found that some of these five ratios are inter-correlated, leading to multicollinearity. After removing QR and ITCA, which are highly correlated with others, the behaviour of Net Profit Ratio (NPR) in terms of CR, ITR, and WCTR is explained with the help of following equation:
\[ Y = \beta_0 + \beta_1 \text{(CR)} + \beta_2 \text{(ITR)} + \beta_3 \text{(WCTR)} \]

The analysis was carried out with the help of SPSS. The multiple regression model reveals that in the case of Dr. Reddy's Laboratories Ltd., Suven Life Sciences Limited, and Natco Pharma Ltd., the regression model are indicated by high \( R^2 \) value and significant 'F' value. So the profitability of these companies is significantly influenced by working capital ratios. On the other hand, in the case of other companies, there is an apparent relationship but not statistically significant. A further study using stepwise regression has been carried out to select the most influencing variables out of the three ratios. The stepwise regression model reveals that either ITR or CR is an influencing factor in determining NPR in three pharmaceutical companies out of ten samples.

8.7 ANALYSIS OF FINANCIAL PERFORMANCE

Market Value Added (MVA) is the difference between a company's current market value and its economic book value. Economic value of the company is the amount of capital that shareholders have committed to the firm throughout its existence, including earnings that have been retained in the business. MVA is the best external performance measure of a company as it assesses the effectiveness with which the company's managers have used the scarce resources available. MVA is calculated to study the performance of a company and level of value added to the shareholders' wealth. If MVA is positive, it implies that the company has added value to the shareholders' wealth. If MVA is negative, it indicates that the company has destroyed the shareholders' wealth. In this study, MVA has been taken as a dependent variable, while return on average net worth, capital productivity, labour productivity, earnings per share, economic value added, return on sales, return on total assets and cash profit selected as independent variables.
The MVA and the eight independent variables were calculated for all the pharmaceutical companies. The MVA was found to be positive in the case of all the companies, except for Dr. Reddy's laboratories Limited and Suven Life Sciences Limited. This indicates that the performance of all pharmaceutical companies, except the two companies, is good.

The fixed assets to long-term funds ratio indicates the extent to which fixed assets are financed out of long-term funds. It is well established that fixed assets should be financed only out of long-term funds. This ratio works out the proportion of investment of funds from the point of view of long-term financial soundness. This ratio should be equal or less than one. If the ratio is more than one, it means the firm has adopted the impudent policy of using short-term funds for acquiring fixed assets. On the other hand, a very low ratio would indicate that long term-term funds are being used for short-term purposes, i.e., for financing working capital. The study found that the fixed assets to long-term funds ratio is the highest in the case of Orchid Chemicals & Pharmaceuticals Limited, followed by Divi's Laboratories Limited and Suven Life Sciences Ltd. Dr. Reddy's laboratories Limited had the lowest fixed assets to long-term funds ratio of 0.28 times. The average consolidated ratio was 0.46 times during period of study.

PART-B: SUGGESTIONS

I. Based on the above calculations and analyses, the following suggestions are made for improving the financial performance of the pharmaceutical companies under study.

i. Need for increasing the debt capital

The debt as percentage to the total capital of all the select pharmaceutical companies for the entire study period stood at 35.51 per cent (See Table 3.3), which means, the companies utilized less debt capital. This indicates that the pharmaceutical industry is not an interest-rate sensitive industry. This explains why the fluctuations in
the interest rates are not affecting the industry's profits. However, the cost of debt financing is cheaper than equity finance. Thus, in order to increase the equity shareholders’ wealth, the pharmaceutical companies have to raise debt capital.

The pharmaceutical companies retained more earnings to generate internal financial resources. The reserves and surpluses as average percentage to the total capital for the entire period of study stood at 60.77 per cent (See Table 3.3). As the equity shareholders forgo the current dividend income for the future profits, the pharmaceutical companies have to grow substantially in the future. If the companies fail to perform well, the equity shareholders may not participate in further capital contribution for expansion of the business.

ii. Need for maintaining balanced capital structure

Continuous fall in debt capital and excessive dependence on retained earnings leads to an imbalanced capital structure of the industry. The present debt-equity ratio of ten select companies is 0.58:1. The pharmaceutical companies can raise debt funds through the External Commercial Borrowing (ECB) route or from domestic financial institutions at concessional interest rates also. Hence, to maximize market value of equity, these companies will have to go for debt capital issue. The pharmaceutical industry accounts for about only 1.61 per cent of total FDI flow into the country. Hence, in order to raise more funds, the pharmaceutical companies under study have to issue ADRs or GDRs in the international capital markets.

iii. The beta coefficient is more than one and the proportion of systematic risk is also very low in some of the pharmaceutical companies (see Table 4.2). It is not good to believe the investment in pharmaceutical industry is defensive in nature. Hence to build a portfolio, the potential investor has to consider the other factors like the level of EPS, Cash profit margins, the companies allocations to the R&D, and the international presence of the company, etc.
iv. A comparison of the levels of working capital of the select ten pharmaceutical companies, found that the average net working capital during the study period was very high in Dr. Reddy's laboratories Limited, followed by Aurobindo Pharma Limited and Orchid Chemicals & Pharmaceuticals Limited. Therefore, the companies working with a low level of net working capital should improve these levels by seeking financing from long-term sources that have low financial risk. The average current ratio for all the pharmaceutical companies is very high, especially, in the case of Dr. Reddy's laboratories Limited, Aurobindo Pharma Limited, Orchid Chemicals & Pharmaceuticals Limited, Bal Pharma Limited and Natco Pharma Limited (more than 3:1). In order to maintain optimum liquidity, these companies have to reduce the level of current assets or increase current liabilities. The allocations to fixed assets out of long-term funds stands at 0.46, which means the pharmaceutical companies allocate 54% of long-term funds to finance current assets. Hence, it is better to finance current assets with bank overdraft or other current liabilities and allocate more funds to build infrastructure (fixed assets).

v. The average quick ratio of all the select companies, except one, was more than the standard norm of 1:1. Hence, it is better to adopt sufficient cash management techniques to achieve optimum utilization of liquid assets. The average of inventory to current assets ratio for all the select pharmaceutical companies, except Divi’s Laboratories Limited and Matrix Laboratories Limited, was below the standard norm of 0.5. Therefore, these companies should maintain appropriate amounts of inventories to avoid production obstacles due to lack of raw materials and supply demand gaps.

vi. The average inventory turnover ratio of all select pharmaceutical companies was below the standard norm of 5 times, reflecting ineffective utilization of inventory by these companies. Since profitability is determined based on the rate of utilization of inventory, the companies, whose average inventory turnover ratio is less than the standard norm, should pay attention to improving this ratio. The average working capital turnover ratio is also less than 5 times for all the pharmaceutical companies. High working capital turnover ratio confirms the excellent performance of a company and has
a positive influence on operational profitability. Therefore, the companies, whose average working capital turnover ratio is less than the standard norm, should achieve more working capital turnover by strengthening the sales and maintaining adequate amounts of current assets and current liabilities.

vii. Capital productivity is less than one in eight out of ten sample companies. It is not a good sign. Hence, the pharmaceutical companies must allocate capital in successful manner to magnify the shareholders wealth. The labour productivity is range between 3.98 to 12.81. It is observed that out of ten sample companies, the capita productivity is more and labour productivity is very low in Astrazeneca Pharma India Ltd. So, the pharmaceutical companies have to improve the labour productivity. The management has to analyze the working conditions of employees and encourage the employees to build professional knowledge through proper training and development.

viii. In three out of ten select pharmaceutical companies, it is found that Economic Value added (EVA) is negative. It means that these companies failed to meet the investors’ expectations (return on investment is lower than WACC). It is not good sign to further mobilization of capital. It is also found that Return on Sales and Cash Profits are very low in these companies. Hence, it is suggested that these companies have to enhance the profitability by increasing the productivity.

II. The following are several other suggestions which touch the fringes of financial aspects of select pharmaceutical companies in South India.

a. Infrastructural Support

As in the case of other industries, the current economic slowdown seems to be affecting, the pharmaceutical industry as well; the industry is expected to remain affected over the next few quarters. It could suffer from reduced inventories and face distribution challenges. Since pressure on liquidity has forced people to go slow on projects, the pharmaceutical companies must be assured of continuous supply of raw
materials at reasonable rates applicable over a reasonable period of time. To tide over the recession, companies will have to revisit their strategies and evaluate their effectiveness. They should also continue to focus on providing primary care, given the opportunities that exist in branded generics and bio-similars.

b. **Fiscal and Financial Support**

Modernization and renovation plans could be executed with the help of soft loans. The government could grant interest-free, sales tax loans or consider giving a five-year tax holiday for new units. Exempting customs duty on imported equipment could substantially reduce capital cost. The government could also provide tax incentives in the form of various admissible deductions for the purpose of direct tax computation.

c. **Technological Support**

The survival of the Indian pharmaceutical industry depends on research, development and upgradation of technology. Hence, it is essential that:

i. **Technology** is updated for high yield conversion and efficient usage of inputs such as raw materials and energy.

ii. Adequate attention should be paid to environmental requirements.

iii. Both the Central and State Governments have to recognize the importance of research and development in the pharma sector and provide more funds and tax concessions.

iv. The Government of India has to provide export incentives to pharma companies and allows Special Economic Zones (SEZs).

v. Pharmaceutical companies have access to a highly-developed IT industry.
To conclude, the profitability of the Indian pharmaceutical industry cannot be improved unless interlinked problems such as modernization, cost reduction, controls and taxes are solved. Since pharmaceutical companies play an important role in building human capital of a nation, the Government of India should extend complete financial support to the pharmaceutical industry and adopt appropriate policy measures for its development.