



**FINANCIAL APPRAISAL OF SELECTED  
MEDIUM AND LARGE SIZE MULTINATIONAL DRUGS  
AND PHARMACEUTICAL COMPANIES IN MUMBAI**

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**AN ABSTRACT OF THE THESIS ON FINANCIAL APPRAISAL OF SELECTED  
MEDIUM AND LARGE SIZE MULTINATIONAL DRUGS AND  
PHARMACEUTICAL COMPANIES IN MUMBAI**

**BACKGROUND OF STUDY:**

The origin of modern global pharmaceutical industry has its roots in the 16<sup>th</sup> century when the increasing complexity and variety of drugs and chemicals and the attendant skills required for their production resulted in the establishment of specialist apothecaries and chemists as dominant manufacturers and distributors of drugs. The famous apothecary of F.J.Merck started manufacturing drugs in 1618 under the new name of Merck, Sharpe & Dohme. In the next two centuries many of these chemists and druggists developed into wholesalers and afterwards started their own manufacturing operations. Chemical industry also played an important role in the development of pharmaceutical industry. The medical science and its modern Allopathic therapy made big strides during the therapeutic revolution period (1900-1950) and simultaneously boosted the rapid growth of pharmaceutical industry. World War-II gave a fillip to the pharmaceutical industry when penicillin was used on a large scale. Penicillin proved to be a great boon to heal the wounds of millions of soldiers. Many other great discoveries followed the introduction of sulpham drugs and penicillin. Waksman invented streptomycin in 1943, which was effective against tuberculosis (T B). Chloramphenicol and Neomycin were discovered in 1949, Oxytetracycline in 1950, Reserpine in 1952 and Tetracycline in 1953 were the other new drugs, which flooded the world market boosted by effects of Second World War. After 1950, pharmaceutical research and development (R&D) was centered around mental, heart and cardiovascular diseases. In 1960's

Swiss drugs companies introduced Librium and Valium, famous tranquilizers still dominating the world market. In 1965 Americans added Nardil and Parnate. In the last three decades many other important drugs like- Anti depressants, Diuretics, Corticosteroids, oral contraceptives and antihistamines were discovered, developed and produced by drug companies to alleviate human ailments.

In the beginning of the 19th century the edifice of pharmaceutical industry was completely different from its current position as a multinational industry. The drug companies of that era were hesitant to occupy it in therapeutic research. Due to the absence of major R&D activities the pace of launching new drugs was very slow. The revolution in the procedures of treatment during 1930-50 changed the structure of pharmaceutical industry. The major break-through in medical therapy forced the big drug firms to specialize their functioning in certain areas instead of manufacturing full-line commodity items. The pharmaceutical industry and its business was forced to become R&D and advertising intensive. The discovery of chemotherapy and its subsequent growth attracted worldwide attention and created great hopes for the suffering humanity. The sick and wounded soldiers fighting in the world wars also required effective drugs to heal and cure them. These factors were responsible for pushing the industry in the world market. The pharmaceutical industry moved into the world market due to a combination of the universality of need and usage of ethical drugs, the economic necessity of amortizing heavy research investment as widely as possible and the lack of any one country's monopoly on inventions. The doorway of pharmaceutical companies into the world market accompanied high rate of earnings. But it drastically changed the structure and internal organisation of the companies. Full line commodity firms were required to change themselves into specialised firms with vertically integrated operations and

combining research, production and marketing functions into an integrated company. The new type of internal organisation not only gave economy of scale, division of labour and brand loyalty but also the operational strength at the world level. The global pharmaceutical industry is presently dominated by around 100 multinational companies. Of these, leading 25 multinational companies account for around 50% of the total market share.

Multinational drug and pharmaceutical companies have been dominating the Indian pharmaceutical industry since their inception in India and have gained importance after 1990-91. Almost all-important nations with their well-developed pharmaceutical industry have contributed in one form or other in the massive development of this industry in India. Thus today we have pharmaceutical units with American, British, Swiss, German, French, Dutch, and Italian collaboration. This is because medicines and diseases know no national boundaries in character.<sup>15</sup>

The real beginning of the modern pharmaceutical industry in India can be traced only after Independence, though its foundation was already laid down early in 1901 by Acharya P.C.Ray with the establishment of the Bengal Chemical & Pharmaceutical Works, Calcutta. At the time of Independence 28 multinational drugs and pharmaceutical companies comprised a quarter of the total investment and 38 % of sales. Shortly after India became independent, most of the leading multinational drugs companies established themselves as trading concerns. The first industrial policy and statement on foreign capital declared by the then Prime Minister Pt Jawaharlal Nehru in the Parliament on April 8, 1948 was instrumental in inviting multinational pharmaceutical companies of Britain, America, West Germany and Switzerland. The salient features of the policy statement on foreign capital provided liberal remittance facilities for profits, dividend, royalty, technical fees and

non-discriminatory treatment for multinational companies. This congenial atmosphere provided excellent opportunities for these multinational pharmaceutical companies to establish themselves as trading concerns with meagre investment. During a short span in the first 4 years of Independence (1947-50), 19 multinational drug companies started their business in India. Their trading activities were confined to importing the finished drug formulations from their parent companies and market them. When the demand for the drugs increased rapidly they took further steps and started to import the formulations in bulk and then packaging it in India. Later on the Government of India persuaded these foreign companies to further their indigenous activities. During the first three Five Year Plans, The Government of India gave every facility to foreign firms to expand their business as fast as possible

The multinational drug companies were now importing the bulk drugs and getting them processed into formulations on "job-work" basis by Indian companies. For all these activities the foreign companies were not required to invest large amounts in factories, employment and R & D, instead they were earning fabulous profits with multiple growth in their assets and reserves

Meanwhile the Indian public sector also came into picture and started their production with the support and collaboration of U.S S R , H A L., at Pimpri in 1955 and IDPL in 1968. The entry of public sector in the production of these essential drugs provided new thrust and strength to Indian Pharmaceutical Companies in the private sector. The Indian sector of the industry, which mostly comprised of companies from Maharashtra, Gujarat and West Bengal at that time, was developing rapidly to compete with the foreign sector But the Indian sector could not find much time to develop and sooner it had to face heavy onslaught from

the foreign drug companies through their "high pressure sales promotion technique". History of pharmaceutical industry in India clearly reveals that " more than resources and products, it was the management policy, the high streamlined recruitment and training procedures for medical detailers, the area of super expertise that was created, the technique employed by foreign companies to persuade doctor to prescribe their drugs and meticulous cost and economic studies of all operations carried out by them beat the Indian companies completely and left them for being in the race".

Thus the multinational pharmaceutical companies attained a position of dominance in the drug industry. From a base of Rs. 10 crores of turnover in 1947, the industry had grown to Rs. 370 crores in 1973. This high growth industry was controlled for all practical purposes, by foreigners and the structure of control on production and capital was again pyramidal. In 1973 sixty-six multinational companies controlled 80% of the total production and their annual repatriation of profits was more than 50% of their initial investment

In 1970's and 1980's, due to the growth of the domestic pharmaceutical companies, the dominance of multinational firms declined. Multinational firms felt stifled by the combined weight of the Monopolies & Restrictive Trade Practices Act and the Foreign Exchange Regulation Act. Protectionist policy introduced by the Indian government in 1970 hit profits hard and the multinational pharmaceutical companies were further deterred by the lack of intellectual property. In spite of all this they found India attractive because of its large size market, and relatively larger demand for drugs, milder drug control measures and the absence of local competition. In addition, the government's policy of industrialization by way of import substitution, especially from the second plan onwards, provided a sellers

market protected by high tariff walls and other import restrictions. Because of the heterogeneous nature of the industry, multinationals could dominate specific market niches through extensive promotion and established brand names.

In 1990-91, a new economic policy laid many policy changes, which allowed multinational companies to increase their foreign equity from 40% to 51%. The Foreign Exchange Regulation Act of 1973 was amended and restrictions placed on foreign companies and multinational enterprises by FERA were lifted. The MRTP Act being amended, custom duties and corporate taxes being lowered, relief concessions and facilities were extended to the multinational companies as well as to the Indian companies. These steps towards globalisation favoured the multinational pharmaceutical companies while having an adverse effect on the indigenous drug industry.

The present scenario is that the multinational drugs and pharmaceutical companies in India are still leading due to backing of their global Research and Development. High cost for basic research deterred local players in the private sector.

Today in the anticipation of the WTO, (World Trade Organisation) agreement multinational drugs and pharmaceutical companies are strengthening their ranks in India - either by setting up new 100% subsidiaries or marketing tie-ups with major domestic players. Until recently India has so far has recognised patents only on processes. But with the implementation of WTO agreement, the product patent regime will be put into practice beginning from 1<sup>st</sup> January 2005. As per WTO, from the year 2005 India will grant product patent recognition to all new chemical entities i.e. bulk drugs developed then onwards. This leaves few more years of Multinational Company's research output open to process piracy. But the long-term

prospects for multinational companies are good. The transition phase in the preparation of WTO has commenced. The multinational pharmaceutical companies have started strengthening their position. Most companies have already restructured their operations and focused on the pharma business. Parent companies are re-assessing India's market potential and have accordingly increased their stakes in the existing ventures and set up new subsidiaries. In the post product patent era the growth of multinational companies could be significantly different. They will be able to freely introduce top of the line, new products i.e. those patented after 2005 in the domestic market. However, these are expected to be priced at a significant premium in line with the multinational companies global policy of earning return on their R& D investment. Thus new launches by multinational pharmaceutical companies will be high margin but low volume products and will be mostly imported from overseas bases and only marketed in India. Multinational companies, which do not have a base in India, will enter into tie-ups with local player to license their new products. Local players in India will continue to make and market in India the popular generic and also those pre-WTO products, which may still be under, patent overseas. They will take up franchise manufacturing and marketing for overseas multinational companies. Local player may also enter into research tie-ups with multinational companies to leverage on their relatively low-cost, efficient skill base of trained pharmacist and chemists

## **RATIONALE OF THE STUDY:**

Management of a business concerns is interested in every aspect of financial management. It is their overall responsibility to see that the resources of the firm are used most effectively and efficiently and that the firm's financial condition is sound. The effective and efficient utilisation of the funds leads to higher

operating efficiency. A higher operating efficiency will help the concern to earn an expected higher rate of returns. Similarly, if the firm is financially solvent, it will be in a position to meet its short term and long-term obligations as and when they become due for payment. A lower operating efficiency and financial insolvency will not only lead to decline in the profit but also to an ultimate downfall of the business concern. Thus efficient use of the funds will assist in cost savings and in maximising financial return on the total capital employed. The operating efficiency and solvency of the business can be judged by the management only through the appraisal of data contained in the financial statements. The purpose of financial appraisal is a detailed cause and effect study of the profitability and financial health of a business concern. The rationale of the study is emphasised by the fact that the appraisal of the financial statements is important to examine the financial health of a business enterprise. To improve the financial health, each business concern should have a periodical appraisal of its financial results. This will enable the management to measure the effectiveness of its own policies and will help them to take corrective actions to improve the business position. If financial appraisal is not initiated, the management may not be in a position to analyse the performance of business. Sometimes it may lead to close down of the business activities. Thus an in-depth understanding of the importance of financial appraisal helps management to take steps towards improving its performance in adverse conditions.

A number of research studies have been undertaken by many researchers on different industries including pharmaceutical industries highlighting different facets of financial management. The studies carried on by them includes, study on transferability of management know-how developed by Multinational pharmaceutical companies to their subsidiaries in India, working capital

management, on the structure, growth and working of multinationals in India, analysis of the pricing policies amongst multinational and wholly owned Indian drug companies, analysis of the various functional policies adopted by the multinational drugs companies in India, etc. However some research studies on multinational companies have included pharmaceutical companies as a part of a much larger sample involving companies from many industrial sectors.

From the above studies and the studies in the chapter of Review of literature, it is apparent that specific research studies exclusively on the performance of multinational drugs and pharmaceutical are scanty. The financial appraisal of multinational pharma companies is altogether an ignored area of research. Not a single doctoral study concerning financial appraisal has been undertaken in depth though number of small studies have been carried out on various aspects of financial management. Keeping this in view and the remarkable performance of multinational drugs and pharma companies, a modest attempt is made to appraise the financial performance of Medium and Large size multinational drugs and pharmaceutical companies in Mumbai.

### **STATEMENT OF PROBLEM:**

The present study is titled "Financial Appraisal of Selected Medium and Large Size Multinational Drug and Pharmaceutical Companies in Mumbai."

With a view to have conceptual clarification, it is essential to define important terms used in the proposed study.

The term ' Financial Appraisal ' refers to a process of scientifically making a proper and comparative evaluation of the profitability and financial health of medium and large size multinational drugs and pharmaceutical companies in Mumbai

The term 'Multinational Drugs and Pharmaceutical Companies ' refers to Indian subsidiaries of multinational drugs and pharmaceutical companies.

The medium and large size refers to those selected multinational drugs and pharmaceutical company with a paid up capital of Rs 1 crore and above.

The drugs and pharmaceutical companies refer to those companies of whose the main activity is manufacturing drugs and pharmaceuticals and those having more than 50% production of allopathic medicines. Companies engaged solely in trading, producing exclusively ayurvedic, homeopathic and unani medicines are excluded. Moreover their registered Offices are located at Mumbai and are listed on Bombay stock exchange.

The term bulk drugs refer to the basic drugs used in manufacturing ethical drugs over the counter drugs. Ethical drugs are drugs advertised and promoted mainly to physicians, pharmacists and allied professionals usually requiring a doctor's prescription. Formulations refer to combinations of drugs in finished form for final consumption of the patient.

Mumbai refers to the place and city where 76% of the total multinational drugs and pharmaceutical companies in India are located.

## **OBJECTIVES OF THE STUDY:**

The main objective of the study is to appraise financial performance of the selected medium and large multinational drugs and pharmaceutical companies in Mumbai. For this purpose, the profit and loss account and balance sheet of selected companies had been analysed for the period between 1990-91 and 1999-2000

The main objectives of the study are as follows

1. To appraise the financial performance of selected medium and large multinational drugs and pharmaceutical companies in Mumbai
2. To evaluate the profitability position and operating efficiency.
3. To assess the capital structure and examine its relationship with profitability
4. To appraise effectiveness of Working Capital Management.
5. To analyse the investment pattern and utilisation of fixed assets.
- 6 To examine the components of sources of funds and its prolific utilisation
7. To suggest measures to improve financial performance of selected multinational drug and pharmaceutical companies in Mumbai.

#### **LIMITATIONS OF STUDY:**

**Following are certain limitations of the present study:**

1. The scope of the study is limited only to the appraisal of profitability, liquidity, working capital management, long term financial strength, capital structure and appraisal of funds position of selected sample companies. It excludes probing into other financial problems such as capital budgeting, impact of economic and political environment of the pharmaceutical industry, impact of government policies etc
- 2 The study is based on secondary data collected from the annual audited balance sheets, profit and loss account, directors and auditors report of the multinational drugs and pharmaceutical companies. The other data used for comparing the results of pharmaceutical companies are taken from various journals and periodicals. So the inherent limitations common to secondary data and to the company's financial statements are self

evident in this study. The limitations of the secondary data along with the limitations of the financial statements for the purpose of analysis are well known. Despite these limitations, financial statements continue to be a major source of data for analysing of the company's performance.

3. The limitations of the small sample are also applied here, as the size of the sample is restricted. In the present study, out of 22 multinational drugs and pharmaceutical companies having their registered office in Mumbai on or before 1990-91, only 11 of them are selected on the basis of judgement sampling method. The rest of the companies are not included in the sample companies either due to non-availability of data or on account of their being small or because they produce allopathic drugs and pharmaceuticals less than 50% of the total production.
4. The inherent limitations of the financial and statistical techniques used for analysis could not be avoided.
5. The accounting year is not same for all the sample companies as a result of which uniform financial statements could not be obtained. Out of 11 sample companies covered in this study, 6 of them followed financial year, 4 followed calendar year and 1 followed November ending as their accounting year. Thus, in order to facilitate the analysis, the data has been arranged in a manner that it pertains to the accounts closed during the twelve months ending on 31<sup>st</sup> March of the concerned year.
6. The companies are grouped according to their main activity, hence combined data for a particular company would include figures related to the subsidiary activities. Studies related to sample companies are, however, bound to suffer from this sort of limitation irrespective of the source of data.

7 As multinational companies in pharmaceutical industry operate world wide, it is very difficult to compute the volume of profit charged through transfer pricing

The present research has been undertaken considering all the above listed limitations Thus one should carefully and judiciously use the findings of the study.

### **CONSTITUTION OF THE SAMPLE:**

It is a highly impossible task to include the entire sample for the purpose of any study. Since the aim of the study is an in-depth analysis of financial appraisal of multinational drugs and pharmaceutical companies, a group of 11 medium and large size multinational drugs and pharmaceutical companies with their registered offices in Mumbai and those which are listed on Bombay Stock Exchange have been selected on the basis of judgment sampling method. As majority of the multinational drugs and pharmaceutical companies operating in India are located in Mumbai, it was felt appropriate to select the sample from Mumbai, as it is most representative one.

For selecting the sample, the list of companies in the pharmaceutical industry was drawn from "PROWESS" database of CMIE. According to this, there are 29 multinational drugs and pharmaceutical companies all over India with their main activity as drugs and pharmaceuticals. Out of this, 22 companies i.e. 76% are having their registered offices in Mumbai. From this, 11 medium and large multinational drugs and pharmaceutical companies have been selected on the basis of judgment sampling method for a period of ten years from 1990-91 to 1999-00 This sample works out to 50% of the total number of multinational drugs and pharmaceutical companies registered in Mumbai On the basis of paid up capital and sales, the sample companies account for approximately 68.97% and 87.86%

respectively. Considering these factors, the size of the sample companies seem to be representative for drawing inferences, which could be applied, to a large extent to all the multinational drugs and pharmaceutical companies operating in India. The study excluded all those companies engaged solely in trading and producing exclusively ayurvedic, homeopathic and unani medicines. Other companies producing allopathic drugs and pharmaceutical medicines, which have less than 50% of the total production, have also been excluded.

For the purpose of study, only medium and large size multinational drugs and pharmaceutical companies having paid up capital of more than Rs. 1 crore in the year 1990-91 have been selected. The rationale for selecting such companies is that it constitutes a major share of the total paid up capital of all the multinational pharmaceutical companies during that year. Hence a study of small group of companies controlling a major share is judged to be a good representative sample for the whole sector and therefore form part of the present study.

### **SOURCES OF DATA AND THEIR COLLECTION:**

The study is based on the analysis of secondary data from the annual balance sheets, profit and loss account and audit reports of eleven multinational drugs and pharmaceutical companies in Mumbai. The data is collected by personal visits and through correspondence with the registered offices of the respective sample companies. The other relevant data, which is not available in the published annual reports and accounts of the sample companies, have been obtained from the Bombay Stock Exchange Official Directory and Kothari's Industrial Directory of India. The secondary data related to the overall growth and development of pharmaceutical industry in India is collected from the annual reports of Organisation of Pharmaceutical Producers of India, Indian Drugs Manufacturing Association

Bulletins, Drugs and Pharmaceutical Industry Highlights, Eastern Pharmacist, and The Pharmaceutical Guide.

The statistics related the financial position of 'Pharmaceutical Industry in India' and 'All Industries in India' have been gathered mainly from the Reserve Bank of India Bulletin published by the Reserve Bank of India and CMIE. Other publications and magazines used for the purpose of comparison are viz., Chartered Secretary, Economic Times, Economic and Political Weekly, Abhigyan, Indian Management, The Chartered Accountant, The Management Accountant, The Journal of Finance, Finance India, Financial Analyst, The Indian Journal of Commerce, Company News and Notes, The Indian Journal of Finance and Research, Journal of Corporate Finance, The Indian-Economic journal, and The Journal of Accounting and Finance.

## **METHODS OF ANALYSIS AND STATISTICAL TECHNIQUES USED**

The present study is an attempt to appraise the overall financial performance of the selected sample companies. The approach adopted is basically investigative and interpretive in nature. Before deducing on the methods of analysis for the present study, relevant literature on research methodology and research studies related to various facets of financial management were reviewed (as mentioned in Chapter II). On the basis of the review and the objective of study, the data collected from the financial statement of the companies are analysed with the help of different accounting and statistical tools. The accounting techniques like ratio analysis, common size statement analysis, comparative statement analysis, trend analysis and funds flow analysis have been used for the financial appraisal of medium and large multinational drugs and pharmaceutical companies in Mumbai. Statistical measures like measures of central tendency (average), co-efficient

variation, co-efficient of correlation, regression analysis, index number, chi-square test, 't' test, and time series analysis (least square method) have also been applied. Moreover diagrammatic and graphic representation of data has been made

### **TECHNIQUE OF ANALYSIS:**

In the analysis, a comparative study of the relative position of different facets of financial appraisal for the period 1990-91 to 1999-00 has been made with the quinquennial average and decennial average of each of the ratios used. The following are the techniques of analysis employed.

1. Decennial average percentage of each of the profitability ratio has been compared with the data of ' Pharmaceutical Industries in India' and ' All industries in India'.
2. Decennial average percentage of each of the capital structure ratios has been compared with the data ' Pharmaceutical Industries in India' and ' All industries in India'
3. Decennial average percentage of each of the working capital ratios has been compared with the data ' Pharmaceutical Industries in India' and ' All industries in India'
4. Decennial average percentage of each of the fixed assets appraisal ratios has been compared with the data ' Pharmaceutical Industries in India' and ' All industries in India'
5. Moreover decennial average percentage of various sources and uses of funds, different sources of financing working capital requirements such as short term bank borrowings, funds from operation and long term funds are examined individually

## MAJOR FINDINGS:

### PROFITABILITY:

1. The important profitability ratio in relation to sales is the gross profit margin ratio. It shows the average mark-up obtained on the products sold by a concern. The overall average gross profit margin ratio of the sample companies was 22.68%. It was higher compared to the average ratio of "Pharmaceutical Industry in India" at 21.98% and "All Industries in India" at 16.83%. This indicates that the efficiency of the managements of the sample companies to generate gross profit per rupee of sales was satisfactory. The lower co-efficient of variation of 18.02% indicates that gross profit margin was stable, reliable and consistent source of funds from trading operations during the entire period of study. The higher co-efficient of correlation of +0.99 reveals a perfect positive correlation between sales and gross profit. This indicates that increase in sales led to increase in gross profit in almost the same proportion. This relationship was also significant when statistically tested at 5% level of significance.
2. The net profit margin, is the widely used ratio to analyse the overall profitability of the business. It indicates what proportion of sales remains for the owners after deducting all costs, interest charges and other expenses. The net profit margin of the sample companies registered an overall increasing trend during the entire period of study and was on an average 6.02%. It was quite satisfactory in comparison to the average ratio of "Pharmaceutical Industries in India" at 4.27% and "All industries In India" at 2.85%. This showed the management's efficiency in producing and selling goods. When profitability is measured on the basis of sales, non-operating

income and non-operating expenses should also be kept in view. It is very interesting to note here that there is always a surplus of non-operating income over non-operating expenses. Added to this is the declining interest burden throughout the period of study, which is also responsible for the inclining net profit margin. The lower co-efficient of variation of 36.80% indicates consistency in earning net profit among all the sample units. The co-efficient of correlation of +0.88 indicates high degree of co-efficient of correlation between sales and net profit. This relationship was also significant at 5% level of significance.

3. The quinquennial average of gross profit margin and net profit margin was found to be higher during the second half i.e. 1995-96 to 1999-00 as compared to first half i.e. 1990-91 to 1994-95. The higher profitability during the second half was due to the favourable effect of DPCO 1995 whereby many bulk drugs were excluded from the purview of government control. The revised DPCO 1995 now controls only 76 drugs instead of 139 drugs, which it controlled earlier. This allowed the managements of sample companies to sell the products at a higher margin, which helped them to earn higher returns. This gave a freehand to the pharmaceutical companies to fix the prices of the drugs on their own and as a result high degree of profitability could be observed.
4. Operating ratio is the most general measure of operating efficiency and is important for management in judging its operations. The overall average operating ratio of the sample companies was 91.46%. The ratio shows an overall decreasing trend during the entire period of study. The overall increasing trend of gross profit margin and decreasing trend of operating ratio indicates efficiency of the management in controlling the operating cost.

5. The efficiency with which the operating assets of the company have been managed and utilised to generate sales can be appraised with the help of assets turnover ratio. The overall average assets turnover ratio of the sample companies was 1.67 times. It was higher in comparison to the average ratio of "Pharmaceutical industry in India" at 1.04 times and "All industries in India" at 0.90 times. This reveals that the managements of sample companies utilised the assets productively and efficiently to generate the higher volume of sales and thereby increase the overall profitability.
6. To assess the profitability of all financial resources invested in the assets of the business return on total assets ratio has been calculated. The rate of return on total assets shows an overall increasing trend during the entire period of study and was on an average 19.46%. It was quite high in comparison to that of "Pharmaceutical Industry in India" at 11.89% and "All industries in India" at 9.09%. Thus, it can be inferred that the operating profit earned by the sample companies justified the size of investment made in total assets.
7. The return on capital employed indicates the efficiency with which the management has effectively used the funds provided by owners and long-term creditors. It shows the earning power of the assets in which the funds are blocked. The overall average rate of return on capital employed of the sample companies was 31.50%. This indicates that the managements of the sample companies could utilise the funds provided by the owners and creditors in a profitable manner. It can thus be concluded that the efficiency of the management to generate return per rupee of capital invested was highly satisfactory.

8. The earnings of a satisfactory return is one of the most desirable objectives of a business and return on equity indicates the extent to which this objective has been successfully achieved. It is a functional tool to gauge earnings from the owner's point of view. The overall average rate of return on equity of 20.17% indicates that higher returns were available to owners during the entire period of study. An overall increasing trend in the ratio was the result of increase in net earnings.
9. While comparing the return on capital employed and return on equity it suggests that the leverage policy adopted by the managements of sample companies was not favourable as during the entire period under study the return on equity remained below the return on capital employed.
10. To measure the profitability of a concern from the viewpoint of the shareholders, Earnings Per Share (EPS) is a valuable and widely used ratio. It measures the profit available to the equity shareholder on per share basis. The overall average EPS of all the sample companies was Rs.12 03 and its co-efficient of variation of 48.98% indicates that the earnings available to equity shareholders were more or less consistent among all the sample units during the entire period of study
11. The dividend and retention policy of the sample companies as represented by dividend payout ratio shows an overall declining trend and was on an average 36.61%, while retained earnings ratio was on an average 63 39% of the net profit. The higher retained earnings ratio reveals more use of equity funds i.e. conservative policy followed by the managements of the sample companies. It also indicates that the sample companies satisfied their financial requirements first from internally generated funds and tapped the other sources only when they required

- 12 The projected trend of profitability shows a very good break through in the coming years. The forecasted profitability for a period of ten years in future commencing from 2000-01 and ending on 2009-10 would be almost double. As computed on the basis of Regression equation it indicated an around 79% growth in the coming decade which is a sign of very good future operating efficiency of the sample companies as it was in the past.

### **CAPITAL STRUCTURE:**

1. The capital structure analysis reveals that the consolidated average percentage of reserves and surplus was the highest being 60.88% followed by equity share capital at 15.04%, other long-term debts at 6.85%, debentures and bonds at 6.82%, fixed deposits at 5.65% and borrowings from financial institutions at 2.54%. The percentage of long-term bank borrowings was lowest being 2.23%. In other words, the proportion of the net worth in capital structure was 75.92% while that of long-term debt was only 24.08%. This shows heavy dependence of the sample companies on equity funds for meeting their financial requirements during the entire period of study.
2. For analysing the composition of capital structure, normally debt-equity ratio is employed as a principal tool for financial analysis. It expresses the relationship between debt funds obtained from the creditors and equity fund from the owners for building up the fixed assets of the enterprise. The overall average debt equity ratio of all sample companies was 0.60:1.00. It was quite below the standard norm of 2.00:1.00. The ratio was quite low as compared to that of "Pharmaceutical Industry in India" at 0.98:1.00 and "All Industry in India" at 1.06:1.00. The low debt equity ratio revealed that the

capital structure of the sample companies was "Low geared". Management's policies to retain high earnings and to take advantage of 'free pricing' were some of the plausible reasons for low debt equity ratio. The higher proportion of net worth in the capital structure indicates that the managements of the sample companies were very conservative in using debt for financing their assets.

3. The proportion of the long-term debts in capital structure of the company can be measured with the help of long-term debt to capitalisation ratio. The overall average ratio of long-term debt to total capitalisation of the sample companies was 27.23%. The ratio registered an overall declining trend and decreased from 36.12% in 1990-91 to 9.69% 1999-00. It was quite below the standard norm of 67%. All the sample companies have an average ratio below the standard norm. This indicates that management recourse more on equity funds and did not take the advantage of financial leverage.
4. The proprietary ratio expresses the proportion of the total assets financed by the proprietor's funds. A high ratio suggests a sound financial structure of the company. The overall average proprietary ratio of the sample companies was 44.04%. The ratio increased from 36.26% in 1990-91 to 58.66% in 1999-00. The overall increasing trend reveals more use of equity fund in financing the assets. It indicates the financial soundness from the creditors point of view. The lower co-efficient of variation of 15.41% suggests that the managements of sample companies followed a uniform policy with regards to financing of assets by proprietor's funds.
5. Interest coverage ratio is the second category of leverage ratio. It shows the number of times the interest charges are covered by profit before interest

and taxes available for payment. The overall average interest coverage ratio of all the sample companies was 8.83 times. It was quite higher as compared to that of "Pharmaceutical Industry in India" at 2.12 times and "All industries in India" at 1.75 times. The ratio showed an overall increasing trend. It increased from 3.48 times in 1990-91 to 20.88 times in 1999-00. The increasing tendency in the ratio was the result of increased earnings and decreased interest payments. The profits before interest and taxes increased from Rs 141.85 crores in 1990-91 to Rs 641.27 crores in 1999-00 i.e. by 352% whereas the interest payments decreased from Rs 55.85 crores in 1990-91 to Rs 43.35 crores in 1999-00 i.e. by 22.38%. This shows that there was more scope to increase the debt in their capital structure.

6. The relationship of Debt–equity ratio with profitability when statistically tested with the help of co-efficient of correlation, it was found that out of 11 companies, 10 companies had a negative correlation. The theoretical view saying that there should be a positive correlation between debt–equity ratio and profitability up to a targeted debt-equity mix is not substantiated by the results of the present study. The situation observed was that the declining debt equity ratio was the result of growing profitability and retention of earnings. It transpires from the analysis that debt equity ratio is not the only guiding factor to improve the profitability. There may be certain other non-quantitative factors like age of the company, past track records, growth rate risk, perception, availability of debt, management policy, etc., which play dominant roles in selecting the appropriate capital structure.

## WORKING CAPITAL:

1. The aggregate size of gross working capital of the sample companies had maintained an increasing trend during the entire period of study. The investment in current assets increased from Rs.632.56 crores in 1990-91 to Rs. 1753.25 crores in 1999-00 representing a growth of 177.16%. The average annual investment in the current assets stood at Rs.1156.37 crores. The average annual variation of the total investment in current assets and its annual percentage change accounted for Rs.124.52 crores and 12.21% respectively. The co-efficient of correlation between current assets and sales worked out to be +0.96, which indicates high degree of positive association between the two variables. This reveals that increase in the investment in current assets was due to significant increase in sales.
2. The structure of current assets indicates that the average percentage of inventories to current assets was highest being 45.02% followed by debtors at 23.57% and other receivables at 20.11%. The percentage of cash and bank balance to current assets was lowest being 11.31%. Except inventory, all other components of current assets showed an increasing trend during the entire period of study. The declining inventory proportion in the current assets followed by increase in the proportion of cash and bank balance is a healthy symptom in terms of liquidity.
3. The coefficient of correlation calculated to study the relationship between inventory and sales was positive i.e. +0.96 while that between debtors and sales was +0.97. This indicates that increase in sales led to increase in inventory and increase in debtors.

- 4 The total net working capital of all the sample companies as a whole showed a constant increase during the entire period of study. It increased from Rs. 213.71 crores in 1990-91 to Rs.783.44 crores in 1999-00 i.e. by 267%. On an average, the annual variation of the total investments in net working and its annual percentage change accounted for Rs. 63.30 crores and 16.42% respectively. The co-efficient of correlation between current assets and net working capital worked out at +0.98 indicating a high degree of positive association between the two variables. This revealed that the rapid increase in net working capital was ascribed to a faster growth in the size of current assets. The co-efficient of correlation between net working capital and sales of +0.97 indicates high degree of positive association between them. This leads to a conclusion that increase in sales leads to increase in the investments of net working capital almost in the same proportion.
5. Current ratio and quick ratio are the two important ratios to measure the liquidity of a concern. The average current ratio of the sample companies of 1.85:1.00 was lower than the standard norm of 2.00:1.00. Though to a certain extent it showed insufficiency of liquid funds in the business but when compared to the average current ratio of "Pharmaceutical Industry in India" and "All Industries in India" it revealed better management current assets. For a proper analysis of liquidity of current assets, quick ratio was also computed. The average quick ratio of 1.05:1.00 of the sample companies was marginally higher than the standard norm of 1.00:1.00. This indicates that the sample companies had a satisfactory liquidity position.
- 6 To examine the sufficiency of cash to cater the operational needs of the sample companies, the cash turnover ratio and cash in number of days of

operational requirement was computed. The overall average cash turnover ratio and cash in terms of day's operational requirement was 65.51% and 27 days respectively. There is no standard norm prescribed for judging the adequacy of cash. However, a business should keep its cash balance below the requirement of one month's normal expenditure. The analysis showed that the sample units had maintained a reasonable level of cash balance during the period of study.

- 7 To measure the liquidity of inventory and to gauge the efficiency with which the inventory of a business is managed, inventory turnover ratio was worked out. The average inventory turnover ratio of the sample companies was 4.34 times. It increased from 3.61 times in 1990-91 to 5.02 times in 1999-00. The increasing trend in inventory turnover ratio indicates that the sample companies had conducted more business with proportionately less amount of inventories thus resulting in savings of inventory cost and increase in profitability. It further shows that the managements of the sample units managed their inventory very efficiently and has avoided overstocking and excessive investment of working capital funds in inventory. The overall high inventory turnover ratio also reveals higher liquidity of the sample companies.
- 8 Debtor's turnover ratio measures the speed with which debtors are converted into cash. The overall average debtors turnover ratio of the sample companies was 11.99 times. It was higher as compared to that of "Pharmaceutical Industries in India" at 6.94 times and "All industries in India" at 7.72 times. This shows better credit and collection policy followed by the managements of the sample companies. The lower co-efficient of variation

of the sample units of 37.50% indicated that they followed a steady, constant, and uniform credit and collection policy through out the period of study

9. To examine the credit policies followed by the managements of the sample companies for the purchase and sale of goods, the average payment period and average debt collection period was computed and compared. The overall average payment period of the sample companies was 151 days, which when compared with the overall average collection period of 37 days indicates that the sample units enjoyed far more lucrative terms of credit from their supplier than what they offered to their own stockists and distributors for distributing their products. This also shows better credit worthiness of the sample companies.
10. The working capital turnover ratio shows the efficiency with which the working capital is being employed. It also indicates the number of times the working capital turns over in course of one accounting year. The overall average net working capital turnover ratio of the sample companies was 7.89 times. The ratio was higher as compared to that of "Pharmaceutical Industries in India" at 6.20 times. The overall high ratio was mainly due to favourable turnover of inventories owing to declining proportion of inventories in the current assets. This indicates that the sample companies showed greater efficiency in the utilisation of working capital.
11. The amount of net working capital invested in inventory can also be analysed with the help of inventory to net working capital turnover ratio. The overall average inventory to net working capital turnover ratio of the sample companies was 138.82%. The ratio remained above the standard norm of

75% in majority of the period under study. This reveals that the sample companies used more of long-term funds for financing the inventories.

12. Any business enterprise requires fixed assets and current assets to support a particular level of output. But the vital question that the management deals with is to determine the optimum level of current assets. The level of current assets can be measured by relating current assets to fixed assets. The current assets to fixed assets ratio of the sample companies registered an increasing trend during the period of study and was on an average 341.15%. The increase in the ratio was due to the fact that the current assets of the sample companies increased at a greater magnitude in comparison to fixed assets. The ratio was quite high as compared to that of "Pharmaceutical Industry in India" at 170.08% and "All industry in India" at 116.65%. This indicated that the sample companies had followed a highly conservative policy, which gives greater liquidity with lower risk.
13. The effect of change in the level of concern's current liability on its profitability-risk trade-off can be measured by the ratio of current liabilities to total liabilities. It indicates the proportion of short term financing in total financing. The overall average ratio of current liabilities to total liabilities of the sample companies was 40.61%. The overall declining trend of the ratio indicated that the management had substituted long-term sources for short-term source of finance. Such a situation is better for outsiders but from the management's point of view, this may lead to a very high amount of long term committed funds which being more expensive can lead to reduction in the profitability. But for the sample companies the long-term sources in form of net worth were explicitly cost free funds and thus did not affect the

profitability. The lower co-efficient of variation of 12.97% reveals that all the sample companies had followed a uniform policy with regards to current liabilities to total liabilities.

14. Financing of the working capital is an integral part of working capital. On an average, 24% of the working capital gap was financed by the short-term bank borrowings and the remaining was financed through long-term sources. Comparing the maximum permissible bank finance calculated on the basis of second method of lending as suggested by the Tandon Committee, with the actual bank borrowings from bank reveals that on an average, the sample companies utilised only 44.15% of the total eligible bank borrowings in spite of their higher eligibility of bank finance. Thus management of the sample companies adopted a policy of not resorting to bank borrowings as a means of working capital finance instead they relied heavily to finance working capital gap from long-term sources. On applying the norms suggested by Nayak Committee and Vaz Committee for working capital financing on the basis of turnover, it revealed that none of the selected sample units borrowed more than their eligible limit of 20% of the turnover and they also met with the criteria of bringing in more than 5% margin from long-term sources. This shows that the sample units had not relied much on short-term bank borrowings for their working capital needs
15. Sources for financing of working capital is the most crucial area to be studied in the appraisal of working capital. The long term funds was the single largest source of working finance for the sample companies being highest at 47.92%, followed by short term bank borrowings at 27.31% and funds from operation at 24.67%

16 The management of working capital has an important bearing on the profitability of an enterprise. Generally, the higher the working capital, the lesser is the rate of return on capital employed while a lower value of working capital yields a higher rate of return. The impact of working capital on profitability has been examined by computing simple co-efficient of correlation between Return on Capital Employed (ROCE) and some of the important ratios related to working capital management. The study on interrelationship shows that current ratio (CR) and quick ratio (QR) were positively correlated with ROCE at +0.49 and +0.56 respectively. This indicates that when current ratio and quick ratio increased profitability also increased. The co-efficient of correlation between ROCE and inventory turnover ratio (ITR) was +0.73. The high degree of positive correlation shows that the higher the turnover higher is the profitability. The negative co-efficient of correlation between ROCE and debtors turnover ratio (DTR) indicates that both these ratio moved in the opposite direction. Looking at the trend of DTR it can be observed that it had a declining tendency. This was due to the fact the proportion of debtors in the total current assets increased due to increased sales, which resulted in increased the profitability. The co-efficient of correlation of  $-0.09$  between working capital turnover ratio and ROCE indicates very low degree of negative association between the two variables. Among all the ratios the correlation coefficient between ITR and ROCE, DTR and ROCE, ACP and ROCE were found to be significant at 5% level of significance. But no such significant association was found in the remaining ratios.

**FIXED ASSETS:**

1. The analysis of the structure of fixed assets reveals that net fixed assets of sample companies represented less investment compared to current assets, as they constituted a consolidated average of 30.83% of the total funds employed. It shows an overall declining trend during the entire period of study. The overall declining trend in net fixed assets proportion corroborated by a decline in the debt-equity ratio indicates that a major portion of equity including internally generated funds was utilised to finance the growing needs of working capital.
2. The analysis of components of fixed assets of sample companies shows that plant and machinery, land and building and other fixed assets in that order were the principal items of gross block in majority of the sample companies.
3. To measure the growth of fixed assets, the average annual growth in gross block and net fixed asset was computed. Except for unit no.4 the average annual growth of gross block was observed in all the sample companies. The average annual growth of net fixed asset was also observed in all sample companies excepting unit no.3 & 4
4. To measure the impact of gross block on sales and operating profit of the sample companies under study the trends of gross block and sales in terms of index numbers and operating profit margin in percentage have been calculated. The consolidated position of gross block and sales index of the sample companies showed an overall increasing trend during the period of study. The gross block increased by 2.01 times while sales increased by 2.49 times in 1999-00 as compared to the base year 1990-91. The rate of growth in sales was comparatively higher than the rate of growth in gross

block, which reveals efficient utilization of fixed assets. The impact of expansion of gross block on the operating profit margin of the sample companies was also positive. The consolidated operating profit margin increased from 8.70% in 1990-91 to 15.80% in 1999-00.

5. Fixed assets turnover ratio is the most important tool used to evaluate the effectiveness of fixed assets. It measures the speed and efficiency with which a concern is utilising its fixed assets. The overall average fixed assets turnover ratio of the sample companies was 7.59 times. The ratio was quite higher as compared to "Pharmaceutical Industries in India" at 2.91 times and "All industries in India" at 2.04 times. A higher ratio indicates that the sample companies made efficient use of fixed assets to generate higher production and thereby sales.
6. The depreciation policy of the sample companies has been studied by calculating two ratios viz., depreciation to gross block ratio and depreciation to sales. Normally if the percentage of depreciation to gross block shows an increase, the depreciation consumes a larger portion of sales reducing thereby the operating income. The sample companies on an average provided for depreciation at a rate of 6.11%, which on an average consumed 1.75% of its sales. The overall inclining trend of both these ratios indicated that higher and higher proportion of sales was consumed by the amount of depreciation with the passage of time. However, as both these depreciation rates were not equal it can be inferred that the rates of growth of gross block and sales was not the same though the direction was the same. On the basis of the average ratio of depreciation to gross block in all the sample companies it can be stated that the depreciation policy was different in all the selected sample companies

- 7 To analyse the sources of financing fixed assets used by the sample companies, fixed assets to net worth ratio and fixed assets to long-term debt ratio have been used. The overall average of fixed assets to net worth ratio of 88.08% and the overall average of fixed assets to long-term debt ratio of 415.85% indicates that the sample companies depended on the owned funds to a great extent rather than on borrowed funds for financing the fixed assets.

### **ANALYSIS OF SOURCES AND APPLICATIONS OF FUNDS:**

- 1 A statement of sources and application of funds, also known as a funds flow statement, is a technical device designed to highlight the changes in the financial condition of a business enterprises between two balance sheet dates. The statement enables the various parties interested in financial position of the company to evaluate the uses of funds by the company and to determine how these uses are financed. The consolidated common size funds flow statement of the sample companies reveals that the aggregate funds inflow shows an overall increasing trend during the entire period of study. The total funds generated by the sample companies increased from Rs.151.85 crores in 1990-91 to Rs. 268 00 crores in 1999-00 i.e. by 76.48%. The significant growth in the funds was the result of great spurt in the volume of funds from operations. Funds from operation were the prime source of funds constituting 77 03% of the aggregate funds inflows generated. The overall rising trend in the volume of funds from operation can be attributed to rising of sales, which provided the sample companies with more profits. The second important source was the funds raised from loans, which constituted 11 51% of the aggregate funds generated during the ten years of study. This

reveals that the sample companies used long-term debts sparingly and therefore the debt proportion in the capital structure was also very low. The inflows of funds through issue of shares and sale of investments were marginal being 5.42% and 5.31% of the aggregate inflow of funds respectively. Besides this, decrease in working capital also formed a very nominal part of inflows of funds.

2. The majority of the funds obtained through the various sources was utilised to finance the acquisition of fixed assets. The total funds used for this purpose amounted to Rs. 718.66 crores during 1990-91 to 1999-00, which constituted 38.92% of the aggregate funds generated. As selected sample companies are manufacturing concern in nature they require more funds to finance the capital expenditure like acquisition and installation of fixed assets. Another important use of funds was to support and finance the increasing working capital requirements. Almost 32.66% of the total funds were utilised for financing the increased working capital requirements of the sample companies. The third important use of funds was the purchase of investments, which constituted 15.26% of the aggregate funds generated. All the sample companies except two utilised their surplus funds for the purchase of investments to some extent. Funds to an extent of 13.16% of the total aggregate funds of the sample companies were utilised for the payment of long term secured and unsecured borrowings.
3. Considering the importance of the direction of change over a period of time the trend of funds generated have been analysed. The linear least square value of funds inflows of sample companies reveals that out of ten years of study, during three years i.e. 1992-93, 1993-94, and 1996-97, the trend

values of funds flow differed materially. The deviations during the remaining years were not so significant. The deviations were negative during the year 1991-92, 1992-93, 1996-97 and 1998-99 while they showed positive trend in the rest of the years during the period under study. The difference between the actual value and the computed value of funds generated when statistically tested applying the chi-square test was found to be significant at 5% level of significance.

## CONCLUSIONS:

1. The appraisal of profitability made on the basis of various ratios shows that the profitability of the sample companies was quite appreciable. The gross profit margin and net profit margin ratios were quite satisfactory. High assets turnover ratio and declining operating ratio helped the sample companies to increase their profitability. It indicates higher operating efficiency of the managements. The declining trend of operating ratio shows managements efficiency to exercise control over the operating cost.
2. Higher rate of return on total assets reveals that the financial resources employed in the assets were utilised prolifically.
3. Higher rate of return on equity shows efficient utilisation of the owner's funds. A high return was the result of efficient management and favourable general business conditions. The earnings measured on per share basis reveals that the performance and prospects of the sample companies was satisfactory.
4. The dividend and retention policy indicates that the managements of the sample companies followed a conservative policy. They had ploughed back larger amount of profits for their expansion, modernisation and development activities.

5. The capital structure was "low geared". The debt equity ratio remained below the standard norm of 2:1 during the entire period of study. On the whole it can be concluded that the managements of the sample companies were very conservative in using debt for financing their assets. They adopted the policy of depending more on owned funds rather than on the debt funds. They could have certainly extended the use of debt fund and could have taken the advantage of financial leverage.
6. There was much more scope to increase the proportion of debt funds in the capital structure of the sample companies as the interest coverage ratio was very high
7. In the total composition of current assets, inventory constituted a major part followed by debtors, cash & bank balance and other receivables. There was no excess accumulation of any component of current assets.
8. The liquidity position of the sample companies was satisfactory. They had a current ratio marginally lower than the standard norm of 2:1 but the quick ratio was above 1.1. The high liquid assets helped the sample companies to meet their current obligations.
9. Cash component of the current assets is of vital importance for the daily operations of a business concern. The overall high cash turnover ratio and reasonable level of cash in number of days of operational requirement indicates operational adequacy of cash. The overall high turnover of cash indicates that the managements made effective and efficient use of this resource
10. High payment period and low collection period shows better credit-worthiness and sound credit and collection policy of the managements.

- 11 The higher working capital turnover ratio of the sample companies indicates efficient utilisation of working capital fund, optimum investment in current assets and greater profitability. The overall situation of the sample companies substantiates the statement “ higher the turnover greater the efficiency”.
12. The inclining trend of inventory turnover ratio shows an efficient management of inventory. The management of sample companies shunned overstocking and excessive investment of working capital funds in inventory. It also indicates that the management conducted more business with proportionately lesser amount of inventories. A higher turnover ratio also indicated higher liquidity of inventory.
13. The sample companies adopted a conservative policy of investment in assets. The proportion of current assets in comparison to fixed assets was quite high.
- 14 The managements of the sample companies followed a policy to use more of long-term funds than short-term funds. They did not make use of short-term bank borrowings even though they had higher eligibility of bank finance. The managements thus followed a highly conservative policy
- 15 The plant and machinery, land and building and other fixed assets in this order were the principal items of gross block in majority of the sample companies. The growth in these items had a positive impact on sales and operating profit margin This shows that growth of gross block led to growth of sales and this in turn led to rise in profit.
- 16 The sample companies has made efficient utilisation of their fixed assets as the average fixed assets turnover ratio was quite high The quantum of sales justified the size of investment in fixed assets

17. Analysis of funds flow brings to the fore that on an average, funds from operation, long term borrowings, issue of shares, sale of investments and decrease in working capital in that order have been a source of funds during the entire period of study and that majority of funds were deployed in purchase of fixed assets and for financing working capital.
18. Of the eleven-sample units, unit no.8 was the best having the higher gross profit margin, higher net profit margin, higher return on capital employed and higher return on equity. It had a very high debtors turnover ratio and working capital turnover ratio. Moreover, the unit had a very low debt-equity ratio. The unit was financially and profitably sound.

From the above discussions it can be concluded that the profitability, liquidity and solvency position of the selected medium and large size multinational pharmaceutical companies was quite satisfactory

### **SUGGESTIONS:**

- 1 The operating expenses in relation to sales of the sample companies were higher when compared with that of "Pharmaceutical Industry in India " and "All industries in India" To reduce operating expenses it is suggested that the managements should exercise a strict control over the administrative and selling expenses. This would help to decrease the operating cost and thereby increase the returns. For the reduction and control over expenses, techniques like budgetary control and standard-costing techniques should be implemented
- 2 Internationally it is understood that for the healthy growth of the industry, high margin enables the industry to invest in research and development, which is not only essential but also inevitable to survive In this connection it

is suggested that the multinational pharmaceutical companies should forge links with leading western clinical research organizations that are expanding in Asia. Such an arrangement would enable the sample companies to reap the benefits of clinical development without taking on extra overheads, which would further enhance the profit margin.

3. The pharmaceutical industry is a highly research- intensive industry. The weighted deduction on in-house research and development expenses incurred up to 31<sup>st</sup> March 2002 for accelerating scientific research approved by the prescribed authority has been allowed under section 35(2AB) of the Income Tax Act, 1961. The enhanced benefit of weighted deduction given in future under the Income tax act would be appreciable.
4. The deduction in respect of dividend received by a domestic company from another domestic company has been re-introduced from the assessment year 2003-04 under Section 80 M of the Income Tax Act. Benefit of such deduction should be extended for foreign companies also
5. For a low geared capital structure of the sample companies it is suggested that the level of the debt component should be increased. In future the managements should try to make more use of debt and should try to take advantage of financial leverage. The increased financial leverage will increase the market value of the shares and thereby the wealth of the shareholders.
6. None of the sample companies under study had raised funds through issue of preference shares during the entire period of study. The sample companies may adopt convertible preference shares, which are in vogue in the western countries for raising funds. Moreover Income Tax Act should be

amended and the companies should be permitted to deduct dividends on shares as revenue expenditure like interest on debentures out of pretax profits. This would help in making preference shares more popular

7. There is much more scope to increase debt in the capital structure of the sample companies. The management of the sample companies has sparingly used convertible debentures, financial institutional loans term loans from banks etc. It is suggested that the managements should take advantages of this sources and try to get the benefit of financial leverage.
8. The conservative policy adopted by the managements with regards to investment in current assets may lead to decline in the profitability of the sample companies in future. A very high proportion of the so-called short-lived assets, keep the funds tied up on permanent basis. Thus, to ensure higher profitability in future it is suggested that the current assets be managed skillfully.
9. The sample companies did not prefer short-term bank borrowings as a means of source of financing working capital requirements. A greater use of this source of financing could have been made to increase the return on investment.
10. Structural analysis of the components of working capital components current assets revealed that in many of the sample companies the cash and bank balances were significantly high during the latter period of study and have remained idle. Thus it is suggested to invest excess bank balances in most productive and profitable alternative investments. Close monitoring of cash resources by preparing cash budget is also suggested. This will help the management to determine the optimum size of cash balance.

- 11 The overall average of debtors' turnover ratio though being high had an overall declining trend. The quinquennial average of the second half of the study period was lower as compared to that of first half, which indicates that the sample companies adopted liberal policy in the later years. It is suggested a suitable cash discount policy should be designed and implemented to encourage the speed of debtors.
12. The drugs and pharmaceutical industry in India has been facing difficulties on the price front owing to rigid control by government. Therefore it is suggested to further exclude drugs from the purview of DPCO, which would help the sample companies to increase their profitability.

### **SCOPE FOR FURTHER RESEARCH:**

This study is an attempt to appraise the financial performance of a selected medium and large size multinational pharmaceutical companies in Mumbai. It is expected that the present study will encourage, stimulate and even provoke further research on various facets of financial management. Based on the study a few recommendations for further studies are listed as follows

- 1 The coverage of the present study is limited to only 11 selected multinational pharmaceutical companies, which can be further extended so as to broaden the scope of the present study.
- 2 Separate in-depth study should be made for each facets of financial management separately i.e. profitability, capital structure, working capital and funds management in the multinational pharmaceutical companies operating in India.
- 3 Specific studies on relationships between multinational companies and host companies should be made. It will be of great help to the management of

these companies as well as the governments in host countries to understand each other better and to fine-tune their policies for their reciprocal benefit.

4. Another study related to the role and contribution made by multinational pharmaceutical companies in the overall development of the pharmaceutical industry in India should also be made.
5. The multinational pharmaceutical companies should try to publish discerning and imperative information –statistical and financial, on an uninterrupted basis for the benefit of systematic and academic research based on such data