CHAPTER V

Analysis and Interpretation of Financial Statements
5.1. Introduction:

The analysis of the economic and financial performances is a frequently debated matter in the economic media from the last decades, covering a very large spectrum, comprising various meanings and tendencies which will continuously capture the interest of the economists, the accountants and the IT specialists. A firm’s performance measurement has been the subject matter of discussion for decision makers as managers, planners, economists and academic staff since long many years. The present study attempts to examine financial performance at the level of Indian pharmaceutical industry, to identify its strengths and weaknesses. Also to analyze how financial performance is achieved by the companies from this industry and to identify the main influence factors.

5.2. Financial Statement Analysis:

Financial performance analysis mainly classified into two categories on the basis of material consumed and modus operandi. Financial statements are analysed for measurement of financial performance of a business. An analysis of financial performance can be possible through the use of various tools and techniques of financial analysis. These tool and techniques are classified in three main categories:

1. Accounting techniques
2. Statistical techniques
3. Mathematical techniques

Accounting Techniques

Accounting techniques are also termed as financial techniques. Various accounting techniques can be used for the purpose of financial analysis. The Measurement of profitability is as essential as the earning of profit itself for a business organisation. The profitability of a business organisation can be evaluated or measured from number of perspectives, and there are various
quantitative as well as qualitative methods that can be employed for this purpose. The suitable accounting techniques for the financial analysis of stock exchanges are listed below and some of the techniques used are mentioned below:

- **Comparative Financial Statement Analysis**
  - Comparative Balance Sheet
  - Comparative Income statement

- Common-Size Financial Analysis
- Ratios Analysis
- Correlation and Regression Analysis
- Value Added Analysis
- Analysis of Time Series
- Cross-sectional analysis
- **Cross-sectional cum time series analysis**

The ratios analysis is the most important and powerful tool of financial statement analysis. Ratios simply mean one number expressed in terms of another. A ratio is a statistical yardstick by means of which relationship between two or various figures can be compared or measured. According to Hingorani, “Accounting ratios are relationships expressed in mathematical terms between figures with a cause and effective relationship or which are connected with each other in some manner or the other.” Ratio may be based on figures in the profit and loss A/c or in the balance sheet or in both. So the Ratio Analysis is the study of specific relationship and forms the heart of the statements analysis.

**Trend Analysis**

Trend analysis indicates changes in an item or a group of items over a period of time and helps to drown the conclusion regarding the changes in data. Trend analysis is very helpful in marking comparative study of the changes in an item of groups of items over a period of time and to make conclusions regarding the change in date. For this purpose, a base year is selected and the amount of the
item relating to the base year is taken equal to a hundred and Index number are computed for other years based on the amount of item relating to the base years based on the amount of that item in those years. It shows the direction in which concern is going.

**Graphical Presentation/Analysis**

The transformation of data through visual methods like graphs, diagrams, maps and charts is called graphical representation of data. Graphics, such as maps, graphs and diagrams, are used to represent large volume of data. Diagrams and graphs are visual aids, which give a bird’s eye view of a given set of numerical data. They present the data in simple, readily, comprehensible and intelligible form. Graphical presentation of statistical data gives a pictorial effect instead of just a mass of figures. They depict more information than the data shown in the table which through light on the existing trend and changes in the trend of the data.

**Importance**

- If the information is presented in descriptive record or in tabular form, it becomes difficult to draw results. Graphical form makes it possible to simple and easily to draw visual impressions of data.

- The graphical method of the representation of data enhances our understanding.

- It makes the easy comparisons.

- Besides, such methods create an imprint on mind for a longer time.

- It is a time consuming task to draw inferences about whatever is being presented in non–graphical form.

- It presents characteristics in a simplified way.
Mathematical Techniques

Financial analysis also involves the use of certain mathematical tools such as Programme Evaluation and Review Techniques (PERT), Critical Path Method (CPM) and Linear Programming etc.

5.3. Financial Efficiency and Productivity Management Concept of Efficiency and Performance

The word efficiency as defined by the Oxford dictionary states that:"Efficiency is the accomplishment of or the ability to accomplish a job with minimum expenditure of time and effort". It refers to the internal process that leads to output. It focuses on the means to achieve the desired end. As expressed by Peter Drucker "Doing the things the right way is Efficiency." This denotes the fulfillment of the objective with minimum sacrifice of the available scarce resource. Fatless and speedy compliance to the process or system procedure is a measure of efficiency. Providing a specified volume and quality of service with the lowest level of resources capable of meeting that specification, performance measures and or indicators are required. These include measures of productivity, unit volume of service etc. These measures help in minimizing of the resources in achieving the organizational objectives i.e., things rightly. Performance is the execution or accomplishment of work feats etc. or a particular, action, deed or proceeding is refers as performance. However, the manner in which or the efficiency with which something reacts or fulfils its intended purpose is defined as performance. Performance may thus, mean different things to different businesses. Success or failure in the economic sense is judged in relation to expectations, return on invested capital and the objective of the business concern. “In understanding the term performance, a clear distinction needs to be drawn between Performance Measures and Performance Indicators. Performance

• These make it easy to understand the patterns of growth, fluctuations, etc.
measures need to be based on cat evaluation of the causes and effects of policy intervention whereas a performance indicator is less precise and usually provides only intermediate measure of achievement”.

5.4. Financial Performance

Financial Performance is the blueprint of the financial affairs of a concern and reveals how a business has prospered under the leadership of its management personnel. Performance of any organization can always be judged in the light of its objectives and the main objective of a bank is to earn profit and to enlarge profit by making the most efficient use of the resources available to them. The Indian Public Sector did run with the object of maximizing profits. They were making due contribution towards the fulfillment of socio-economic objectives laid down by the government and SEBI.

The financial performance of companies could be analyzed by a composite index of not only quantifiable selected trends and ratios, an analysis of the financial statements, a study of the cash flow and the fund flow statements etc. but also qualitative factors like operational efficiency and effectiveness and socio-economic development of the country.

5.5. Concept of Efficiency

‘Efficiency’ is closely related to security of the working system of a company as a whole according to Sudha Nigam” Appraisal is a technique to evaluate past, current and Projected Performance of a Concern.” It is a powerful applied tool to examine, to measure, to interpret to weigh critically and draw outputs. Different specialists who examine the specific problem with their company does appraisal. Appraisal can be divided into two Parts (I) internal (ii) external. According to Pitt Francis “Internal efficiency of the company not only means making some of having adequate human, Physical and Financial resources
but seeing that they are optimally employed.” Thus, the concept of efficiency means the evaluation and performance of a concern included in the appraisal.

5.6. Operational Efficiency

Operational Efficiency of an organization is the ability utilizes its available resources to the maximum extent Operational Efficiency can be judged in the light of financial efficiency. It can be said that neither profitability ratios turnover ratios by themselves provide good indicators measure operational efficiency. Operational Efficiency of a bank is associated with diverse aspects such as operational cost effectiveness profitability, customer services, priority sector lending, and deployment of credit in rural and backward regions and mobilization of deposits. In short, it is said that it is the ability to utilize the available resources in order to carry out operational activities of the aluminums industry, which reveal its success failure in providing aluminum products to its custom.

5.7. Measurement of Performance

“Measurement is a process of mapping aspects of a domain into other aspects of a range according to some rule of correspondence” While according to Tripathi “Measurement is the assignment of numerals to characteristics of objects, persons, states or events, accounting to rules. What is measured is not the object, person, state or event itself but some characteristics of it. When objects are counted for example we do not measure the object itself but also its characteristics of being present. We never measure people only by their age, height, weight or some other characteristics.” But we measure through their overall performance. While measuring the performance of the company the first requirement is the thoughts and goals of human beings are mostly realized through the establishment of diverse kinds of relevant associations. The functions of all associations were established for fulfillment of some goals and objectives. As an output point of view Association needs measurement of performance to
find out as to how much the organization has achieved by its course of action towards its goals or targets.

5.8. Financial Conditions of Global Pharma Sector:

According to SESRIC (2011) the global pharmaceutical industry has proved a rapid growth over the years and emerged as one of the fastest growing industries in the world. However, world pharmaceutical production and consumption is still unevenly dispersed around the world with the developed countries as the leading producers and consumers of pharmaceuticals.

IMS Health (2014) stated that world pharmaceutical market was valued at US$ 875 billion with a growth rate of 4.1% over the previous year at the constant exchange rate. The volume of pharmaceutical industry has surged from USD 647 billion in 2005 to USD 875 billion in 2010, corresponding to an increase of 35.2%. During this period, the industry’s growth rate has witnessed a declining trend from 7.2% in 2005 to 4.1% in 2010. This decline is mainly associated with the slowdown in economic activity, especially in the developed countries which consume a large quantity of global pharmaceutical products. In 2008, economic slowdown in developed countries culminated into one of the worst global financial and economic crisis since the Great Depression. The negative effects were felt across the globe and the pharmaceutical sector experienced the same situation. However, in 2009, the negative effects of the crisis subsided and global economy has started to recover.

Both in terms of production and consumption, global pharmaceutical market is highly concentrated in the developed regions like North America (38%), Europe (29%) and Japan (12%) which in 2010 accounted for nearly 80% of global market. Developing regions like Asia, Africa, Australia and Latin America with a share of nearly 85% of world population are accounted for only 21% of global pharmaceutical consumption in 2010. A breakdown of pharmaceutical market in developing world reveals that Asia, Australia and
Africa represent nearly 15% whereas Latin America accounts for 6% of the global pharmaceutical market.

**5.9. Financial Conditions of Indian Pharma Sector:**

The Indian pharmaceutical Industry has witnessed a robust growth of around 14% since the beginning of the 11th Plan in 2007 from about Rs 71000 crores to over Rs1 lac crores in 2009-10 comprising some Rs62,055 crores of domestic market and exports of over Rs 42,154 crores. This also amounts to around 20% of total volume of global generics. However, the Industry is quite fragmented and comprises of nearly 10,500 units with majority of them in unorganized sector. Of these, about 300-400 units are categorized as belonging to medium to large organized sector with the top 10 manufacturers accounting for 36.5% of the market share. As regards the Bulk drugs component of the industry, the market is around Rs 42,000crores giving it a share of around 50% of the total domestic market. This gives the Indian Bulk Drug industry a share of about 9% of the global bulk drug market.

India received independence from Britain in 1947. In the early years following that event, MNCs were allowed to export drugs—mainly low-priced generics and a few high-priced specialty items. When the Indian government increased pressure against the import of finished products, MNCs developed formulation units in India and exported only bulk drugs to that country. In the early 1960s, the Indian government encouraged the indigenous manufacture of bulk drugs. India's pharmaceutical industry is now ranked as the third largest industry in the world in terms of volume. Its rank is 14th in terms of value. Between September 2008 and September 2009, total turnover of India's pharmaceuticals industry was US$ 21.04 billion. The domestic market was worth US$ 12.26 billion. This was reported by the Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers. As per a report by IMS Health India, the Indian pharmaceutical market reached US$ 10.04 billion in size in July 2010. There are about 250 large
units and about 8000 Small Scale Units, which form the major empire of pharmaceutical industry in India (including 5 Central Public Sector Units). These units produce the large range of pharmaceutical formulations, like medicines ready for consumption by patients and about 350 bulk drugs, including chemicals having therapeutic value and used for production of pharmaceutical formulations. The Indian pharmaceutical industry meets around 70% of the domestic demand for bulk drugs, drug intermediates, and pharmaceutical formulations.

The Indian pharmaceutical sector is highly fragmented with more than 20,000 registered units. It has expended drastically in the last two decades. The pharmaceutical industry in India is an extremely fragmented market with severe price competition and government price control.

The pharmaceutical industry in India meet around 70% of the country’s demand for bulk drugs, drug intermediates, pharmaceutical formulations, chemicals, tablets, capsules, orals and injectibles. The government stated to encourage the growth of drug manufacturing by Indian companies in the early 1960’s and with the patents Act in 1970. However, economic liberalization in 90’s the former prime minister P.V. Narashima Rao and then finance minister Dr. Manmohan singh enabled the industry to become what it is today. This patent act removed composition patents from food and drugs, and through it kept process patents, these were shortened to period to five to seven years.

The pharma companies have started facing challenges in domestic market due to increase in competition from unlisted MNCs in this segment. They are rapidly expanding their field force to extend their geographical reach and also Pharmaceutical companies entered a difficult period where shareholders, the market and regulators have created significant pressures for changing within the industry. The pharma industry also have challenges particularly to improve infrastructure, new product patent, drug price control and quality management and R&D programs.
India is among the top 20 pharmaceutical exporting countries and the exports have grown very significantly at a CAGR of around 19% in the 11th plan period. Indian drugs are exported to around 200 countries in the world with highly regulated markets of USA, UK etc. The major therapeutic categories of export are anti infective, anti asthmatic and anti hypertensive.

The Department of Pharmaceuticals has a Vision for the development of the Indian Pharmaceutical Industry. This Vision is –

“To make India the Largest Global Provider of Quality Medicines at Reasonable Prices.”

The Vision is to be achieved as per the following Mission:

• Develop Human Resources for Pharmaceutical Industry and Drug Research and Development
• Promote Public-Private Partnership for development of pharmaceuticals Industry
• Promote Pharma Brand India through International Cooperation
• Promote environmentally sustainable development of Pharmaceutical Industry
• Enable availability, accessibility and affordability of drugs

In order to realise the Mission, the Department has set the following Goals for 12th plan:

• Production size of US$60bn and export size of over US$25bn.
• Upgradation of SMEs to WHO-GMP and training of professionals therein.
• Establishment of Pharma Growth Clusters.
• Facilitate growth of Central Pharma PSUs.
• Develop Pharma Infrastructure and Catalyze Drug Discovery and Innovation
• Develop Pharma Human Resources through increased M.Pharm. and Ph.D. programs in NIPERS
• Provide Infrastructure and staff for new NIPERs and strengthen NIPER Mohali
• Open 10 new NIPERs
• Jan Aushadi Campaign and implementation of Business Plan for setting up of 3000 Jan Aushadhi Stores (upto Subdivision level in the country)
• Incentivizing Private Sector for development of new Drugs for diseases endemic to India.

For the achievement of these Goals, it is necessary for the Indian Pharmaceutical Industry to become globally competitive through world class manufacturing capabilities with quality and cost efficiency of production capacity and radical up gradation of research and development capabilities for new drugs and associated activities like clinical trials and contract manufacturing. There is need to develop world class support infrastructure both for production and research.

With this approach, the preparation of the 12th Plan involved a detailed SWOT analysis of the Indian Pharmaceuticals Industry. This analysis has revealed the following strengths:
(a) Strong Low cost manufacturing sector (b) Significant breadth and depth of product expertise (c) Low cost of growing Human resources in the Pharma sector. The major weaknesses are –
(a) High emphasis on generics both for domestic and international markets where filing and approval of ANDAs and DMFs have left little room for R&D on drugs development
(b) Inadequate R&D Infrastructure
(c) Poor Industry-Academia linkage
(d) Lack of required high-end product development capable human resources
(e) Lack of time driven regulatory infrastructure
(f) Poor SME base for high-end manufacture.

The major opportunities available are -
(a) Global opportunity for increasing Generics and bio-generics market both in developed and emerging countries due to pressure on budgetary limitations of
these countries as well as emergent patent cliff due to off-patenting of major high-value drugs
(b) Low cost good skill destination for contract research and manufacturing and resultant opportunities in drug discovery as well as clinical trials
(c) High growth of domestic market attracting multi-nationals both for brown field and green field investments in production and capacity building.

The threats to the industry are from -
(a) Ever-greening strategy of MNCs for denying and limiting the patent cliff opportunities with debatable recourse to TRIPs and FTAs
(b) Increasingly stringent regulatory and non-tariff barriers to generics markets in developed countries
(c) Increased competition for generics and bio-generics production in terms of high capacity and production costs
(d) High-entry barriers to enable market share in development of new drugs.

Based on the above SWOT analysis, recommendations have been made in the 12th Plan Document for –
1) Development and growth of the Industry
2) Strengthening of R&D Capabilities
3) Strengthening of human resource base for Industry
4) Affordability and Access to Quality Drugs

The major recommendations concerning support for Industry growth are - (a) Schemes for Upgradation of SMEs to WHO-GMP, USFDA/EDQM/TGA and other International Standards
(b) Support for new generics and bio-generics through setting up of Formulation Development Centers and Manufacturing Standards Training Centers
(c) Regional cluster-based Industry development through establishment and upgradation of 10 Pharma Growth Area Clusters (d) Industry support to International market access through capacity building and inter-governmental
cooperation. The Medical Device Industry is also proposed to be supported through the development of a Medical Devices Park in Ahmedabad, Gujarat.

In the area of R&D and human resource development the major recommendations concern
(a) Setting up of National Excellence Centres comprising three for Research and Development in Phyto‐pharmaceuticals, Nano‐Pharmaceuticals and Bio‐Similars, one for setting up of National facilities for New Drugs Development along with another for End to End Large‐Scale Animal House and setting up of a National Centre for R&D in APIs
(b) Schemes for supporting R&D in Industry through assistance for setting up of GLP/GCP/Animal House Lab Schemes
(c) Setting up of Pharma Venture Capital Fund to fund innovations in drug discovery including incubator driven translational research
(d) Pharma Innovation and Infrastructure Development Initiative for R&D infrastructure development including funding of private sector initiatives in PPP mode. Emphasis on supporting extra mural research in development of new drugs and dosage forms for mass affliction diseases like JE, Chikungunya, TB (resistant strains), leishmeinasis, malaria, and the recent lifestyle diseases like diabetes and CVD, etc.

As regards strengthening of Human Resource base, it is estimated that direct employment in Pharmaceuticals Industry has increased from about 6.9 lacs people in 2006 to 8 lacs people in 2008 with 20% of this manpower being engaged in research and testing. The projected human resource requirement is around an estimated 21.5 lacs by 2020. Based on this it is proposed to fill the HR requirements through Schemes such as
(a) Expanding the student output at NIPER Mohali
(b) Development of 6 New NIPERS already sanctioned in the 11th Plan and
(c) Setting up of 10 New NIPERS etc.
The 12th Plan Document highlights the vital role Drug price play in access to essential medicines across the world. While it is a fact that the drugs manufactured in India are considered to be amongst the lowest priced internationally, still, a vast section of Indian population is not in a position to access the needed health care as well as the medicines due to various reasons of access and affordability. Accordingly, the recommendations made by the Task Force under Dr. Pronab Sen made have been considered and a draft National Pharmaceuticals Pricing Policy has been formulated which seeks to control the prices of essential drugs as per the National List of Essential Medicines 2011 (NLEM- 2011). Further to this, the Department would take up issues pertaining to prescription and promotion of unbranded generic drugs with the Department of Health. Issues related to pricing of patented medicines would also be suitably considered in the light of need for promoting industry growth and research as well as development of new drugs along with affordability of new patented medicines for better therapeutic treatment of the masses, especially in diseases pertaining to cancer and HIV. Accordingly, it is proposed to continue schemes for strengthening of the NPPA, for such functions as:

(a) Strengthen Monitoring and Enforcement Work,
(b) Building Consumer Awareness about pricing and availability and
(c) Creation of NPPA Cells in States, etc.

The present market size of Medical Devices and Equipments is around Rs 15,000 crores. The medical device Industry in India is very nascent and is largely import dependent. More than 65% of India’s requirement of medical devices and equipments are met through imports with domestic production being largely restricted to low technology disposable equipments. The SWOT analysis of Medical Device Industry shows that its major strengths are –

(a) Well developed Microelectronic, Telecommunication, Software and Precision Engineering Industry,
(b) Ability to attract foreign investments and
(c) Ability to handle low value large volume production as per global quality standards.

The major weaknesses are –
(a) Low per capita expenditure on health care & low health insurance,
(b) Lack of adequate and trained manpower,
(c) Lack of incubation and suitable ecosystem,
(d) Lack of regulation/standards etc.

The major opportunities are –
(a) Huge market potential,
(b) Growing opportunities in export market,
(c) Growing demand on account of changing demographic profile, increasing incidences of life style diseases like cancer, CNS and diabetics, etc.

The major threats are –
(a) Growing competition in export markets,
(b) Increasing dependency on imports,
(c) Unorganized market for medical disposables,
(d) Lack of regulations in medical disposables and surgical items.

To give a boost to the Medical devices Sector, a number of schemes have been proposed such as for -
(a) Setting up green-field Medical Devices Park and
(b) Setting up National Center for R&D in Medical Devices at NIPER Ahmedabad

The 11th Plan aimed at making the sick CPSUs financially viable through support for modernisation and rehabilitation as well as waiver of dues and payment of VRS packages. Accordingly, Hindustan Antibiotics Ltd (HAL) and Bengal Chemicals and Pharmaceuticals Ltd(BCPL) were given support of over Rs. 1000 crores in the 11th Plan period involving waiver, settlement and cash assistance for modernisation. Karnataka Antibiotics and Pharmaceuticals Ltd (KAPL) and Rajasthan Drugs and Pharmaceuticals Ltd(RDPL) were also given
financial support following their delinking from HAL and IDPL respectively so as to make them individually more viable and independent in pursuing growth plans. As a result, the Pharma PSUs have been able to achieve a combined business of more than Rs. 600 crores. It is expected that they would grow in the 12th Plan for which Government support for marketing will be required. Accordingly, no major scheme has been proposed. The rehabilitation of Indian Drugs and Pharmaceuticals Ltd (IDPL) could be considered during the 12th Plan as per approval of the Cabinet.

As regards access to quality drugs at affordable prices, apart from the price control and monitoring initiative, the Government proposes to further expand the Jan Aushadhi Scheme started in the 11th Plan with the objective of making available unbranded generic medicines at affordable prices through the proposed 3000 dedicated outlets across the country. The 12th Plan document has supported the revised business plan of the Jan Aushadhi Scheme which has been prepared after a detailed analysis of shortfalls and possible solutions including special focus on supply chain management. Finally, the Department of Pharmaceuticals has not been able to take up or launch any major new activity in line with its mandate even after three years of its existence. The main reason for this lies in lack of technical capability since its inception.

Therefore, there is an urgent need of strengthen the Department in terms of required human resources. For this, support of a technical cadre has been proposed. It is expected that going forward in the 12th Plan, the Department would be able to play a vital catalytic role in spurring the growth of the pharmaceutical industry in the country and strengthen it to become a global leader in the comity of nations in the global economy.