

**CHAPTER I**

**INTRODUCTION**

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#### **BACKGROUND OF THE STUDY:**

The foundation of modern Indian pharmaceutical industry was laid in the beginning of the last century when in 1901, a small factory known as Bengal Chemical and Pharmaceutical Works, was established in Calcutta. Though the two world wars gave fillip to the development of the industry the progress made under the British rule was insignificant. The country depended largely on the United Kingdom, France and Germany for its requirements of drugs and medicines<sup>1</sup>. The Indian Pharmaceutical Industry today is in the front rank of India's science-based industries with wide ranging capabilities in the complex field of drug manufacture and technology. It ranks very high in the Third World, in terms of technology, quality and range of medicines manufactured.

Indian pharmaceutical industry manufactures bulk drugs belonging to several major therapeutic groups requiring various manufacturing process and has developed excellent facilities for production of all dosage forms like tablets, capsules, liquids, orals, injectables etc. This achievement is strengthened by an assurance with regard to quality of the products. Despite rigid and dual control by the government with respect to pricing of bulk drugs and formulations and the profitability of the producing enterprises, the Indian drugs and pharmaceutical industry has grown significantly, though not sufficiently, since independence.<sup>2</sup>

The Indian market has some unique advantages. India has a fifty three-year-old democracy. It has an educated work force and English is widely used. It has a sound legal framework and healthy financial markets. Professional services are easily available. There is already an established international industry and business community. It has a good network of world-class educational institutions and established strengths in information technology. The country is now committed to a free market economy and globalisation. Above all, it has a 70-million middle class market which is continuously growing. For the first time in many years the international pharmaceutical industry is finding great opportunities in India. The process of consolidation which has become a generalised phenomenon in the world of pharmaceutical industry, has started taking place in India. The pharmaceutical industry, with its rich scientific talents and research capabilities, supported by Intellectual Property Protection regime, is well set to make its place as a Sunrise Industry.

Today, India is in a position to meet 80% of the country's requirement of bulk drugs and almost all demands for formulations. The setting up of Penicillin factory at Pimpri, Pune in the early 1950s and the construction of Indian Drugs and Pharmaceuticals Ltd. (IDPL) plants at Rishkesh and Hyderabad in the 1960s are important milestones in the history of the pharmaceutical industry in the country. Public sector investment in the pharmaceuticals industry in the initial stages played the role of a catalyst in the development of the industry.<sup>3</sup>

## **STRUCTURE OF INDUSTRY:**

The pharmaceutical industry consists of three sectors namely, the government owned public sector, private sector and foreign sector<sup>4</sup>. The relatively large-scale units in the organised sector number about 250 including six FERA companies and the five units in the public sector. The organised sector units account for 70% of industry's total value of production<sup>5</sup>.

The indigenous production of formulations was very small at the time of Independence. It was mere Rs. 35 crores in 1952 then it picked up after Drugs Price Control Order (DPCO) 1970, and increased to Rs. 380 crores in 1973-74, but after DPCO 1979, the growth of pharmaceuticals slowed down. Again, after DPCO, 1987 provided the necessary fillip to the industry and the output of formulation spurted to Rs. 2350 crores in 1987-88. Thereafter it was Rs. 3420 crores in 1989-90 and increased to Rs. 10494 crores in 1996-97 and reached to Rs. 13878 crores in 1998-99<sup>6</sup>.

Production of bulk drugs was non-existent at the time of Independence and was merely worth Rs.15 crores in 1962. It increased to Rs. 200 crores in 1978-79 and to Rs. 416 crores in 1985-86. After DPCO 1987 even the production of the bulk drugs received a boost and it went up to Rs. 640 crores in 1989-90 and to a very high level of Rs. 3148 crores in 1998-99<sup>7</sup>.

However, increase in population and increasing affordability of a section of population, higher incidence of certain diseases due to a higher degree of environmental pollution and government emphasis on health programs led to a faster expansion in the demand for drug formulations which jumped four times during the decade of eighties

and is expected to witness a further fourfold increase over 1990 level by the end of the century<sup>8</sup>.

The number of units producing pharmaceuticals has increased from 1752 in 1952-53 to 5156 in 1979-80. Thereafter it rose to more than three times to 16000 in 1989-90 and finally reached 20053 in 1998-99<sup>9</sup>.

Presently the pharmaceutical industry is not only producing for domestic consumption but it is also exporting both to the developed and developing countries. Total export increased from Rs. 46.38 crores in 1980-81 to Rs. 664.70 crores in 1989-90 and then to Rs. 2265.60 crores in 1994-95. Thereafter it significantly increased to Rs. 5959 crores in 1998-99. As compared to imports, exports increased at a faster rate hence India is a net exporter of the pharmaceutical products. Imports were Rs. 112.54 crores in 1980-81 which increased to Rs. 652.12 crores in 1989-90. Thereafter it increased to Rs. 1368.72 crores in 1994-95 and finally reached Rs. 3128 crores in 1998-99. The analysis clearly reveals that during 1980s India was a net importer, but the trend reversed during 1990s and the country became a net exporter of the pharmaceutical products<sup>10</sup>. This had a positive impact on the balance of payment position and foreign exchange reserves of the country.

The pharmaceutical industry is also playing a commendable role in providing employment opportunity in the country. The pharmaceutical industry provided direct employment to over 4.60 lac people comprising various categories of personnel including managerial, technical, skilled and unskilled. The industry provided indirect employment to almost seven times i.e. 28.60 lac in ancillary and distribution trade<sup>11</sup>.

Production of a large amount of bulk drugs and formulation requires large-scale investments in the industry. The investment in industry was Rs. 225 crores in 1973 which increased to Rs. 800 crores in 1988. It further increased to Rs. 2500 crores in 1999<sup>12</sup>. Almost all major nations with their well-developed pharmaceutical industry participated in one form or another in this massive development of the industry in India. Thus we have units with American, British, Swiss, German, French, Dutch, Italian, Japanese collaboration. This is because medicines and diseases know no national boundaries. The pharmaceutical industry is truly international in character<sup>13</sup>.

The pharmaceutical industry is primarily research based innovative industry<sup>14</sup>. Research and Development expenditure was Rs. 10.50 crores in 1976-77 increased to Rs. 125 crores in 1993-94 and further increased to Rs. 260 crores in 1998-99. The amount of Research and development expenditure incurred as a percentage of sales by the industry worked out to 2%. The amount of the expenditure incurred by this industry was high as compared to other industry. Research and Development expenditure as a percentage of Gross National Product in India is 0.44% as against 3.4% in U.S.A., 2.3% in U.K., 1.6% in France, 1.5% in Japan and 1% in Canada. As compared to these developed countries our research and development expenditure would appear to be very small<sup>15</sup>.

As per OPPI annual report, the amount of annual per capita drug expenditure in India was one of the lowest in the world. The amount of per capita expenditure was the highest in Japan at US \$ 412 followed by Germany at US \$ 222 and USA at US \$ 91. While India had per capita drug expenditure of US \$ 3 p.a<sup>16</sup>.

As per 7<sup>th</sup> Five Year Plan the total demand by 1989-90 of bulk drugs and formulations was estimated to be to the tune of Rs. 1033 crores and Rs. 3775 crores respectively<sup>17</sup>. The actual production throughout the 6<sup>th</sup> and 7<sup>th</sup> plan period falls short of demand for bulk drug and formulation. The Ninth Five-Year Plan projected bulk drug and formulations production for the year ending 2000-01 at Rs. 5439 crores and Rs. 21104 crores respectively. Further projection was made regarding investments in the industry of Rs. 2,800 crores and investments in research and development of Rs. 1,400 crores in the year 2000-01<sup>18</sup>.

Though India has emerged as the largest producer among the developing countries, its share in world production is still insignificant at 1.6% though it accounts for 15% of the world's population<sup>19</sup>.

The pharmaceutical industry occupies an important place not only in the industrial sector but also in the overall economic development of India. The study of working capital behaviour occupies an important place in financial management. It has never received so much attention as in recent years. This study is an attempt at throwing light on the problems of the working capital management of selected pharmaceutical companies of Maharashtra State. The rationale of the study is brought out in the following section.

## **RATIONALE OF THE STUDY:**

A reasonable rate of return on investment and a good reputation in the business world can be identified as two meaningful criteria for viewing the efficiency of a business enterprise. In earning a reasonable return, the working capital plays a vital role<sup>20</sup>. It is therefore important on the part of management to pay particular attention to the planning and control of working capital. Working capital may be regarded as the life-line of business; its effective provision can do much to ensure the success of a business, while its inefficient management can lead not only to a decline in profits but also to an ultimate downfall of the concern. A deeper understanding of the importance of working capital management and its satisfactory provision can assist in cost savings and maximising financial return on the minimum capital employed<sup>21</sup>. The rationale of the study is emphasised by the fact that the manner of management of working capital determines the success or failure of the operation of a business<sup>22</sup>. Surveys indicate that the largest portion of a financial manager's time is devoted to day-to-day internal operations of the firm i.e. working capital management<sup>23</sup>.

A number of research studies have been undertaken by many researchers on different industries highlighting the different aspects of working capital management. The studies carried by them includes, study on the working capital management<sup>24</sup>, materials management<sup>25</sup>, problems in inventory management<sup>26</sup>, finance function in relation to materials management<sup>27</sup>, the quality of trade credit<sup>28</sup>, credit control and company finances<sup>29</sup>, management decision for cash and marketable securities<sup>30</sup>, financing working capital<sup>31</sup>, working capital policy<sup>32</sup>, inflation and working capital management<sup>33</sup>, structure of



working capital<sup>34</sup>, working capital requirement and availability of bank credit<sup>35</sup>, trade credit and their significance<sup>36</sup>, cash planning and management<sup>37</sup> etc..

It is evident from the above studies and studies briefly reviewed in Chapter II that there is a dearth of research attempting to interpret the problems of working capital management in the pharmaceutical industry in Maharashtra State. Not a single doctoral study concerning working capital management has been undertaken in detail, though number of small studies have been carried out in this regard. Moreover, it is believed that a study on the problems of working capital and its efficiency should be limited to specific industries located in homogenous territory. It is likely that working capital problem of a large and small companies would be different. Hence only large companies were selected as sample units.

The present study viz. “Problems of Working Capital Management of Selected Pharmaceutical Companies of Maharashtra State” is based on the aforementioned arguments as well as the review of related literature and research. The present research is therefore significant and relevant to the study of pharmaceutical companies.

## **STATEMENT OF THE PROBLEM:**

The present study is titled “Problems of Working Capital Management of Selected Pharmaceutical Companies of Maharashtra State.”

In order to clarify the Statement, it is necessary to define important terms used in the Statement of the problem.

The term “Working Capital” refers to the total current assets of the pharmaceutical companies during a particular period of time. Current assets are the assets which can be converted into cash within an accounting year. These are represented mainly by cash balances, accounts receivable, loans and advances and inventories. Inventories includes raw materials, semi finished goods, finished goods and stores & spares in the pharmaceutical companies.

The term “working capital management” implies the determination of the requirements of working capital, financing the requirements, and efficient utilisation of working capital in the pharmaceutical companies.

“ A Pharmaceutical Company” means a company having more than 50% of production of bulk drugs and formulation and having its registered office in the Maharashtra State.

A study on the working capital management is mainly related to the adequacy of inventories, receivables, cash and bank balances and working finance in the pharmaceutical companies during the period under study.

## **OBJECTIVES OF THE STUDY:**

The present study proposes to examine the policies prevailing in the management of working capital in the pharmaceutical company in the State of Maharashtra and to examine management performance in this sphere and also to look at possible remedial measures on the basis of which funds tied up in working capital could be used efficiently and effectively.

The specific objectives of the study are as follows:

- 1) To analyse and evaluate working capital management policies of the selected Pharmaceutical Companies in the Maharashtra State during the period from 1989-90 to 1998-1999.
- 2) To examine the structure and financing policies of working capital.
- 3) To evaluate the management of inventory, receivable and cash performances.
- 4) To suggest, on the basis of the study, a better management of working capital in pharmaceutical companies in the Maharashtra State.

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

The present research limits itself to the study of working capital management of large drugs and pharmaceutical companies of the Maharashtra State.

In the present study the analysis is mainly based on secondary data given in the annual audited balance sheets, profit and loss accounts and directors' and auditors' reports of the pharmaceutical companies. The other data used for comparing the results of pharmaceutical companies are taken from various journals and periodicals. The limitations prevailing in the secondary published sources are self evident in this study. The limitations of the secondary published sources for the purpose of analysis are well known. Despite their weaknesses, they continue to be the only source for comparison of the results of the analysis.

Another limitation is regarding the size of the sample. In the present study, out of 41 companies having their registered office as public limited companies in the State of Maharashtra on or before 1989-90, only 13 pharmaceutical companies are selected on the basis of judgement sampling method. The rest of the companies are not included in the sample either due to non-availability of data or their size being small.

Another limitation of the study is that the selected companies do not follow a uniform accounting year. The accounting year followed by some of them is financial year, some follow calendar year while some of them follow June ending accounting year. So, 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. The present study is carried out taking into consideration these limitations.

## **CHAPTER SCHEME OF THE STUDY:**

This thesis comprises of the following six chapters:

Chapter **One** is an introductory chapter which includes details such as introduction, rationale of the study, specification of the problem, objectives of the study, limitations of the study and the chapter scheme of study.

The **Second** chapter reviews related literature and research.

The **Third** chapter is devoted to conceptual and contextual analysis of the theory of working capital management to present a techno-academic base. It includes the concepts of working capital and working capital management, structure of working capital, factors affecting working capital, financing of working capital, planning and

control of working capital and the operational definition of related terms and concepts followed in the study.

The **Fourth** chapter deals with the methodology followed in the study, i.e. selection of sample, sources of data and their collections, methods of analysis and statistical techniques used and specific ratios followed.

The **Fifth** chapter deals with the analysis and interpretation of the data. It is divided into five sections.

Section 1 Inventory Management

Section 2 Receivables Management

Section 3 Cash Management

Section 4 Financing of Working Capital Management

Section 5 Working Capital Management

The **Sixth** chapter presents the findings, conclusions, suggestions and recommendations for further research.

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