

## CHAPTER - I

### AN INTRODUCTION TO THIS STUDY

#### 1.1 Definitions of the Scope of Financial Management

In corporate management, the most vital and critical area involves the management of corporate capital. As money is only a medium of exchange and is a surrogate for the real resources of an economy, it is obvious that the basic concern of financial management or money management ought to be with getting the best out of the resources deployed within the corporate firm. These resources are men, money, machines, materials and methods. All these are inputs from which the outputs (goods and services) of enterprise are derived, and are commanded through a single resource, namely, money. Therefore, one of the most crucial managerial tasks within a corporation is financial management. Effective financial management results in securing the greatest possible return from every unit of capital deployed within the firm.

At higher levels of corporate management, almost every decision becomes a financial decision. "Decisions taken on production, marketing, personnel and industrial relations have financial implications, which in turn affect the profitability of the enterprise"<sup>1</sup>. Financial Management may thus be defined as "the managerial activity which is concerned with the planning and controlling of the firm's financial resources"<sup>2</sup>. Howard & Upton define financial management as "that administrative function in an organisation which has to do with the management of flow of cash so that the organisation will have the means to carry out its objectives as satisfactorily as possible and at the same time meet its obligations as they become due"<sup>3</sup>.

Financial Management involves the resolution of the three major decisions, namely an investment (or asset-mix) decision; a financing (or capital-mix) decision and a dividend (or profit-allocation) decision. Capital investment, which is a major aspect of this coordinated decision, is the allocation of capital to investment proposals whose benefits are to be realized in the future. In making the second major managerial decision i.e. the financing decision, the financial manager is concerned with the determining the financing mix or capital structure of the corporate firm. The dividend decision decides the proportion of earnings to be paid to stockholders as cash dividends, the stability of absolute dividends about a trend, stock dividends and splits, and repurchase of stock.

To quote Ezra Solomon, "...the function of financial management is to review and control decisions to commit or recommit funds to new or ongoing uses. Thus, in addition to raising funds, financial management is directly concerned with production, marketing and other functions within an enterprise whenever decisions are made about the acquisition or distribution of assets"<sup>4</sup>. Standard approaches to the scope and functions of financial management may be grouped into two broad variants:

- i) the 'Traditional' approach, and
- ii) the 'Modern' approach

The traditional approach to financial management functions makes reference to subject-matter classed under it in the academic literature at the initial stages of its evolution as a separate branch of academic study. The approach thus confines the scope of financial management and the role of the financial manager to the raising of corporate funds.

The modern approach alternatively views financial management in its broader sense and provides a conceptual and analytical framework to financial decision-making. According to this, the finance function covers both acquisition of funds and their allocation. "In this broader view, the central issue of financial policy is the wise use of funds, and the central process involved is a rational matching of advantages of potential uses against the cost of alternative potential sources so as to achieve the broad financial goals which an enterprise sets for itself"<sup>5</sup>. Financial management is seen to be considered here as a vital and integral component of overall corporate management.

In summary, it might be remarked that effective financial management is a *sine qua non* for any organisation, irrespective of size, nature of ownership and control and of whether it is a manufacturing or service organisation. For the achievement of success in the complex business environments of the present day, a sound knowledge and understanding of financial management principles has become essential to managerial executives. When and if the matters relating to the important areas within financial management are neglected, overall corporate results are adversely affected.

Ports are in no way an exception to the above observation. They are giant enterprises, usually organised along trust-lines, rather than corporate lines, but except for this exception, are engaged in providing saleable services to sea and riverine transport, for which vast prior infrastructural investment has been necessary, and for the continuance of which a continuous expenditure of men, materials and methods is essential. Effective financial management thus becomes a must in case of ports too, in order to provide them the sound financial base which would enable the port administration to maintain all port facilities at high technical and operating levels, and to render efficient and economically-viable services to port-users. Thus the ultimate consequence of sound financial management in ports is increased volume of trade, increase in the export of goods, and opening up of future development opportunities by the goods in question becoming more competitive and attractive to international markets.

## 1.2 The Maritime Geography of India

An assessment of the maritime geographical position of India would be relevant to any detailed study in context of the ports in India. Since early ages, the barriers of high mountains and large oceans stemmed external aggression and formed natural boundaries for a country. Nevertheless, the existence of an ocean barrier also brought the peoples of the world together through commercial and cultural contacts, and through the wars inevitable to history. The development of commerce in any nation has depended on foreign trade. This, in turn, has been primarily dependent on the development of sea transportation, because of its economy compared to any other mode of transportation. India's geographical position affords natural advantages for attaining maritime dominance. India, as a maritime country, is a peninsula surrounded by a vast expanse of seas, and considers the sea as vital to its landmass.

The strategic geographical position of the Indian subcontinent on the world's maritime map is obvious. From its vantage point in peninsular South Asia, India overlooks the expanse of the Arabian Sea, the Indian Ocean and the Bay of Bengal, which is crisscrossed by numerous shipping routes

between the Middle East and Africa in the west, and South East Asia and Australasia in the east. The geographical configuration of the Indian Ocean itself lends it prominence in the southern hemisphere. It washes the major part of the African East Coast to one side, and the Indonesian archipelagoes and Australia to the other, lapping the shores of 30 littoral nations and stretching far south to the Antarctic, while forming a confluence with the Arabian Sea and the Bay of Bengal to the north. The Arabian Sea touches the coastlines of western peninsular India, Pakistan, Iran, and the countries of the Arab Middle East, and is traversed by oceanic routes which are nearly 3000 years old. The Bay of Bengal which lies between eastern coastal India, Bangladesh, Burma, Malaysia and Singapore, and the Straits of Malacca leading to the archipelagoes, has played an important part in the penetration by colonial power into the East and Far East. The fact of the Indian Ocean being the only ocean in the world that is named after a country, is a historical indicator of Indian mercantile predominance over this ocean.

Geography thus places India in a favourable situation. Of all oceans in the world, the Indian Ocean is the most 'land-locked'. The location of India in this oceanic expanse favours international commerce as well as foreign relations. India thus has great potential to develop through maritime trade and transportation. The gateways to this i.e. the ports of India, form a focus for the present study.

### 1.3 Major, Intermediate & Minor Ports

The operational classification of ports in India is based on their degree of importance from the national point of view. Presently, 11 ports are classified as *major ports* in India, 23 as *intermediate ports* and 141 as *minor ports*<sup>6</sup>.

Article 364(2)(a) of the Constitution of the Republic of India defines a major port as "a port declared to be a major port by or under any law made by Parliament or any existing law and includes all areas for the time being included within the limits of such port". A port may be declared as a major port under provisions of Section 3(8) of the Indian Ports Act (1908). No specific criteria which would entitle a port to be regarded as a major port are laid down by the said Article, except that a port so declared comes under the directly responsibility of the Union Government for its development. According to the Ports (*Technical*) Committee of India (1948) however, facilities at a major port should include an all-weather sheltered harbour, modern berths which can take alongside steamers of at least 9.14 metre draft, as also direct road and rail linkages with the port-hinterland<sup>7</sup>.

A quantitative sub-classification of ports, under the category of minor ports, has been suggested by Nanjundiah (1951)<sup>8</sup>. Under this, ports handling an annual cargo-volume of 1 lakh (=100,000) tonnes or more, or ports that are otherwise important, could be classed as intermediate ports. Other ports with annual cargo-volumes below this figure but not below 1500 tonnes, or those which were important for other reasons such as passenger amenities, customs or naval requirements, etc., could be classed as minor ports. The remaining ports would be classed as 'sub-ports' or 'petty-ports'. Cargo tonnages of 5 lakh tonnes *per annum* should be the minimum requisite volume that would entitle an intermediate port for consideration of development into a major port.

### 1.4 The Major Ports of India & their Historical Background

Major Ports in India have developed over a long sequence of time. Some of them started

as riverine wharfwages or natural harbours that later grew into importance with the growth of trade. Some of them were established by intent as a part of Government's maritime and economic policy. The chronological development of these ports is briefly examined below.

The ports of Bombay, Calcutta and Madras came into existence during the rule of the East India Company<sup>9</sup>. These ports were governed by individual Acts, i.e. the Bombay Port Trust Act (1879), the Calcutta Port Trust Act (1890) and Madras Port Trust Act (1905). In 1921, they were declared Major Ports. Visakhapatnam and Cochin ports joined them as Major Ports *vide* similar declarations in 1925 and 1936, respectively.

At the time of Indian Independence, major ports in the country were in a poor and dilapidated state because of intensive overuse, lack of proper maintenance and inadequacy of port-assets during the wartime period when they were of considerable importance to the eastern theatre of World War II. The port of Karachi which had to a large extent served the needs of the hinterland areas now covered by the states of Punjab, Haryana, Jammu & Kashmir, Rajasthan, Uttar Pradesh, Madhya Pradesh and Gujarat, had now become a part of Pakistan. The major ports remaining in India i.e. those at Calcutta, Bombay, Madras, Cochin and Visakhapatnam were not in a position to cope with the existing traffic volume. To correct this imbalance, port development received continuous attention in determination of intersectoral investment allocations by the Government of India, with the object of meeting an evergrowing demand for port facilities.

At the commencement of the First Five-Year Plan in 1951, there were only five major ports sited at Calcutta, Bombay, Madras, Visakhapatnam and Cochin. Over the planning period since, new major ports have been developed at Kandla, Mormugao, Paradip, Mangalore, Tuticorin and Nhava-Sheva.

Before declaration as a major port, Kandla was a small port in the erstwhile state of Kutch, built largely for handling the export of (sea) salt to Calcutta. With the loss of Karachi to Pakistan in 1947 the need was keenly felt for a major port in this area to serve the growing requirements of northern India. Construction at Kandla Port commenced in 1952 and, with the construction of four deepwater berths together with ancillary structures, was completed in 1957. By 1959 the Port was fully equipped with requisite facilities and uplinked by metre-gauge railway to enable transportation of cargo to the North Indian States. The rail-link was upgraded to broad-gauge in 1969. Mormugao was declared a major port in 1963, after liberation of Goa from Portuguese control. This port which is a natural harbour permitting access to the navigable waters of Mandovi and Zuari rivers, had been historically important to the institution and development of Portuguese trade with India.

There was no port of any consequence along the long eastern stretch of coastline between Calcutta and Visakhapatnam of 840 kilometres till the construction of Paradip Port in 1962. Construction at Paradip was initially started by the state government of Orissa. Subsequently, the Government of India declared Paradip a major port in 1965 and took over. The Port was commissioned in 1966. New Mangalore and Tuticorin, with newly-constructed harbours and modern facilities, were declared as major ports in 1974, and opened to traffic in 1975.

Because of the upriver character of Calcutta Port, a search had been on in the 50s, for a suitable location for a port down the estuary of the Hooghly river which would not have problems of navigability and would provide adequate draft for large vessels. Haldia, situated nearer the sea and 104 kilometres downriver from Calcutta, did not suffer these constraints and was commissioned in 1977,

after the construction of harbour facilities, as an integral part of Calcutta Port. The Nhava-Sheva Port Trust was constituted by the Government of India in 1982, which sanctioned construction of the new port. This port, which became the eleventh major port of India, was inaugurated in 1989 and is now known as Jawaharlal Nehru Port.

### 1.5 Major Ports over the Planning Period

Economic development in independent India started through the plan process. An integrated framework for allround development of the country through the Five-Year Plans. Within the transport sector, the plan related the development of ports and shipping to growth patterns in imports and exports. Basic infrastructure at the ports was to be planned in keeping with the requirements of overseas traffic. Thus, for an appreciation of the present position of ports in India, this growth and interrelation should be studied since the inception of the First Five-Year Plan.

The main emphasis over the first two plans (1951-56 & 1956-61) was on rehabilitation and modernisation of existing facilities at the major ports and augmentation of their berthing capacities<sup>11</sup>. Despite such efforts, the ports remained substandard in many respects. Draft limitations, for example, precluded handling of modern bulk carriers and tankers, the size of which had grown beyond the drafts available at ports. Loading and unloading operations were still manual in nature, as the ports were not equipped with mechanical facilities. All this caused unnecessary delays to shipping, and mounted congestion at the ports.

To improve port conditions and bring relief to portusers, concerted effort was made in the Third Plan (1961-66) to create new capacity and modernise existing facilities<sup>12</sup>. The effort included modernisation and expansion of Bombay Port, construction of a deep-draft port at Haldia to serve as a satellite to the port at Calcutta, and the development of Mangalore and Tuticorin into major ports. Emphasis on improvement of port facilities continued to be a priority in the formulation of the three subsequent Annual Plans (between 1966-69) which, accordingly, incorporated development of a number of port projects, including the Madras Outer Harbour Project for handling large-sized oil tankers and ore carriers, Visakhapatnam Outer Harbour Project for handling iron ore, and dredging of the main harbour channel at Bombay Port.

The programme for port development in the Fourth Plan (1969-74) focused mainly on completion of ongoing projects, particularly the Haldia Dock, expansion of cargo-handling capacities at Tuticorin, Mangalore, and the outer harbours of Visakhapatnam and Madras, and improvement of ore handling facilities at Paradip and Mormugao<sup>13</sup>. Two new items added to the port development programme were the establishment of a Central Dredging Organisation to build dredging capabilities, and river training works within the Bhagirathi-Hooghly river system, with a view to optimising benefits from the Farakka Barrage. The main emphasis in the formulation of the Fifth Plan (1974-79) was again on completion of ongoing schemes. The few new schemes undertaken during this period, which included the replacement of oil pipelines at Bombay, an offshore terminal project at Salaya to meet the requirements of transporting crude from the Bombay High offshore oilfield to the Mathura and Koyali refineries, development of facilities at New Mangalore Port for the Kudremukh Iron Ore Project that had been established in a tie-up with Iran.

Two port projects reached completion over the Fifth Plan period<sup>14</sup>. The outer harbours at Madras and Visakhapatnam were commissioned, although the high-speed mechanical iron ore handling

plant had not yet become fully operational. Secondly, the Haldia Dock System was launched into operation in March 1977, for handling coal and iron ore traffic. Work was still in progress on installation of mechanical fertilizer-handling facilities at the fertilizer berth, development of a jetty for handling salt and sulphur, and of a berth for container traffic. At Cochin, the first phase of a programme for providing handling facilities for container traffic was completed and container ships started calling at the port.

In the Sixth Plan (1980-85), the main emphasis was to be on completion of facilities like warehouses and wharfbages to allow for optimal capacity utilization<sup>15</sup>. Priority was given to development of container-handling facilities to meet the growing needs of container traffic. At Haldia, a full-fledged container berth was already in existence. Construction of a new container berth was proposed at Visakhapatnam Port. Provision was also made for acquisition of container-handling equipment for Bombay, Madras, Cochin, Visakhapatnam, Kandla, Paradip, Mangalore and Tuticorin ports. Ship-to-shore gantries were to be provided at Bombay and Cochin ports on the West Coast, and Haldia and Madras ports on the East Coast. At other ports, a limited number of containers would be handled by shore cranes/forklifts and chassis.

Important schemes completed over the Seventh Plan (1985-90) included a general cargo berth at Kandla, augmentation of container-handling equipment at Cochin, multi-purpose berthing at Mormugao, construction of the outer arm and an oil jetty at Madras and provision of dredging equipment, and additional handling equipment at Bombay. A general cargo berth and a fertilizer berth was added at Paradip, and two general cargo berths were provided at New Mangalore. In Visakhapatnam, handling and dredging equipment was augmented, along with the construction of a general-cum-bulk cargo berth, an oil berth, and the crude oil discharge system at its outer harbour.<sup>16</sup> The current Eighth Plan (1992-97) expects to see completion of schemes sanctioned in the Seventh Plan, which including augmented container-handling facilities at Calcutta, Madras and Cochin, new cargo berthing at Kandla, jetties at Haldia and Mormugao and a warehouse at Haji Bunder in Bombay.<sup>17</sup>

In reviewing the planned development at major ports, evidence is found that government had realised the seriousness of their predicament. Government allocations to port development over the plan period have shown a rising trend, as is borne out until the Sixth Plan by the data below:

<i>Period</i>	<i>Plan Funding</i>
1st Plan (1950-55)	Rs.26.32 crores
2nd Plan (1956-61)	Rs.45.50 crores
3rd Plan (1961-66)	Rs.92.95 crores
<i>Interregnum (1966-69) Annual Plans</i>	
4th Plan (1969-74)	Rs.280.00 crores
5th Plan (1974-79)	Rs.308.00 crores
6th Plan (1980-85)	Rs.600.00 crores
<i>(1 crore = 100,00,000)</i>	

### 1.6 Administration & Management in Port Undertakings

The administration of a port is responsible for efficient port operations, proper maintenance and upkeep of port property, optimum phasing of port improvement, and task allotments to port labour<sup>18</sup>. There is wide variation over the world in regard to the practice of ownership and management of ports in the world. Ports in West Asian countries like Syria, Kuwait and Iran are owned and operated

by their respective governments. Ports in the United States are owned and operated by category by the Federal and State Governments, and by local port authorities, municipalities, rail and road corporations and private corporations. In the United Kingdom, ports are owned by public authorities, municipalities or private companies. The mode of private corporate ownership does not exist in India, where major ports are administered under Acts of Parliament.

Under these, port administration in a major port is carried out by a Trust headed by a Chairman (and a Deputy Chairman, if necessary), consisting of trustees representing various interests appointed by Government, not more than 19 other trustees in case of Calcutta, Bombay and Madras Ports, and not more than 17 for the remainder.<sup>19</sup> The trustees are holders of either official or non-official positions. Official trustees represent departmental interests, for example, of the Customs and Railways. Non-official trustees generally represent trade, shipowners and labour. A representative of the Union Ministry of Shipping & Transport has also been appointed since 1980.

Almost all major interests are represented on the port trusts, in recognition that their coordinated effort is essential to fulfil national objectives. In accordance with the statutes governing major ports, all questions relating to the port trust are decided by majority vote of the trustees present. Financial matters under the Port Trust Acts require concurrent approval of the Union Government. Planning of operations and development in major ports is conducted by the Union Ministry of Shipping & Transport on the basis of plans drawn up by port trusts and in consultation with organisations like the Planning Commission, National Development Council, and the Union Ministries of Commerce and Finance, etc. Each Port Trust Board is required to be reconstituted every three years.

## 1.7 Administrative Frame

### 1.7.1 The Board of Trustees

Major ports in India are administered by port trusts which are autonomous bodies. While the Major Port Trust Act (1963) empowers the Union Government to constitute a Board of Trustees for each major port, intermediate and minor ports come under the administrative responsibility of the respective governments of the state or Union territory.

The Board of Trustees of Calcutta Port has 19 members. The Chairman who is executive-head of the Port is appointed by the Government of India. The Chairman heads the Board with two Deputy Chairmen, one of whom is posted at Calcutta and the other at Haldia. Besides the executive trustees, other *ex officio* members of the Board represent the Government of West Bengal (the Transport Secretary), the Union Ministry of Surface Transport (the Joint Secretary - Ports), the (Naval) Defence Services (the Naval Officer-in-charge at Calcutta), the Customs Department (the Collector of Customs), the South Eastern Railway (the Chief Operating Superintendent). Public corporations represented on the Board are the Indianoil Corporation (by the General Manager), Shipping Corporation of India (by the Regional General Manager), and the Central Inland Water Transport Corporation Indian Road Construction Corporation (by their Chairmen-cum-Managing Directors). These 12 members of the Board are called 'Official representatives'.

The other 7 members additional to these are 'non-Official representatives'. Three representatives are drawn from the three Chambers of Commerce, one representative each from the All India Shippers Council and the Association of Shipping Interests. Two remaining members represent the

labour unions - one from the National Union of Waterfront Workers of India (NUWWI), which is affiliated to the Indian National Trade Union Congress (INTUC), and the other from Calcutta Port Shore Mazdoor Union (CPSMU) affiliated to the Centre of Indian Trade Unions (CITU).

The tenure of the Board of Trustees is three years and vacancies occurring mid-term are filled only for the duration of the unexpired term of the Board. The Board is responsible for all work to be done for smooth running of the port. Its principal responsibilities are maintenance of the navigability of shipping channels, and conservancy and lighting of the harbour. The Board is also responsible for efficient functioning of the railway system owned and operated by Port authorities to provide rail facilities for cargo movements within the port area.

As a public body, the Port Trust generally follows the Government rules relevant to service conditions. Administrative matters are usually decided by majority vote of the Trustees present at the Board meeting convened for the purpose. In its financial aspect, the Board is empowered to receive grants from government, to raise loans in the open market and to fix charge rates and fees for various port services rendered by the Port. The Major Port Trusts Act does not provide any guidelines relating to the rates charged, costs incurred or returns on capital. The Port Trust is however statutorily required to receive prior Government approval for its annual budget and also to submit its annual report to Government. Annual accounts of the Port of Calcutta are subject to audit by the Comptroller and Auditor General of India (CAG).

### 1.7.2 Organisation

Day-to-day administration of the port is carried out through various departments, as shown in the administrative flowchart below. The Port of Calcutta has 14 departments. Fourteen Heads of Departments are in charge at corporate level at the Calcutta Port Trust headquarters, but are concerned primarily with the Calcutta Dock System. Below the resident Deputy Chairman at the Haldia Dock Complex, there are two General Managers - one for Operations and the other for Management & General Services. There are 8 divisions under them.

The Administration Department, headed by the Secretary, coordinates the work of all other departments, convenes meetings of the Board of Trustees, records proceedings of these meetings and conveys all Board decisions to the departments concerned. It also looks after policy matters, and personnel, security etc. The Finance Department which deals with financial planning, financial management, compilation and presentation of accounts, internal audit, costing and management accounting is under the Financial Adviser & Chief Accounts Officer (FACAO). The Marine Department, headed by the Director (DMD), is responsible for pilotage, dredging, port conservancy and fire services. The Traffic Department, under the Traffic Manager (TM), handles all matters relating to the receipt, storage, and loading and unloading of cargo, port railway operations, and also commercial matters. There are two engineering departments under civil and mechanical disciplines. The Civil Engineering Department headed by the Chief Engineer (CE) is responsible for all civil works at the port. The Mechanical Engineering Department under the Chief Mechanical Engineer (CME) is responsible for the upkeep of cargo-handling equipment, electrical lock-gates and railway locomotives, and for the maintenance of more than 100 port-vessels.

Advice regarding the navigability of river channels, and on the need for dredging and river training emanates from the Hydraulic Engineering Department under the Chief Hydraulic Engineer (CHE). The Medical Department headed by the Chief Medical Officer (CMO) looks after health and

medical services. The Materials Management Department has the Chief Materials Manager (CMM) as its head and oversees stocks at the port. The functions of the Research and Planning Department headed by its Director are to provide management-related services comprising the management information system, port statistics, project formulation, evaluation monitoring, forecasting and traffic analyses, trade promotion activities and electronic data processing. Other port departments are headed by the Land Manager (LM), Legal Adviser (LA), Labour Adviser & Industrial Relations Officer (LAIRO) and Chief Vigilance Officer (CVO).

## 1.8 A Review of the Literature

This review of literature spans three broad areas relevant to the proposed study. The first is literature pertaining to financial management, particularly in the public sector, which is the broad area of focus for the present study. The second is literature specific to ports and harbours, where the principles of financial management are applied. The third is literature relating to the role of ports in the economic development of the country. These are dealt with below.

### 1.8.1 Literature on Financial Management

Financial management is an area of considerable research interest in India, because of the dominance of the public sector within large-scale enterprise in the Indian mixed economy. An indicative survey of the broad areas encompassed by this research reveals that it has focused on the aspects of corporate financial behaviour, capital structure planning, capital budgeting, management of working capital, financial management of public sector undertakings (PSUs) and financial management in general.

#### 1.8.1(i) *Corporate Financial Behaviour:*

Annual surveys of finances within Indian joint-stock companies are regularly published by the Reserve Bank of India. The Department of Company Affairs of the Government of India publishes bi-monthly studies on financial performance of large public and private limited companies. Chaudhary(1962) is an analysis of such statements, undertaken as doctoral research, the analysis being directed to judge their performance. A number of studies, such as Jain(1969), Kaura & Subrahmanyam(1979), and Chakraborty & Reddy(1973), focus specifically on financial performance. Jain(1969) is an analytical study of financial performance of the cement companies in Indian environment, and was also undertaken as doctoral research. Financial performance of selected cement companies in India has also been analysed in the Kaura & Subrahmanyam study, which also encompasses a 'inter-firm comparison' based on the 'cause and effect' approach. Comparison at inter-firm level is also made in the study by Chakraborty & Reddy, using standard financial ratios as diagnostic tools. For the private sector, a financial study at corporate level is found in Saxena(1968), which is on the Delhi Cloth & General Mills Ltd. Studies on the appropriateness of methodologies for financial analysis constitute another sub-group; examples are Chakraborty(1966), and Rajagopalan(1968), which are evaluations of financial statements. Both analyse the limitations of financial statements through the use of financial ratios and other tools. Sharma & Rao(1976) is of the opinion that general assessment of financial soundness is inaccurate, if based on individual financial ratios in isolation; a multivariate approach is used instead to test corporate failure.

Although the studies reviewed above assess financial performance of different Indian companies with the help of financial ratios and other financial tools, none apply these ratios to the case of major ports in India. The present study thus involves the ratio analysis in judging financial performance and profitability of selected Indian major ports.

#### 1.8.1(ii) *Capital Structure Planning:*

Capitalisation of enterprises is the next area of focus, in view of the bearing this has on scale of operations, as well as on performance and financial soundness. Capital structure planning includes valuation of shares on offer, as well as dividend policies governing distribution of profits. An example of studies on these aspects is Sharma & Hanumantharao(1969), where the applicability of the Modigliani & Miller Hypothesis has been tested over 30 engineering companies and an analysis also made of the influence of debt on the value of the firm. Another example is Singh(1981) where analysis is made of debt-equity ratios in the Indian corporate sector and the dependence of the Indian corporate sector on debt-capital is brought out. Venkataraman *et al*(1981) also deals with valuation in relation to debt-equity ratios in the Indian corporate sector. Finance of companies and company debt is studied in Garg(1981). Mishra(1969) is a study of the financing of new companies, undertaken as doctoral research. Agarwal(1969) discusses the requirements of finance for expansion of a company and the sources of such finance. Sharma & Murthy(1981) considers the role of specialised financial institutions as being pertinent. Kohli(1969) considers as a paradigm, the optimisation of capital structure within corporate enterprise. Batra(1980) is a study of the above financial features, contextual to the tyre-industry.

The above studies are found to have mainly discussed capital structure planning and the sources of finance, and especially the debt-equity ratios, which are deemed less important in the context of the present study. The present study thus mainly focuses on money management and is, in this respect, quite different to any of the above studies.

#### 1.8.1(iii) *Capital Budgeting:*

Considering capital in term of its constituents, a number of research studies consider allocational aspects of the same, within the framework of capital budgeting and investment analysis. Kennedy(1965) lays down the broad parameters of project evaluation and an analytical description of the steps involved in the capital-budgeting process. Musa(1966) discusses techniques of ascertaining profitability of investment proposals which are in common use, and introduces the concept of net terminal value as an aid to optimum decision-making. Ananthan(1983) considers problems of investment appraisal when an inflationary situation is prevalent, postulating that some modification of ordinary capital budgeting procedures is necessary in such a case. Swami(1983) also explores aspects of capital budgeting techniques in the special context of inflation, where some modifications in standard appraisal of capital-budgeting proposals are suggested. Roy & Chaudhari(1982) is concerned with modelling the capital-budgeting procedure. The use of quantitative methods in decision making in capital budgeting and investment plans has been discussed in Barot(1966).

Capital budgeting processes and investment analysis are seen to have been the general focal area of the above studies This is accorded less importance by the present study, in which the areas of capital-budgeting and investment are discussed very pointedly.

#### 1.8.1(iv) *Management of Working Capital:*

In addition to physical assets and capital resources, there are operational aspects of per-

formance within corporate enterprise which entail optimality in the management of working capital. Agarwal(1967) is a doctoral study of industrial finance in India over an extended time-frame, with particular emphasis on working capital needs. Working capital management is also the subject of Agarwal(1981) and Chari(1982). Chari considers ways of managing working capital more efficiently. Problems encountered in working-capital management in service units and loss-making units are the subject of Bhattacharyya(1982) and Bhattacharyya(1983), where integrated approaches to working-capital management are suggested. Chakraborty(1973) considers the concept of operating cycles as useful to improving the management of working capital. A case-study of the problem, in the context of the Rajasthan State Trading Corporation, is made in Mathur & Mishra(1979), using techniques of financial and statistical analysis to measure efficiency of working-capital management. Cash management in a developing economy has been discussed in the study of Singh & Kaupisch(1970).

Management of working capital is the only subject of discussion in the above studies. The present study excludes the context, since inefficient management of working capital is not the reason behind the poor performance of Calcutta-Haldia Port.

#### 1.8.1(v) *Financial Management in Public Undertakings:*

Studies specific to public sector undertakings also exist. Ramanadhan(1963) studies financial problems within PSUs, relating their financial organisation to pricing and profit criteria, and to their profitability. Chattopadhyay(1982) studies these aspects *vis-a-vis* corporate capitalisation. Grewal(1972) analyses the relevance of financial management techniques to PSUs. Murty & Prasad(1981) reviews structural changes in sources and uses of funds in PSUs over an extended time-frame, suggesting ways of improving internal fund-generation and proper utilisation of external funds for the future. Bhattacharyya(1968) suggests guidelines for financial appraisal of PSUs, while Nigam(1967) applies appraisal-techniques to assess financial performance. Investment decisions within PSUs are the subject of Raj(1977), Rao & Sarma(1982), and Sanyal(1982), which lay down desiderata for investment planning and analyse PSU-investment in the light of these. Rao & Sarma further discusses special features of capital financing in public enterprises.

A number of case-studies, e.g. Rao(1979) and Naidu(1980) exist, which apply financial analysis to specific PSUs. Rao undertakes a sample-study of Tamilnadu State Enterprises with regard to their finances. Naidu analyses the social obligations and finances of the Andhra Pradesh State Electricity Board.

Emphases on financial management in the PSUs is contextually quite inappropriate for a study of Indian major ports. The motive of the PSU is to earn a profit, while the principal motive of a major port is to render services to port-users, for economic development of the hinterland as well as the country. The above studies have all stressed improvement of financial management of PSUs with the object of making them profit-oriented. The main object of the present study is, on the other hand, to analyse weaknesses in the financial management of Indian major ports and to suggest remedies which would ensure that these problems are overcome and these ports earn the minimum rate of return recommended by the Major Ports Commission (1970).

#### 1.8.1(vi) *Financial Management in General*

As financial management remains the main area of focus for the present study, a number of studies on general procedures of financial management have been explored. Some of these are Kuchhal(1977), Raj(1978), Kulkarni(1981), and Khan & Jain(1981) which are source-works for the

entire spectrum of financial management procedures, particularly as applicable to PSUs in India, and cover the relevant financial tools and strategies for managerial decisions. The study by Kuchhal is aimed at evolving a coordinated approach to financial management. Raj makes a lucid presentation of the basic concepts and techniques of modern corporate financial management in an Indian context. Kulkarni formulates a conceptual approach to financial management. Khan & Jain covers the theme of financial management in the three interrelated financial areas of investment, financing and dividend policy, and also tools important to financial planning and management, such as funds-flow, cash-flow and ratio analysis. Contributions to the literature on financial management in general are also made by Ramachandran(1972), Murty(1978), Ramamurty(1978) and Pandey(1979). Ramachandran discusses the financial planning and control system. Murty mainly studies the management of finances. Working-capital management is the main focus of study in Ramamurty, while Pandey analyses financial problems and interprets the data that make for good financial decisions. The study last-named contains a comprehensive treatment of capital budgeting, capital structure and dividend decisions, along with working-capital management. Other studies such as Van Horne(1985), Gupta & Radhaswamy(1987), Chandra(1993), and Banerjee(1994) formulate general principles of financial management with the help of ratio-analysis and other numerical tools.

The present study also uses ratio-analyses in evaluating the financial management of selected major ports in India.

### 1.8.2 Literature on Ports & Harbours

It is surprising to observe, however, that there have not been any studies exclusively on the financial management of Calcutta Port, which is the research context for the present study. Studies on the Port and on other major ports have a prolonged history. Some of the committees appointed by Government to address wage-revision in ports, e.g. the Chowdhury Committee (1957), the Central Wage Board for Port & Dock Workers (1969), and the Lokur Committee (1977), did discuss port finances in their Reports, but were neither exhaustive nor purposeful in their comment. The Major Ports Commission (1970) made a comprehensive study for the first time in India, of all aspects of integrated working and development of major ports. But this study insofar as it pertains to financial management is only partial, with some of the important aspects which can influence the very quality of financial management being dealt with only in summary. The Reports thus do not reach useful conclusions.

The literature on ports and harbours reviewed as preliminary to the present study may be divided into two sub-parts: namely, literature on Calcutta-Haldia Port, and literature on ports other than Calcutta-Haldia Port.

#### 1.8.2(i) Literature on Calcutta-Haldia Port:

It may be noted that the existing literature on this Port is not adequate to a study of the research problem. The first impression that one gets from a review of port literature is that port studies have been a relatively neglected branch in Indian economic literature. In fact, adequate material on Calcutta Port, particularly in book-form, was not available till the mid-60s. The first-known history of the Port in Mukherjee(1912) was followed by Mukherjee(1968) on the same lines, extending the review of historical growth of the Port. Banerjee(1975) presents an economic history of the Port over the period from 1833 to 1900. These books apart, there are important research reports presented by official committees, such as the Report of the Haldia Study Team (1965) and the Report of the Study Groups

on the Utilization of Port Facilities (1965), which had surveyed different aspects of traffic development and traffic-potential of major ports, including Calcutta-Haldia. Functional aspects of the optimum utilization of the Calcutta-Haldia port complex have been discussed in a study by the Calcutta Port Trust commissioned in 1976.

Dasgupta & Bierson(1987), and Ray(1993) are surveys of the maritime history of Indian ports, and consider within them, the historical aspects of the development of Calcutta Port. Haldia has been separately studied in Ghosal(1979). The historical account of the development of the bulk commodity-handling terminal at Haldia has also been studied in the paper. Although the institution of this port is relatively recent, the port overcomes drawbacks arising from the tortuous upriver passage to Calcutta Port, by offering bulk-handling facilities to the same hinterland.

A number of studies, both by expert bodies and individual scholars, have focused on operational features of the two ports. The Haldia Study Team Report (1965) and the Calcutta Port Trust report (1976) are among the former, which aim at a prescription of means to achieve optimum utilisation of port facilities. Proceedings of a seminar organised by the Indian Chamber of Commerce at Calcutta in 1980, address the same problem analytically. Background papers, namely ICC(1980) and Bose (1980) explore the technological, physical, institutional and managerial limitations that feature in the decline of port traffic. Demand factors - which include economic conditions of the hinterland of the Port and of the world - as well as policy-variables like the transport policy of the Government of India find main emphasis in the paper by Bose. However, Majumdar(1980) and Sau(1980) are of the view that the decline of the port is not explainable entirely by technological factors, and economic reasons predominate. This point of view is further echoed in Sau(1984) where analytical discussion is made about the problems confronting Calcutta Port. Sau(1989) addresses problems of dredging and maintaining the shipping channel down-river to Haldia. An analysis of economic factors limiting the volume of cargo handled by the Port has also been made in the study. Sau(1990) investigates factors leading to the decline in the importance of this Port relative to other major ports in India and to underutilisation of its capacity. Putatunda(1980) considers the need to improve managerial efficiency in ports. Ghosh(1992) is a simulation-study of port turn-around time as applied to Calcutta Port, relating improved profitability to the need for increasing efficiency of loading operations. Turn-around time of a ship, which is the duration of detention time from a ship's arrival at port to its sailing again, is discussed in further detail later in the present study.

Keeping in mind that the ports of Calcutta and Haldia are contiguous, offer mutually complementary services, and are components of a single port administration, the effort in the present study will be to study the two ports within a unified study-frame, rather than individually, as most previous studies have accomplished.

#### 1.8.2(ii) *Literature on Ports other than Calcutta-Haldia Port:*

Besides the studies above which specifically address the context of Calcutta-Haldia Port, an extensive literature spans port planning and management, both in theoretical and empirical aspect, e.g. Bown(1967), Paston & Rees(1972), Nagorski(1972), Goss(1977), Nair(1977), Bennathan & Walters(1979), Atkins(1983) and Bandelaire(1986). The studies of Bown and Goss analyse the economics of port operations. Port expenditures are analysed and the demand for port facilities is discussed in Paston & Rees. The principles of port planning and organisation and also problems faced by ports in developing countries are the main area of focus in the study of Nagorski. Nair emphasises appropriate accounting and costing procedures for sea ports and suggested guidelines in his study. Procedures which

determine port prices in developed countries are explored by Bennathan & Walters. Matters relating to modern maritime terminal operations and their management are studied by Atkins in the case of the port of Oakland. Bandelaire covers port administration and management in Tokyo Port in his study. In the Indian context, Rao(1987) investigates the financial management factor in case of Visakhapatnam Port. Other ports in India are covered by descriptive studies such as Batra(1970) and Batra(1974), Kurani(1984a), Kurani(1984b), and Sahai(1986), which are reviewed below.

### 1.8.3 Literature on the Economic Role of Ports

Apart from studies on financial management and general discussion on ports and harbours, a specialised literature is also to be found some literatures which emphasises the role played by ports in the economic development of port-hinterlands and of the country. Some of the associated studies are reviewed below.

Sahai(1986) describes the historical background of the ports of India, examining their economic role. The contribution to economic development made by the port of Bombay, and by other major and other ports in India, is studied by Batra(1967), Batra(1970) and Batra(1974). Kurani(1984a) and Kurani(1984b) also examine services rendered by ports situated on the east coast and west coast of India, respectively, and analyse statistical data on their performance. Mukherjee(1968), earlier-mentioned, also explores the importance of Calcutta Port to the economic development of the Eastern India. Patra(1988) reflects on the bearing that ports situated in the State of Orissa have had on the economic development of that state. The history of Mormugao Port along with its functions and its contribution to economic development in Goa has been studied in Pereira(1978). The studies by Sau earlier-mentioned make the same reflections in context of Calcutta Port. Paston & Rees(1972), earlier-mentioned, states that a lowering of port costs accompanied by expansion of port facilities attracts port-users, and leads to the development of trade and commerce of the port-region. Oram & Baker(1971) shows that hinterland-development follows the development of the port provided the port can be efficiently operated. Condit(1981) provides an overview of the port of New York and indicates the part played by this port on the economic development of its service-region. Schwimmer & Amundsen(1973) relate development of a sea port and its hinterland to proper port-management.

Reviewing the above studies, it becomes apparent that while some studies hold physical, institutional, technological and managerial problems as mainly responsible for the poor port-performance at Calcutta, others assign this responsibility mainly to economic and policy considerations. No existing study explores financial management problems in Calcutta Port as a factor to poor performance. The study to be made here thus covers this unresearched problem, in an endeavour to show that sound financial management is more primary to any other factor that has found mention in the literature reviewed above, if the performance of Calcutta-Haldia Port is to be improved.

### 1.9 The Present Study

Effective financial management results in securing the greatest possible return from every unit of capital deployed within the firm. Financial Management deals with the planning and controlling of financial resources through resolution of three major decisions: namely the investment (or asset-mix) decision; the financing (or capital-mix) decision and the dividend (or profit-allocation) decision. Finan-

cial management is also directly concerned with production, marketing and other functions whenever decisions are made about the acquisition or distribution of assets. The traditional approach the scope of this to the raising of corporate funds. The modern approach takes a more broad-based view of financial management, thus covering both acquisition of funds and their allocation. Overall corporate results are adversely affected, without sound understanding of financial management principles.

Ports are in no way an exception, since they provide saleable services for which vast prior infrastructural investment has been necessary. Effective financial management thus becomes a must to ensuring that they can maintain all port facilities at high technical and operating levels at all times. India, as a maritime country, is a peninsula surrounded by a vast expanse of seas, and considers the sea as vital to its landmass. The location of India in this oceanic expanse favours international commerce as well as foreign relations. India thus has great potential to develop through maritime trade and transportation. The ports of India form a focus for the present study. Of these, 11 ports are presently classified as major ports in India, 23 as intermediate ports and 141 as minor ports.

Article 364(2)(a) of the Constitution of the Republic of India defines a major port as "a port declared to be a major port by or under any law made by Parliament or any existing law and includes all areas for the time being included within the limits of such port". The ports of Bombay, Calcutta and Madras which came into existence during the rule of the East India were declared Major Ports in 1921. Visakhapatnam and Cochin ports joined them as Major Ports in 1925 and 1936. At the commencement of the First Five-Year Plan in 1951, these were the only major ports in India. Over the planning period since, new major ports have been developed at Kandla, Mormugao, Paradip, Mangalore, Tuticorin and Nhava-Sheva. Nhava-Sheva Port is now known as Jawaharlal Nehru Port. The Haldia Dock Complex which was commissioned in 1977 is an integral part of Calcutta Port. Administration in a major port is carried out by a Port Trust composed of trustees appointed by the Government representing various interests. The Port of Calcutta has 14 departments, based primarily with CDS. The HDCC has 8 divisions.

Initial emphasis in port development in India was on rehabilitation and modernisation of existing facilities at the major ports and augmentation of their berthing capacities. Thereafter, efforts were made to create new capacity and modernise existing facilities, followed by an emphasis on improvement in auxiliary facilities and technology to allow for optimal capacity utilization.

Financial management, particularly in the public sector, is the broad area of focus for the present study. Because of the dominance of the public sector within large-scale enterprise in the Indian mixed economy, the literature has focused on the aspects of corporate financial behaviour, capital structure planning, capital budgeting, management of working capital, financial management of public sector undertakings (PSUs) and financial management in general. There have not been any studies exclusive to financial management of Calcutta Port, which is the research context for the present study, and although some Committee Reports do discuss port finances, these are neither exhaustive nor purposeful in their comment.

The second area concerns the application of principles of financial management to the functioning of ports and harbours. Existing literature on CHP is not adequate to a study of the research problem, although a number of studies, both by expert bodies and individual scholars, have focused on operational features. Besides studies which specifically address the context of Calcutta-Haldia Port, a third area in the literature spans both theoretical and empirical aspects of port planning and management, and the role played by ports in the economic development of port-hinterlands and of the country.

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Reviewing the above studies, it becomes apparent that while some cite physical, institutional, technological and managerial problems as being mainly responsible for poor port-performance at Calcutta, others assign this responsibility to economic and policy considerations. No study exists, which explores financial management problems as a factor to poor performance at CHP. The study made here covers this unresearched problem, and endeavours to show that sound financial management is more primary to any other factor finding mention in the literature, to improved performance of CHP.

The ports of Calcutta and Haldia are contiguous, offer mutually complementary services, and are components of a single port administration. Therefore the present study will consider the two ports within a unified study-frame, rather than individually, as was done in most previous studies. The study is executed over eight chapters, of which the first is introductory. Chapter 2 discusses definitions of the Finance Function and applications of this in the context of financial management at CHP. The third chapter considers historically, the development of CDS and HDC, which now together comprise the Calcutta-Haldia Port. Chapter 4 analyses information available from the Port and other secondary sources on acquisition and allocation of funds, on capital assets, investment, and capital-structure planning at CHP. Chapter 5 considers features relating to cost and revenue structures and categories at CHP, including the distinction between operating and non-operating costs and revenues. The analysis expands into the relationship between port costs and port revenues, which is the focus in Chapter 6. An informed assessment of the operational performance and profitability at CHP, including physical performance variables, can then be made in Chapter 7, basing itself on the preceding chapters. Chapter 8 integrates the summary and conclusions obtained by the present study.

With the understanding of the problem-context, namely the major ports of India of which the Calcutta-Haldia Port is a prime example, the study now passes on the problem itself by studying Financial Management, its methods and implications.

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