CHAPTER III

RESEARCH METHODOLOGY

The scope of this dissertation is to make a comparative study of the performances of some of the lease financing companies in West Bengal. This will entail looking at the working results and profits that the companies are making from their leasing operations. To achieve these goals, the data of the concerned companies were collected from their published annual reports. A brief note on the general characteristics of the sampled area has been presented here.

3.1 GENERAL CHARACTERISTICS OF THE SAMPLED AREA, WEST BENGAL

West Bengal is one of the most important states in eastern India. From south to north the state extends from $21^\circ 38'\ N$ to $27^\circ 10'\ N$ and from east to west from $85^\circ 58'\ E$ to $89^\circ 50'\ E$. It is bounded on the north by the Himalayas and on the south, it is bordered by the Bay of Bengal. In the east Bangladesh, Assam and in the west Nepal, Bihar are Orissa demarcate the boundary. It is criss – crossed by many rivers and its physical features are largely shaped by those rivers (Ganga, Teesta, Damodar, Rupnarayan...
etc.). It has an area of 88752 sq. kms. As per 2001 census (2.6 percent of the total Indian area). The climate of West Bengal is of the tropical monsoon type. The rainfall varies considerably from one part of the State to another. Similarly, there is a variation in the temperatures also. According to 2001 census, the total population of West Bengal was 8,02,21,171. In 2001, density of population was 904 persons per sq.km$^3$. This is the most densely populated state in India.

West Bengal is a leading industrial state in India. Despite the relative decline since the early sixties it still manages to hold an important place in industries. West Bengal Industrial Development Corporation (WBIDC), West Bengal Infrastructure Development Finance Corporation (WBIDFC) etc. are trying to create an atmosphere conducive to further industrialization in the state.

3.2 SOME KEY DEFINITIONS AND CRITERIA USED FOR ANALYSIS OF FINANCIAL DATA

(i) "Lease Income" includes lease rentals, accrued lease rentals, lease management fee, interest on lease advance and others.

(ii) 'Fee based Income' represents the total of income from project advisory services and custodial services like assistance in obtaining
necessary approval from regulatory bodies, benefit collection, valuation of portfolio etc. and brokerage services.

(iii) ‘Operating Income’ arises from the main operations or business of the firm. It includes lease income, fee based income and other fund based income like income from hire-purchase etc.

(iv) ‘Profit Before Tax (PBT)’ is the difference between profit before interest and tax and interest costs. PBT may also include non-operating profit (viz., non-operating revenue minus non-operating expenses.).

(v) ‘Earnings Before Interest & Tax (EBIT)’ is the difference between gross profit and operating expenses consisting of general and administrative, selling expenses and depreciation. Note that interest costs on borrowed funds are not subtracted. EBIT may also be known as operating profit. EBIT measures the performance of the firm’s operations without regard to the sources of financing (i.e., debt or equity) and may include other incomes.\(^4\)

(vi) ‘Profit After Tax (PAT)’ is the difference between profit before tax (PBT) and provision for tax & provision for deferred tax.
(vii) 'Gross Fixed Assets (GFA) or Gross Block' is used to represent the original cost of total fixed assets. When accumulated depreciation is subtracted from the gross fixed assets / gross block, the difference is called the net fixed assets or net block.

(viii) 'Total Assets' include net fixed assets or net block, investments, current assets (like, stock in trade, cash & bank balance, receivables, advances & loans to corporate bodies and group & associate companies) and miscellaneous expenses.

(ix) 'Reserve & Surplus' is the difference between the total earnings to date and the total amount of dividends to date. It represents total undistributed earnings. Undistributed earnings (reserve) may be earmarked for some specific purpose, such as replacement or debenture redemption. Reserves which are not earmarked are called free reserves. It should be realized that the amount of retained earnings shown in the balance sheet does not indicate anything about the ways in which it has been appropriated in the business.

(x) 'Net Worth / Proprietors' Equity' : 'Net Worth' denotes the difference between the book value of all assets and outside liabilities. The term net worth is used for the sum of share capital and reserve & surplus
i.e., proprietors' / owners' equity. ‘Proprietors’ / Owners’ Equity is referred to as shareholders’ equity or shareholders’ funds. Proprietors’ Equity has two parts: (i) paid up share capital and (ii) reserve and surplus (retained earnings) – representing undistributed profits.

(xi) ‘Share Capital’ comprises paid up equity & preference share capital. Paid up share capital is the amount of funds directly contributed by shareholders.

(xii) ‘Long-Term Debt’ represents the obligations or debt payable in a period of time greater than the accounting period i.e., borrowings for a long period of time. They include debentures bonds, secured long-term loans (mortgages) from financial institutions, fixed deposits, commercial papers and loan from corporate bodies.

(xiii) ‘Capital Employed’ means total capital including loan from outsiders but excluding trading assets. In other words, it means the total of net fixed assets (i.e., gross fixed assets less depreciation) and working capital (i.e., current assets less current liabilities). Taking the liabilities side, it would include share capital, both equity and preference, reserves and debentures less non-trading and fictitious assets.
3.3 PERIOD OF THE STUDY

The period of this study covers the financial years from 1995-1996 to 2000-2001 (year ended March 31st). The reasons for selection of this period are:

(i) high rate of growth of leasing industry in post-liberalisation period; and

(ii) availability of financial data.

3.4 SAMPLE SIZE

All public limited lease financing companies in West Bengal in the private sector comprise the population of the study. The main criteria for selection of units are: (i) registered office in Kolkata; (ii) listed in Calcutta Stock Exchange and (iii) operating in West Bengal.

There are 22 lease financing companies operating in West Bengal in the private sector. For the purpose of this study, all the 22 companies were approached to provide their annual reports for the above-mentioned accounting years. Altogether 14 companies finally responded by supplying their annual reports for those accounting years. Thus, the effective sample has become 14 companies (sample size), representing 64% of the population and in terms of capital employed it represents around 69%.

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3.5 SOURCES OF DATA

The study has been confined to public limited lease financing companies in West Bengal in the private sector.

The study is both exploratory and empirical in nature. The exploratory part deals with the traditional and various recently - developed conceptual issues relating to lease financing, lease evaluation and reporting techniques followed by lease financing companies in West Bengal. Review of accounting standards on lease prevailing in the major countries of the world (including India), along with accounting standard issued by the International Accounting Standard Board (IASB) and their comparative analysis have also been made in this part. For this exploratory part, the researcher has drawn heavily on the available literature (i.e., articles, books, reports, documents, periodicals, magazines, dailies, weeklies and RBI Bulletins) in this field and the relevant Accounting Standards issued abroad and in India by the standard setting bodies.

For the purpose of the empirical study, i.e., performance evaluation of the selected lease financing companies in West Bengal, the researcher has relied mainly on published annual reports of selected lease financing companies in West Bengal and records available with the operating
agencies like Equipment Leasing Association (India) [ELA (I)] or The Registrar of Companies etc. The other secondary sources of information, like publications of the Reserve Bank of India, Calcutta Stock Exchange and research output of individual researchers connected with different segments of the study have been used.

3.6 TOOLS AND TECHNIQUES OF ANALYSIS

In the empirical part, overall performance of the lease financing companies in West Bengal was evaluated by the researcher by analysing:

(a) Consolidated profit and loss for six years;

(b) selected key parameters;

(c) growth rate of leased assets and lease income;

(d) profitability / margin ratios;

(e) return ratios and

(f) indicator ratios.

Also an attempt was made to study the Return on Lease (ROL) of the selected units. ROL has been calculated in the following way:

\[
\text{ROL} = \frac{\text{Lease Income}}{\text{Leased Assets}} \times 100
\]

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3.6.1 LIST OF SELECTED KEY PARAMETERS

(i) Lease Income  (ii) Fee based Income  (iii) Other Income
(iv) Operating Income  (v) Interest Costs  (vi) Depreciation
(vii) Profit Before Depreciation & Tax (PBDT)
(viii) Profit Before Tax (PBT) (ix) Earnings Before Interest & Tax
      (EBIT) (x) Profit After Tax (PAT)
(xi) Gross Fixed Assets (GFA) (xii) Leased Assets
(xiii) Current Assets (xiv) Total Assets (xv) Share Capital
(xvi) Reserve & Surplus (xvii) Networth / Proprietors’ Equity
(xviii) Long-term Debt (xix) Capital Employed
(xx) Current Liabilities.

3.6.2 GROWTH RATE

Growth rates (%) are calculated in the following way:

\[
\frac{Year_1 - Year_0}{Year_0} \times 100
\]

Growth rates (%) are calculated on following items:

(a) Leased Assets  (b) Lease Income
3.6.3 LIST OF SELECTED KEY RATIOS

(1) Profitability / Margin Ratios (%): 9

\[
PBDT = \frac{\text{PBDT}}{\text{Operating Income}} \times 100
\]

\[
\text{PAT} = \frac{\text{PAT}}{\text{Operating Income}} \times 100
\]

(2) Return Ratios (%): 10

(a) Return on Net Worth

\[
\text{PAT} = \frac{\text{PAT}}{\text{Net Worth}} \times 100
\]

(b) Return on Total Assets (RTA)

\[
\text{EBIT} = \frac{\text{EBIT}}{\text{Total Assets}} \times 100
\]

\[
\text{PBT} = \frac{\text{PBT}}{\text{Total Assets}} \times 100
\]

(c) Return on Gross Fixed Assets

\[
\text{PBT} = \frac{\text{PBT}}{\text{Gross Fixed Assets}} \times 100
\]

(d) Return on Investment (ROI)

\[
\text{EBIT} = \frac{\text{EBIT}}{\text{Capital Employed}} \times 100
\]
(3) Indicator Ratios: 

(a) Capital Structure Indicator

\[
\text{Debt Equity Ratio} = \frac{\text{Long Term Debt}}{\text{Proprietors' equity}}
\]

(b) Solvency Indicator

\[
\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}
\]

(c) Operating Efficiency Indicator

\[
\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest Costs}}
\]

(d) Productivity Indicator

\[
\text{Return on Total Resources} = \frac{\text{Operating Income}}{\text{Total Assets}}
\]

The relevant data available from the annual reports of the sample companies have been tabulated, processed and analysed keeping the objectives of the study in mind. Based on such analysis, meaningful inferences have been drawn. The empirical findings of the survey have been presented in detail in chapter seven.
3.7 REFERENCES


