

# **CHAPTER ONE**



# **RESEARCH DESIGN**

### 1.1 INTRODUCTION:

'Agriculture' is the key to the economic development of the Third World countries. In India, nearly 50 percent of the national income is derived from agricultural sector. Agriculture also is a means of livelihood for nearly two-thirds of the country's population. By and by, the nation's industrial growth has also come to be closely linked with agriculture. Consequently, if the economic development of the country is to be speeded up, agricultural practices have to be raised from their traditionality to a higher technological plane. The exercise includes provision of better irrigation facilities, use of better quality seeds and chemical fertilizers. Particularly, the chemical fertilizers are very, very important.

In India, the use of chemical fertilizers for enhancing agricultural production started only around the end of the 19TH century. By the beginning of the 20th century, production of fertilizers had already begun. But the fertilizer industry, as such, could develop much later and could make spectacular progress only after the country's attaining the Independence, when purposive outlays for the development of agriculture and support infrastructure could be provided in Five Year Plans. As a result, in latter years, the industry took rapid strides because of the increasing consumption and production. Even after Independence, there were substantial imports of fertilizers to meet the growing domestic requirements. Today, the fertilizer industry occupies the second position among the major industries in India. Globally also,

India enjoys fourth position as regards the consumption and production of nitrogenous fertilizers. Likewise, the country's consumption and production of phosphatic fertilizers ranks tenth and thirteenth, respectively; while the consumption of potassic fertilizers ranks eleventh.

#### 1.2 STATEMENT OF PROBLEM:

The present study is an attempt to analyze the financial performance of select fertilizer production units in the country. It has also been attempted to take an overview of the Government's policy towards fertilizer pricing as it has wider ramifications in the agricultural produce pricing and eventually, on the national economy. Accordingly, the present work has been titled as "A STUDY OF FINANCIAL PERFORMANCE IN SELECTED UNITS IN FERTILIZER INDUSTRY".

#### 1.3 OBJECTIVES OF THE STUDY:

The present study has been undertaken with the following specific objectives:

1. To take an overview of the fertilizer industry in India;
2. To study and examine the financial performance of select fertilizer manufacturing units during the period 1892 to 1991;
3. To come out with concrete conclusions regarding the fertilizer industry, based on the study conducted.

#### 1.4 THE STUDY UNIVERSE:

For the purpose of the present study, the following six large and reputed fertilizer manufacturing units in the country were taken up for their detailed financial analysis:

1. Fertilizers and Chemicals Travancore Limited (FACT),
2. Zuari Agro Chemicals Limited (ZACL),
3. Gujarat State Fertilizers Company Limited (GSFC),
4. Mangalore Chemicals and Fertilizers Limited (MCFL),
5. Coromandel Fertilizers Limited (CFL),
6. Southern Petrochemical Industries Corporation Limited (SPIC).

The chronological age, volume of business, manufacturing range as also the geographical location of these units differ considerably from each other and hence, these have been presumed to represent the country's fertilizer industry, as a whole.

#### 1.5 DATA COLLECTION:

The present research work is based exclusively on the **secondary data**, that is, published financial statements of the abovementioned six companies for a period of ten years (1982-1991). The data source used for the purpose was the 'The Stock Exchange Directory', assuring a degree of authenticity and reliability to the data collected. The analysis of these financial statements was conducted with the help of the established financial-analysis procedures, which themselves were gleaned from bibliographic sources. Equal reliance was also placed on popular, journalistic and academic press to secure an insight into the microcosm of the fertilizer industry as also the Government's policy towards it.

### 1.6 SCOPE OF THE STUDY:

The historical scope of the present study has been kept limited to a period of ten years (1982-1991), while the functional scope has been confined to fulfilling the objectives taken up for the study. The analytical scope of the study takes within its fold the exercise of analyzing the sampled companies' financial statements against the following 14 (fourteen) financial ratios:

- |                                   |                                 |
|-----------------------------------|---------------------------------|
| 1. Current Ratio,                 | 8. Total Assets Turnover Ratio, |
| 2. Liquid Ratio,                  | 9. Fixed Assets Turnover Ratio, |
| 3. Debt:Equity Ratio,             | 10. Current Assets Ratio,       |
| 4. Solvency Ratio,                | 11. Gross Profit Ratio,         |
| 5. Inventory Turnover Ratio,      | 12. Net Profit Ratio,           |
| 6. Debtors Turnover Ratio,        | 13. Return on Total Capital     |
| 7. Working Capital Turnover Ratio | Employed,                       |
|                                   | 14. Net Profit to Total Assets  |
|                                   | Ratio.                          |

In addition, an exercise into the trend analysis in respect of the following has also been undertaken:

1. Share Capital,
2. Net Worth,
3. Total Assets,
4. Fixed Assets,
5. Current Assets,
6. Inventory,
7. Sundry Debtors,
8. Sundry Creditors,
9. Current Liabilities.

### 1.7 SIGNIFICANCE OF THE STUDY:

In our country's agro-based economy, the fertilizer industry plays an important role. Hence, in the present study, an overview of this industry has been incorporated as a necessary feature. An analysis of the financial statements of select fertilizer manufacturing companies has been undertaken with a view to evaluate their performance.

#### 1.8 LIMITATIONS OF THE STUDY:

1. The study is entirely based on the secondary data, i.e. the financial statements published by the sample fertilizer units. The data used thus is likely to have suffered manipulation and window dressing.
2. The techniques of Trend Percentages and Ratio Analysis used for the present study have imposed certain other limitations, e.g.
  - (a) changes in fertilizers selling prices could not be considered;
  - (b) ratios worked out with historical data may not always truly reflect the present situation;
  - (c) quite often, the information available through the financial statements was found to be inadequate.

#### 1.9 CHAPTER SCHEME:

The Dissertation is divided into Six Chapters as follows:

Chapter-1	: Research Design
Chapter-2	: Fertilizer Industry in India - An Overview
Chapter-3	: Profile of Sample Units
Chapter-4	: Theoretical Background
Chapter-5	: Data Analysis and Interpretation
Chapter-6	: Observations and Conclusions.

A select Bibliography concludes the Dissertation.

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