A STUDY OF MARKETING CONTROL SYSTEMS OF PUBLIC SECTOR FERTILISER INDUSTRY

THESIS
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ABSTRACT

Control is an essential managerial function for all organised activities. Its applicability is valid for people, things, situations and in all functional areas of the organisation with a basic purpose of assuring that all corporate resources are being used in the most effective and efficient way possible. Marketing by its very nature is so vital to the organisation that its performance is reflected on the achievement of the organisation. But by chance or design control could not get as much attention in marketing management as in production and finance. But when application of control in marketing started, the established control practices and techniques of production and finance could get a way for application in it and very few techniques could be developed specifically for marketing control purposes. There is a general lack of comprehensive framework to determine the ways of evaluating marketing performance.

RESEARCH STUDY

The present work is meant for the study of marketing control systems in public sector fertiliser industry. The selection of the project is due to the importance of control in marketing, chemical fertiliser production and marketing in Indian agriculture and the place of public
sector in fertiliser industry. Evaluation and control of marketing efforts and performance is one of the important responsibilities of marketing management. Chemical fertilisers have been accepted as one of the vital inputs essential for the development of agricultural productivity. The share of production capacity of (nitrogenous and phosphatic fertilisers taken together) with the public sector is 47% and the rest is held by private and co-operative sectors. The public sector fertiliser companies occupy 52% of the total investment in fertiliser industry.

OBJECTIVE OF THE STUDY

A thorough review of literature established this fact that no serious attempt has been made to study the marketing control system in this industry, so with the following specific objectives the study has been conducted.

(1) To study the marketing control practices adopted by the public sector fertiliser industry.

(2) To examine the systems adopted for salesforce control.

(3) To study the application of accounting techniques in marketing control.

(4) To identify the key marketing variables for effective implementation of marketing control.

(5) To investigate the deficiencies in the system for proposing improvement.
SAMPLING PROCEDURE

The samples were drawn from the fertiliser manufacturing units of public sector. Those companies which were not basically engaged in fertiliser production were excluded from the list like Steel Authority of India Ltd., Hindustan Coppers Ltd. etc. Companies meant for design and consultancy in fertiliser industry like Projects and Development India Ltd. were also eliminated. Out of remaining 8 companies, 3 companies producing nitrogenous fertilisers and one producing phosphatic fertilisers were selected for indepth study. Multiple criteria of capacity, profitability, entry into business were considered at the stage of final selection of the companies. The companies thus selected were Fertiliser Corporation of India (FCI), Hindustan Fertilisers Corporation Ltd. (HFC), National Fertilisers Ltd. (NFL) and Pyrites, Phosphate and Chemicals Ltd. (PPCL). These four companies represent 50% of the public sector fertiliser manufacturing units.

DATA COLLECTION

The study is based on primary as well as secondary data. The primary data were collected from these companies with the help of a check list. Detailed discussions were held with the executives at three levels in all the organisation. For marketing control practices and key
variables, interviews were taken from the top level marketing executives at the Corporate headquarters. To have information about salesforce control systems data were collected from Regional or Area Managers and for accounting techniques, executives in Marketing Research, Information Centre, Accounts or finance sections were contacted.

The secondary data were also required for industry profile and fertiliser marketing systems. The important sources of informations were Fertiliser Association of India (FAI), New Delhi, which publishes Fertiliser Statistics. Fertiliser Marketing News, Fertilizer News etc. The annual reports of Ministry of Fertilisers and Chemicals, Government of India, New Delhi, were thoroughly scanned. For company related informations their annual reports were used. Extensive assistance were taken from Public Enterprise Survey, Ministry of Programme Implementation, Government of India, New Delhi.

ANALYSIS AND INTERPRETATION OF THE CASES

In the analysis and interpretation of the data, special care has been taken to discuss the individual company cases separately as per the prespecified framework. It has also been tried to standardise the informations of all the companies and afterwards they have been interpreted in terms of nature of the company. At a stage, all the
case studies have been consolidated to give the vivid picture of marketing control in the industry.

CONTENTS OF THE THESIS

Apart from Introduction which highlights the importance of marketing control, fertiliser industry and public sector in fertiliser industry, in all there are nine chapters. First chapter deals with nature of control in general and marketing control in particular. It further elaborates the components and approaches of marketing control, salesforce control systems and consequences of control.

Second chapter details the review of literature, objectives and framework of the study, sample selection, data collection etc. The third chapter is devoted to fertiliser industry profile and marketing of fertilisers in India in two separate sections. Special treatment has been given to the public sector fertiliser industry, market segmentation, product differentiation, future demand, elements of marketing mix, role of salesforce and changing pattern of marketing costs.

Chapter four to seven are concerned with case studies of four companies namely FCI, HFC, NFL and PPCL respectively. All the chapters have been divided into two
sections. The first section highlights the present status of the company; production, sales and financial performances; and the marketing operations of the respective companies. The second sections deal with case discussion and they are presented as per the framework discussed in chapter II.

Chapter eight analytically studies the cases. This chapter is also divided into two sections. The first section analyses and interprets the individual cases. The second section consolidates these cases to present a clear picture of application of marketing control systems in public sector fertiliser industry.

Last chapter, the ninth, concludes the findings of the study and based on that some recommendations have been made. The chapter ends with a brief outline for future researches in the related areas.

SUMMARISED FINDINGS

The findings of the study are presented briefly under four categories as per the objectives laid down.

Findings related with marketing control practices

1. Marketing control is applied in this industry with the help of annual plans, profitability control and efficiency analysis. Strategic control has got limited application. The application of control vary
among companies depending upon their standing in the market, profit earning and structure of the marketing organisation.

2. Annual plan control is applied with the help of sales analysis, market share and customer's attitude tracking studies. The sales analysis is based on the sales budget of the companies and it is a widely used tool for control. But there are problems in holding monthly meetings in some companies due to financial reporting delays. The scope of corrective action is limited in this industry for want of change in product or market segment.

3. Allocated market share is calculated by most of the companies and they are compared with previous year shares. The trend of shares or normal year share as base is not considered. The corrective action is generally futuristic in nature.

4. Profitability control varies widely among the profit making and loss making companies but they all calculate Gross Profit (loss) and net profit (loss) to sales ratio. Product, regional and seasonal profitability has got limited scope due to the government allocation of market, and regulation of price. Profitability analysis is handicapped due to arbitrary base of determination of functional costs.
5. Efficiency analysis is mostly limited to promotion and distribution and there is wide variation of components, comprehensiveness and corrective action. The components of evaluation varies among established marketing firm and new entrants. On the basis of lifting of fertilisers, the channel and transportation efficiency is evaluated.

6. Strategic control is applied with the help of marketing audit whose application is lacking in the industry. The loss making companies have never opted for marketing audit where the profit making companies have tried this measure in limited sense. Only task environment has been audited.

Findings related with salesforce control systems

1. The application of the concept of territories sales quotas, sales budget and efficiency analysis is common in the public sector fertiliser industry. The territories are designed on the basis of administrative districts or combination of districts. The sales volume quota is comprehensively applied for salesforce control.

2. The sales budgets for salesforce control are annually prepared but the cost and revenue are not linked together for profitability evaluation.
3. Efficiency evaluation for salesforce control takes place with the help of salesforce expenses to sales ratios and responsibilities assigned to them. The responsibility evaluation takes place for promotion, credit collection, reporting, dealer development and warehouse monitoring. The basis of evaluation is almost similar among companies but they vary in comprehensiveness of analysis.

4. There is no application of sales calls for control of salesforce in this industry.

5. The behaviour based evaluation such as resourcefulness, product knowledge, co-operativeness etc. are not considered for salesforce control. Some companies take help of complaint and suggestions of dealers and farmers. Mostly the control is responsibility or outcome based and not behaviour based.

6. Generally the corrective action for salesforce control is negative as for non-performance of salespersons, transfer posting takes place and for star performers, no incentives are available. Retrenchment is uncommon measure in this industry.
Findings related with application of accounting techniques in marketing control and identification of key marketing variables.

1. Ratio analysis, budgetary control and variance analysis are comprehensively used in this industry. Their extent of use also depend upon the types of control systems applied and scope of corrective action.

2. Gross and net profit to sales ratios are the common indicators of profitability in this industry and its application is more comprehensive in profit making companies. For turnover ratios inventory turnover, debtors to sales and average collection periods are calculated. But the trend of these ratios are not considered for evaluation.

3. The application of expense to sales ratios is more extensive as they are guide for controlling costs. Sales promotion, distribution, personal selling and sales administration to sales ratios are used for control of those expenses. Multiplicity of base for evaluation is also evident in case of ratio analysis. Indepth analysis of these experiences is limited to distribution cost only. Market research to sales ratio is not used in this industry for control purposes.
4. Budgets form the basic document for input and output control, where the ratio analysis is a supplementary measure for the purpose.

5. Marketing costs are controlled with the help of advertising and sales promotion budgets, distribution budget, personal selling and sales administration budgets. The review of these budgets vary as per the nature of expenses and the companies. Marketing research budgets are not prepared in most of the cases as the amount spent is very meagre.

6. Variance analysis is limited to volume variance for output control. The price or mix variances are almost of no use in this industry as the prices once fixed continue to be the same for many years.

7. Ratio analysis, budgetary control and variance analysis are systematically blended together in most of the companies under study.

8. Marketing divisions have been considered as the revenue responsibility centre. The zonal, regional and area offices are not evaluated on the basis of responsibility centre concept.

9. The sensitive marketing key variables accepted in this industry, mostly depends upon the immediate marketing problem faced by the company as a whole. Sensitive variables vary widely among the companies like popularization of product in one particular area,
sales and cost control, awareness about the brand etc. They are company specific and not industry specific.

RECOMMENDATIONS

Some recommendations are given for improvement in the marketing control systems.

Recommendations for marketing control practices.

1. The time lag between holding two meetings for sales analysis should be reduced by activating the salesforce and finance section. The regularity of the meeting should be maintained at zonal and divisional level. The meetings should be more frequent during cropping seasons.

2. All the companies should adopt allocated market share evaluation. The trend of market share should be set and any year which the executives consider as standard should be treated as base for evaluation.

3. Customer’s attitude should be studied regularly at the initiative of the company. The customers panel discussion and customer surveys are recommended for profit making companies and complaint and suggestion scheme with the help of salespersons and dealers’ active participation are suggested for the loss making companies.

4. The extensive use of profitability control is recommended for product, zones, area, seasons etc. for
both profit making and loss sustaining companies. The natural costs should be reallocated in terms of functional costs based on some objective criteria.

5. Advertising efficiency and sales promotion efficiency should be analysed for campaign, media, programmes etc. For advertising efficiency some outside consultants should be used. Sales promotion programmes should be evaluated during the programme by the marketing research section of the company. The distribution efficiency should be analysed for channels and mode of transport. A comparative evaluation of one channel over the other should also be undertaken.

6. Independent, comprehensive, systematic and regular marketing audit is suggested for all the companies. The loss making companies can apply marketing audit after a gap of one year but not only in the period of deep crisis.

Recommendations for accounting control techniques in marketing

1. The break-up of profitability ratios should be increased for product, season, region and area offices. The use of turnover ratios should be extended to the regions and area offices.
2. The input cost ratios should be calculated in terms of sales and the individual components in terms of respective categories of expenses. The periodicity of analysis should be increased to make it more supportive.

3. Not only previous period but the trend of ratio should be set and a year or period should be taken as standard for evaluation.

4. The budgets should be prepared separately for personal selling and sales administration expenses and the review of budgets should be on quarterly basis. Marketing research budget should be prepared and the expenses should be reviewed quarterly. The ratio of marketing research to sales should also be calculated for properly supporting the analysis.

5. The concept of performance budget should be introduced for controlling marketing expenses. The basic indicator for converting the expenses should be the actual sales.

6. The marketing division should be treated as profit responsibility centre for evaluation. The control system should be designed on the basis of marketing key variables. The application of budgetary control should be extensive where the priority is given to
input variable and separate performance standard should be considered for output variables.

Suggestions for salesforce control system

1. The sales territories should be determined on the basis of market potential of the area and requirements of fertiliser education among the farmers. It is suggested to analyse the potential on block or tehsil level.

2. The activity quota should be set for non-selling activities which dominate the fertilisers sales job.

3. The expense and revenue elements of the salesforce budget should be linked together for control of profitability rather than only sales and costs separately.

4. The responsibility evaluation should be more broad based. Weightage system may be adopted for evaluation of individual programmes. The reporting should be evaluated on the basis of analytical content of the report. A format should be designed for sales reporting. The role of salesforce in dealer development and warehouse monitoring should be regularly evaluated.

5. The use of sales calls in this industry should be increased. The efficiency of sales calls should be measured from time to time.
6. The salespersons should be evaluated on the basis of resourcefulness, temperament, mannerism, product knowledge, co-operativeness etc. The complaints and suggestions given by the dealers and farmers will be of help in this regards.

7. The corrective action is requiring improvement. The better performers should be duly rewarded in terms of promotion and financial incentives. Those salespersons who are not taking the job seriously, should be retrenched after a specified number of transfer postings.

This is hoped that this research study will be of help to those engaged in fertiliser marketing at the divisional, regional and area office level. Policy makers in the industry may take help of the study. FAI, academicians and researchers may derive benefits from this study. It is also true that the study suffers from some limitations and the findings should be treated with care.
DEDICATED TO
MY PARENTS AND BROTHERS
SALAHUDDIN, ZEYAUDDIN, ARIF AND
SHAHABUDDIN
who have always been generous
to meet my genuine and
sometimes unreasonable demands
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PREFACE

Management typically conceives well-defined ideas of what it wants the organisation to do and it works to ensure that the organisation behaves accordingly. This gives rise to the need of control which provides assurance that the efforts and resources are fully utilised in the desired direction, so that the objectives set for the organisation are achieved. In the overall organisational set up, the role of marketing cannot be underestimated and a mistake committed in marketing can easily be reflected on the performance of the organisation as a whole. Furthermore, the volatility of market conditions cannot be predicted precisely and the invisible hand of market should not be left to operate freely on working of the organisation, but the organisations have to take notice of the changes to adjust its functioning to counter it in pursuit of getting the desired result.

Despite obvious managerial importance of marketing and control, marketing control has received little attention and very few comprehensive conceptual framework exist to determine as to how marketing performance should be evaluated. Mix of approaches — subjective and objective, outcome and process, activity based and behaviour based have been elaborated which have further complicated the
study of marketing control system. The exercise of control at different level of hierarchy requires different types of techniques.

The present work on marketing control systems in public sector fertiliser industry has been undertaken with the objectives to study the marketing control practices applied in public sector fertiliser industry, to examine the systems adopted for salesforce control, to discuss the application of accounting techniques in marketing control, and to identify the key marketing variables for control. The case study approach has been adopted and the four companies namely, Fertiliser Corporation of India, Hindustan Fertiliser Corporation Ltd., National Fertilisers Ltd. and Pyrites, Phosphate and Chemicals Ltd. were selected for the purpose. Primary as well as secondary sources of data were considered suitable for the assessment of working of marketing control systems in this industry. The study is divided into nine chapters preceded by an introduction covering the selection of marketing control and fertiliser industry. The first chapter on marketing control systems' describes the theoretical framework of marketing control systems. The discussion is mainly focused on control and control process, concept of marketing control and its components. The various approaches to marketing control have been discussed in detail. An
elaborate treatment to salesforce control system has also been made.

Second chapter is concerned with the two important aspects. In the first part an elaborate treatment has been given to the review of literature. The researches conducted in management control in general and marketing control in particular have been thoroughly studied. The academic works done in fertiliser industry have also been reviewed. The second part of this chapter is focused on research design for which the objectives of the study have been clearly detailed, framework of the study has been presented, the companies for the case study have been selected, methods of data collection have been discussed and the problems faced and the limitation of the study have been presented.

Chapter third, is concerned with the profile of fertiliser industry and marketing of fertiliser in India. This chapter is divided into two section. The first section examines the fertiliser industry profile where emphasis has been given on the status and role of public sector in this industry. The nature of fertiliser marketing required special treatment so in the second section of this chapter a discussion on marketing of fertilisers has been presented.

Chapters four to seven are the case studies of four companies FCI, HFC, NFL and PPCL respectively. These
chapters have also been divided into two sections. In the first section a brief profile of the companies is given with main thrust on production, sales, financial performance and marketing operations of the companies. The second sections of the chapters deal with marketing control practices, salesforce control systems, accounting techniques in marketing control and identification of marketing key variables. This section is based on primary information and forms the main part of the case discussion.

Chapter eight analytically studies the cases discussed in chapters four to seven. This chapter is also divided into two sections. To retain the spirit of case discussion, the first section deals with four companies case analysis separately. In the second section all the cases having have been consolidated to elaborate the application of marketing control systems in public sector fertiliser industry.

Last chapter, the ninth deals with conclusions and findings of the study. Some recommendations have also been made on the basis of the findings of the study. The chapter concludes with a brief direction for future research.

The research study is expected to help those engaged in fertiliser industry in general and public sector in particular. The Fertiliser Association of India, may find
this study useful. Executives at the higher level in marketing division and at the area manager level may consider these findings for improvement and recommendations for implementation. The academicians and researches may find this study helpful for further investigation.
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LIST OF ABBREVIATIONS

Acl  Ammonium Chloride
AS   Ammonium Sulphate
ASN  Ammonium Sulphate Nitrate
CAN  Calcium Ammonium Nitrate
CFP  Central Fertiliser Pool
CMM  Chief Marketing Manager
CWC  Central Warehousing Corporation
DAP  Diammonium Phosphate
FAI  Fertiliser Association of India
ECA  Essential Commodities Act, 1955
Dy MM Deputy Marketing Manager
FCO  Fertiliser Control Order
FDCO Fertiliser Development and Consultation Organisation
FICC Fertiliser Industry Co-ordination Committee
FMCO Fertiliser Movement Control Order 1973
FR   Field Representative
HBJ  Hazira, Bijaipur, Jagdishpur
HYV  High Yielding Varieties
JPC  Joint Parliamentary Committee
JSO  Junior Sales Officers
MOP  Muriate of Potash
MT   Metric Tonnes
NPK  Nitrogen, Phosphate and Potash
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPS</td>
<td>Retention Price Scheme</td>
</tr>
<tr>
<td>SO</td>
<td>Sales Officers</td>
</tr>
<tr>
<td>SSO</td>
<td>Senior Sales Officers</td>
</tr>
<tr>
<td>SSP</td>
<td>Single Superphosphate</td>
</tr>
<tr>
<td>SWC</td>
<td>State Warehousing Corporation</td>
</tr>
<tr>
<td>TPD</td>
<td>Tonnes per day</td>
</tr>
</tbody>
</table>
Essentiality of management has been recognised for all organised endeavour and to ensure effective management, control is imperative. It is a basic intellectual process used with a purpose of bringing the results of the plan as close as possible to the objective of the organisation.

Though control has been recognised as a fundamental management activity, but historically control issues have either received only limited attention or have been neglected since beginning. The necessity of proper control was pointed out by Henri Fayol in his coveted book "General and Industrial Management". Control being fifth and last element of management after planning, organising, commanding and coordinating could not receive as much attention as others because Fayol died before he could complete his book and since control came last in his elements, all we have a few pages on control outlining how he intended to deal with the subject. The growth of knowledge in the area of analysis and planning has far exceeded the growth of control knowledge. Newman puts his idea that "long pushed aside by the excitement of planning and challenge of organisation, refinements of controlling have received comparatively little attention by managers. Today managerial control offers great opportunities for
improving the effectiveness of private and public enterprises.\textsuperscript{6}

Need and Importance of Control

To accomplish the goal of the organisation effectively and efficiently and to experience success, control is required. By control managers assure that resources are obtained and used effectively and efficiently in accomplishment of organisations objectives.\textsuperscript{7} It is also needed for "motivating and inspiring people to perform organisation activities that will further the organisation goals. It is also a process for detecting and correcting unintentional performance errors and intentional irregularities such as theft or misuse of resources".\textsuperscript{8} For organisational goal achievement control is considered as an integral activity. The need for control increases for motivating people because intentional and unintentional errors are the human weaknesses which give rise to the requirements of control. The other dimension signifying control emerges from its resource allocation as it ensures that human, physical and technological resources are allocated so as to achieve the overall purpose of an organisation.\textsuperscript{9}

The necessity for formal control increases, when the firms become larger as management can no longer monitor all aspects of the organisation personally. There has to be some formal system to ensure that performance is close to
the plan. Furthermore, the executives require control in order to maintain a state of equilibrium within the system for which he has managerial responsibility and authority.\textsuperscript{10} This equilibrium is in terms of resource allocation, evaluation, motivation and monitoring etc. which are the essence of control. The importance of control can simply be understood from the fact that even the best plans are not effective unless they are carried out properly which is made possible by establishing effective control for all the important components of the plan. Control is the opposite side of the coin from plans and both go hand in hand. Ineffective control results in chaos and inefficiency whereas "control compel events to conform to the plans".\textsuperscript{11} Control is fundamental and indispensable part of the management task and "without control there can be no management".\textsuperscript{12}

Application of Control

Control is applicable in all the functional areas of management be it production, finance, personnel, marketing and their sub-functions. But the control literature mostly emphasize production and financial control the impact of which we find that well established control techniques and concepts are available in these areas, like routing, scheduling and despatching, statistical quality control, network analysis are few examples in the areas of
production and ratio analysis, budgeting, costing, variance analysis are some well established techniques applied in finance. The application of control in marketing can not be claimed to be of recent origin though it is true that control in marketing literature could not get as much attention as planning and organisation. Very few techniques could be developed specifically for marketing control purposes and mostly the borrowed concepts from accounting and production are applied in marketing control like sales analysis, profitability analysis, efficiency evaluation, budgeting, control charts, etc.

The present project is meant for the study of marketing control systems in public sector fertiliser industry. The selection of the industry is mainly due to its importance in Indian agriculture.

Need and Importance of Fertilisers in Indian agriculture

The need for fertiliser in Indian agriculture was felt long back in nineteenth century but this has become more pressing in recent times. The ever increasing population requires foodgrains in ample quantity as India is accommodating approximately 84 crores of people constituting 15.3% of the world population on only 2.3% of world land. The population which was only 36 crores in 1951 has increased by 133% till 1991. This high pressure of population has forced to plough more than 46% of entire area reported for land utilisation purposes. The number of
people per hectare of arable land which was 2.2 in 1951 has increased to 4.9 in 1989 and it is expected to cross 6.0 by the turn of the century. The land-man ratio is decreasing resulting in greater pressure on the land to produce more and more which has reinforced the need to increase crop productivity per unit of land and it is not possible without proper, judicious and balanced use of fertilisers as it has been accepted as one of the vital inputs essential for the development of crops, the other being improved seeds, technology back-up, plant protection services, machinery, soil management, credit facility and marketing etc.

The improved seeds in the form of high yielding varieties (HYV) of paddy, wheat and maize etc. require fertiliser in more quantities as the soil is not that fertile to bear the burdens of nutrient erosion due to HYV cultivation which has increased from 18.9 lakh hectares in 1960 to 670 lakh hectares in 1990-91.

It is a fact that India has achieved self-sufficiency in foodgrain production with a record harvest of 1772 lakh tonnes during 1990-91 which can be attributed to the use of fertilisers in increasing quantities. For every tonne of fertiliser nutrient, there is 7 to 8 tonnes of foodgrain increase. In early eighties 35 to 40% of foodgrain production could be attributed to fertiliser use but now
it has been estimated that 70% growth in agriculture can be attributed to increased use of fertilisers. The dependence on fertiliser will increase further as the soil can not bear the burden of increasing agricultural production without external support which will be made available in the form of organic, inorganic and biological source of plant nutrients.

Sixteen elements of nutrients have been considered essential for growth and development of plants. Carbon, hydrogen and oxygen are provided by air and water where the remaining are made available by soils, fertiliser and manures. They are: (a) Macro nutrients like Nitrogen (N), Phosphorous (P), Potassium (K), Sulphur (S), Calcium (Ca) and Magnesium (Mg); and (b) Micro nutrients like Boron (B), Chlorine (Cl), Copper (Cu), Iron (Fe), Managese (Mn), Molybdenum (Mo) and Zinc (Zn).

Additions of N, P, K, Zn and S to the soil are of great importance because their deficiency in Indian soils are widespread. Fertilisers are used to correct those deficiencies. The air contains 79% nitrogen and is virtually inexhaustible but the plants can not use them directly and this has to be converted into ammonia or nitrate before the plants can absorb and use it for growth. The fertiliser factories essentially capture N present in
the air to synthesize ammonia or nitrate and make a wide range of fertiliser products.\textsuperscript{22}

Selection of Public Sector

The selection of public sector for the purpose of study of marketing control is due to the following factors:

5.1 The public sector's participation in Indian fertiliser production and marketing is more than 40 years old. The application of management concepts and government policies are expected to be applied more in the public sector organisations than the private sector units.

5.2 Secondly, the share of investment in public sector fertiliser units to the total investment in fertiliser industry, though decreased over the years but occupies 52\%.\textsuperscript{23}

5.3 Thirdly, the share of production capacity of nitrogenous fertilisers with the public sector is 53\% and of phosphate is about 30\%. The rest is occupied by co-operative and private sector. Nitrogenous and phosphatic fertilisers taken together, the public sector constitutes 47\% of the total installed capacity.\textsuperscript{24}

5.4 Last but not the least, the public sector fertiliser industry has got both types of organisations like profit making and loss sustaining, more than 100\% capacity utilisation units and even less than 50\% capacity utilised units; and manufacturing and marketing different varieties
of nitrogenous and phosphatic fertilisers. This gives an opportunity to study a cross-section of companies.

With the above ideas in mind, the present study is concentrated on marketing control systems as they are applied in public sector fertiliser industry.
REFERENCES


15. India 1990, Ministry of Information and Broadcasting, Govt. of India, New Delhi, pp.383-396.


21. Ibid., p.16.


24. Ibid., pp.48-49.
CHAPTER I
MARKETING CONTROL SYSTEMS

Control is a basic managerial function but often it has been associated with financial matters and sometimes with production system. Though certain fundamental elements, both essential and valid are equally applicable for people, things, situation and organisations. In the organisation also control has been misunderstood as the top management responsibility and the lower level management is devoid of this function. This notion led to the dearth of control literature in different functional areas such as marketing. In this background, firstly, there is a need to study the concept and nature of control and subsequently, the approaches of marketing control.

1. CONTROL AND CONTROL PROCESS

Control has been conceptualised mostly in terms of its process and less in terms of techniques and framework. Henri Fayol concluded that "control consists in verifying whether everything occurs in conformity with the plan adopted. It has for object to point out weaknesses and errors in order to rectify them and prevent recurrence. It operates on everything, things, people, action". Fayol's idea is that measuring, comparing and taking corrective actions are the elements of control.
Dalton and Lawrance consider that control is a formal system for setting objectives, measuring performance and taking action in order to enhance performance".\(^2\) They have clarified control as a formal system and included objective setting as an element of control where Koontz, O'Donnel and Weihrich consider "control as measurement and correction of the performance of subordinates in order to make sure that enterprise objectives and the plans devised to attain them are accomplished".\(^3\) But Ouchi has extended control further "from monitoring and comparing outcomes with standards to rewarding and adjusting strategy".\(^4\)

The discussion so far highlights that considerable consensus exist among the experts that control is a process of measuring and monitoring performance but the difference lies in its scope and details. The basic steps of control have been clarified in the definition of Fayol but others have tried to make it either more simplified or more detailed. It has been, explained involving three steps - (i) establishing standard (ii) measuring performance against these standards; and (iii) correcting deviations from standards and plans.\(^5\) A different view of control process has been presented with the help of three phases of (i) Planning (ii) Execution, and (iii) Evaluation of action that occur before during or after the action or event respectively.\(^6\) Here the standard has been broadened in terms of planning and an additional element of execution
has been added which gives idea predominantly of managerial functions than merely control. All the other elements of control have been incorporated in evaluation (like corrective action, feedback etc.). Maciariello has further extended the scope of control and has added some more dimensions of the control process. His three steps of control are (i) formulation of 'expectations' (ii) resource 'allocation'; and (iii) 'monitoring performance'.

Corrective action has been included in the last step, whereas an additional factor of resource allocation has been added as an element of control. But a more detailed analysis of control process has been given by Mockler who considered that "control is a systematic effort (i) to set performance standards consistent with planning objectives; (ii) to design information feedback system; (iii) to compare actual performance with these predetermined standards; (iv) to determine whether there are any deviations and to measure their significance; and (v) to take any action required to assure that all corporate resources are being used in the most effective and efficient way possible in achieving corporate objectives".

The above is a comprehensive analysis of steps of control alongwith the objectives behind it. The other feature he has considered is that of designing an
information feedback system is a part of the control process.

2. NATURE OF MANAGEMENT CONTROL SYSTEMS

The nature of control in the organisation has been described in many ways. It has been considered as a coordinated and integrated system, a total organisation system, has got structure and process, includes both formal and informal controls, it is restrictive as well as regulative, involves executive action and higher level support, an extension of corporate planning, closely related with other management functions but not synonymous with management, a complex function involving more than just comparing, measuring, and taking corrective action. These features of control have been explained and emphasized at many places in different ways. Two other important features require some explanation as they have relevance with marketing control systems.

(1) Although control is a function of every manager but some managers particularly at lower level consider that responsibility to exercise control rests only at the higher level. The over emphasis of control at the top and upper level gives the impression that little controlling is needed at lower levels, where control is an essential managerial function for all levels. The vast majority of
control problems however, are encountered at lower levels in a business organisation.\textsuperscript{13}

(2) The other feature of control is that it is usually built around a financial structure,\textsuperscript{14} and is basically rooted in accounting.\textsuperscript{15} But control is no longer a special province of financial and accounting personnel and limited to the traditional financial control tools but now covers a wide variety of control techniques and situations. The application of control has increased at all levels and the accounting tools and techniques are also widely applied. It is, however, true that traditional financial control techniques have given way to the modern non-financial controls.

The impact of these two features are that:

(i) control could receive limited application in non-financial area especially marketing, and

(ii) when the control began to be applied in marketing, accounting techniques could get a way for application in it.

The present day marketing executives are engaged in the analysis and evaluation of sales, market share, salesman's performance, sales expense by product, new product development, service efficiency, profitability by product, advertising effectiveness and other servicing cost in order to compare weekly, monthly, or quarterly performance in each area against pre-determined
standards.\textsuperscript{16} This facilitates the managers in proper implementation of marketing programmes for the general good of the organisation.

3. MARKETING CONTROL SYSTEMS

From the review of marketing literature, Kenneth A Merchant concluded that marketing control has not received much managerial, research or textbook attention.\textsuperscript{17} Similarly no agreement has been reached as to what activities should be included in the scope of marketing control.

Whatever definitions of marketing control are available, they emphasize the cybernetic system of control in terms of process. Buell defines the managerial control of marketing operations "as a means by which marketing management measures progress towards attainment of marketing goals so that timely action may be taken to improve performance or modify the goal if performance is not in accordance with plans".\textsuperscript{18} He has given a direction of corrective action in the form of change of goals. A more comprehensive idea regarding marketing control has been put forward by Park and Zaltman in the form of a system of methods, procedures and devices used by marketing managers to assure compliance with marketing and organisational policies and strategies". They further consider marketing control as a monitoring device rather
than a corrective device which would be used only after observing a discrepancy between the initial goal and actual outcome. The explanation extended by them has broadened the scope of marketing control system in totality of the organisational policies and strategies but the scope of corrective decisions have been made limited upto monitoring only. Merchant concluded marketing control as everything that helps ensure that the people in the organisation are acting so as to implement properly the marketing strategy that has been agreed upon.

In simple words, it can be said that marketing control is a systematic effort which allows the managers to compare marketing performance with the predetermined standard, plans or objectives so that corrective actions may be taken to assure that marketing resources are being used in most effective and efficient manner.

Most of the firms evaluate marketing performance periodically and systematically to unearth the causes of potential weaknesses to take corrective actions. But there are firms which are contented with the limited indicator of performance measure and surface data. They do not recognise the benefits accruing from control. The mechanisms of control are needed especially in marketing for quick recognition of problem situation untill it is too late for corrective action. Only with adequate marketing controls, the marketing managers make adjustment in the
objectives, strategies, or implementation of specific marketing programmes and the overall marketing mix.  

4. COMPONENTS OF MARKETING CONTROL SYSTEM

Formal marketing control requires two important components - structure and process. The structure focuses on the responsibility centre (e.g. marketing department, sales department etc.) where the process includes interrelated phases of programming, budgeting, operation and measurement, and reporting and analysis for control.

An overview of marketing control indicates that generally it has these six components, which are more related with control process: (1) Marketing plan (2) Marketing key variables (3) Performance standards (4) Assessment (5) Corrective action and (6) Communication and Feedback.

4.1 Marketing Plan:

Marketing Plan comprehensively documents marketing situations, opportunities, objectives, strategies, action programmes etc. The goals and objectives are stated in quantitative and qualitative terms for different products and markets. The plan focuses on the issues of marketing mix elements. Sales revenue, profit, market share, advertising expenditure etc. are clearly stated in marketing plans which are needed for control.
4.2 Marketing Key variables

Out of many marketing activities some are so important that they should not be left without being controlled as a continuous failure in any one of them may prevent the achievement of organisational objectives inspite of the fact that other activities are successfully accomplished.\(^2\) They are essential for effective discharge of managerial responsibilities; require prompt and timely action; volatile in nature; changes in them are not easily predictable; and they can be measured either directly or with the help of some surrogate.\(^3\) The nature of the variables vary from industry to industry, time to time\(^4\) and organisation to organisation depending upon the nature of task and environment in which the organisation operates.

There are many types of marketing key variables identified like sales and specific marketing expense, order book position, market share, gross margin percentage to sales, institutional sales, key account order, customer satisfaction etc. But the key variables can be considered from the angle of input and output variables which are shown in Exhibit 1.1.
Exhibit 1.1: Input and Output Variables for Marketing Control

<table>
<thead>
<tr>
<th>Input Variables</th>
<th>Output Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>Sales</td>
</tr>
<tr>
<td>Product R&amp;D</td>
<td>Market share</td>
</tr>
<tr>
<td>Advertising</td>
<td>Profit</td>
</tr>
<tr>
<td>Promotion</td>
<td>Communication Result</td>
</tr>
<tr>
<td>Distribution</td>
<td>Distribution result</td>
</tr>
<tr>
<td>Marketing Research</td>
<td>Consumer Attitude and Behaviour</td>
</tr>
<tr>
<td>Marketing Administration</td>
<td></td>
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</tbody>
</table>


This is not an exhaustive list. The other variables of importance may be marketing cost reduction, guaranteed supply, popularisation of the product, packaging and transportation etc. Normally, the input variables are controlled with the help of budgets where output variables are controlled through performance standards.

The variables are identified either through long experiences, own intuition, based on statistical facts or any other relevant information or through the contribution of sub-objectives of the organisation. All the functional objectives are critically and systematically evaluated for the determination of control variables.
The control variables are also known by the other terminology like Key Result Areas (KRA), key variables, strategic factors, control variables, key success factors, key result factors and pulse points.

4.3 Performance standard

Generally, the marketing control requires quantified performance standards to work as acknowledged measure for evaluation but it is difficult to set proper standard for marketing control as the exogenous factors impinging upon marketing programme implementation dilute the base for evaluation. Based on the past performance, sales forecast, industry data, and government projections, the standards are set in terms of physical units, monetary units, ratios etc. Systematic and comprehensive planning specify the standards in sufficient details in terms of output; input and productivity level. Some output standards are sales volume, market share, level of product recognition, input standards are marketing research expenses, sales administration expenses, merchandise inventory level etc; and productivity standards among others are return on investment, profit as a percentage of sales etc.²⁹ The standards can be set at very specific level such as for salesforce control the standard may be sales calls per day, average sales revenue per sales calls, sales call cost etc.
4.4 Assessment (Evaluation):

The evaluation of performance against standards is the essence of marketing control as out of control conditions are separated for proper monitoring. The evaluation is a continuous process in marketing and it ranges from daily through yearly basis depending upon the nature of product, market and environment, but the managers give detailed attention to unusual or exceptional items, when the gap between standard and performance widens, and it does not require additional attention when the performance is within a prespecified range. The evaluation is of no use unless the causes of deviation are not properly analysed.

4.5 Action (corrective action):

The ultimate purpose of any control is to bring the performance to the prespecified standard which is made possible by taking corrective action on the basis of evaluation. The need for corrective action arises due to the performance gap or variance. The decision basically starts from action - no action stage. If the decision is to take action, the causes are objectively assessed to see whether controllable or uncontrollable situation exists and then the actions are taken accordingly.

Sometimes, standards are imperfect or difficult to be achieved, and ultimately, they are forced to be changed. In case of post action control, the future period planning
Market share when analysed after one year period, the control becomes future directed but when the sales analysis is done for shorter duration, monitoring is possible within the period. Evaluation of sales promotion programmes when undertaken during the programme implementation period facilities modification in programme, within the period. Control system leads to corrective action when applied properly.

4.6 Communication and Feedback:

Informations are required for evaluation and corrective actions and they vary with organisational levels. At lower level, it is detailed, specific and quantitative, focused on deviation from standard where at higher level it is more general, summarised, focusing on key variables. The information also vary in terms of internal and external sources. The performance and standard reports are internal where the environmental changes generate external information for control purposes. Marketing control needs formal and informal reporting also. Formal reports are written, periodic and pass through a formal channel (from sales persons through marketing manager) where informal reports are made available through face to face meeting, telephone contacts etc. Normally, informal communication occurs throughout the conduct of the operation.
The other dimension of information is the aggregated and disaggregated data which are used for marketing control. The aggregate data on price, sales and profit can be disaggregated like sales by product, territories, major accounts etc. Similarly, Marketing expense data can be disaggregated in terms of advertising, sales promotion, salesforce, sales administration etc. The basic purpose of disaggregation of data is to communicate information in the manner desired for evaluation and corrective action.

5. APPROACHES TO MARKETING CONTROL

Marketing control has to ensure that the resources and opportunities are utilised upto their maximum extent. To comply with these requirements a comprehensive framework for control is needed so that all aspects of marketing should be evaluated. But the literature available on marketing control is mute on this particular area and what we find are the piecemeal approach of looking into this problem. Even the text book attention to this side is limited and a generally agreed upon framework is lacking. Some approaches of control applied in marketing are discussed below.

5.1 One approach for marketing control is based on input and output variables. For controlling inputs the reliance is mainly on the budgets like advertising, sales promotion, sales administration, marketing research etc. and for controlling output variables the techniques used to analyse
are separate performance standards like market share analysis, sales analysis, profitability analysis. In addition to that some performance standards are used for evaluation of advertising, sales promotion, distribution and salesforce etc.  

5.2 The other approach towards marketing control is to recognise the marketing department as a revenue responsibility centre with order getting (marketing) and logistic activities. The evaluation of marketing efforts is difficult because of changes in the marketing environment and to meet the budgetary commitment for selling expenses constitute a minor part of the evaluation. In this approach only budgetary control system has been specified for input and output.  

5.3 The another approach towards marketing control is based on the application of accounting techniques which facilitates the evaluation of possible course of action like discontinuing a product, adding a channel, or increasing promotional expenditure. Marketing cost analysis of relating marketing activities to sales in order to measure profit of marketing segments have been proposed. The working capital invested in accounts receivable and inventories are considered to be the parts of assets being managed for the evaluation of sales revenue generated under the ROAM (Return on Assets Managed)
approach.\textsuperscript{38} Similarly, the use of return on investment (ROI) has been applied widely in marketing like advertising expenditure decision, product introduction and improvement decisions and sales management.\textsuperscript{39} The Gross Marketing Earning (GME) and Net Marketing Earning (NME) calculations based on cost sheet pattern have been proposed for advertising and sales promotion expenditure and a variety of ratios can be calculated to pin point the area offering profit improvement opportunities.\textsuperscript{40} Variance analysis and budgetary control have been proposed to analyse the performance deviation due to price decline, volume decline and unfavourable changes in mix of product. Apart from that, Break Even Analysis is also considered for controlling marketing activities. The application of variance analysis for fixation of responsibility on managers has been described by Hutbert and Toy.\textsuperscript{41} The main variances calculated are market share variance, volume variance, price/cost variance etc. Dave and Murthy\textsuperscript{42} based on their research found that management accounting techniques which are widely used in evaluation of responsibility centres are Break Even analysis, budgetary control, accounting ratio, return on investment, standard costing, inventory control, capital budgeting etc. Bhadada\textsuperscript{43} has suggested the application of accounting ratio, budgetary control and profitability control for the evaluation of marketing departments of textile mill units.
All the approaches sighted above are the accounting answer to marketing control. These techniques are applied for many marketing input and output control and this is one way to look into the techniques applied for marketing control.

5.4 Taking into account the different approaches applied in marketing control, four types of control have been specified by Kotler\textsuperscript{44} which are annual plan control, profitability control, efficiency control and strategic control. The relevant approaches for these types of control are being shown in Exhibit 1.2 and a brief discussion follows on these approaches.

Exhibit 1.2: Approaches to Marketing Control

<table>
<thead>
<tr>
<th>Types of control</th>
<th>Approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Annual Plan control</td>
<td>Sales analysis, market share analysis, customer attitude tracking studies etc.</td>
</tr>
<tr>
<td>2. Profitability control</td>
<td>Profitability by product, territories, customer group, channel etc.</td>
</tr>
<tr>
<td>3. Efficiency control</td>
<td>Efficiency of salesforce, advertising, sales promotion etc.</td>
</tr>
<tr>
<td>4. Strategic control</td>
<td>Marketing audit, marketing effectiveness rating</td>
</tr>
</tbody>
</table>
5.4.1 ANNUAL PLAN CONTROL

In annual plan control, the plans are made for a year and the performance is monitored during and after the plan period. The approaches include sales analysis, market share analysis and customer attitude tracking studies. Sales analysis is a detailed study of sales in terms of product, product line, region, salesperson, customer type, time period or method of sales etc. The study of overall current sales is insufficient and diagnosis of firms strength and weaknesses become difficult due to the working of 80-20 principle (Iceberg principle) which states that a large portion of total sales come from small portion of customers, product or territories. Moreover, the present figures are not material in themselves but they become only when they are set against some standards which are generally the sales budgets, sales forecast and last period sales.

Ideally speaking, the data for sales analysis should be analysed for as many indicators as possible and for narrower sales categories but generally limited number of control units are selected depending upon the nature of company and product as the multiplicity of indicators give different signals which make the marketing control a difficult task. Furthermore, the bases of evaluation also give different ideas, about current performance.
Controlling on the basis of last year sales volume is only a superficial way as great many factors affect sales volume such as economic condition, competitors action, companies marketing policies etc. The other basis is the sales budget or forecast figure which the company reaches after proper evaluation of the market potential and company's strengths. They are considered to be more suitable standards for performance evaluation.47

Sales analysis explains performance of the organisation in relation to its own set standards but it lacks explanation of the nature of its performance in relation to its competitors. Market share measurement is treated to be an effective tool for management diagnosis as it compares the firm with average performance of all other companies in the industry implying that a firm should be able to keep pace with all its rivals in terms of total sales.48 The PIMS (Profit Impact on Marketing Strategies) data support that under most circumstances, enterprises that have achieved a high share of the markets they serve are considerably more profitable than their smaller share rivals because of economies of scale, market power and quality of management.49 It is better to calculate as many number of market shares as possible taking into account the cost of calculation and kind of data available50. Out of many types of market share analysis, most commonly used shares are overall market share expressed as a percentage
of companies sales of a product in terms of total sales (or market potential) of that product in the industry; served or allocated market share expressed in terms of sales of a company's product in relation to the sales of that product in a particular region (or government allocated market) or to a particular type of customer; and relative market share expressed as a company's sales of a product in relation to either the top competitor, market leader or the companies of a particular sector. The selection of analysis depends upon the nature of industry, requirements of the organisation and accuracy and timely availability of data. But market share is not used as a primary measure of marketing performance as it includes outside environmental implication which do not effect all firms equally, gives false sense of security, a loss of market share may be due to management decision to improve profitability by eliminating unprofitable territories, signals that something is wrong but does not indicate the cause, and targets selected in terms of market share may be in conflict with other goals of the firm such as short run and long run profit, minimum risk of loss or maximum prospects for survival. Even after all these weaknesses, market share is widely used as a language of expression of the target and evaluation.
In addition to the quantitative measures like sales analysis and marketing share analysis etc. the companies try to gauge the attitude and satisfaction of customers and other intermediaries from time to time. The information gathered from the market serves as guide for changing the market offering, channel etc. The methods which are adopted for the customer attitude tracking studies are complaint and suggestion system where the customer either directly write to the company or informs the field salesforce, dealers, retailers etc. The management evaluates the opinion of the customers and then take proper action. The companies also maintain the panel of customers who inform about their attitude towards company's policies, products etc. from time to time. Sometimes the discussion of the customer panel members are organised by the company so that free and frank ideas may be generated. In addition to the above, the companies survey the customers to know about their opinion regarding product and services, marketing programmes etc. As these types of surveys are costly so the companies take help of their own field staff for the purpose rather than opting for any outside agency. The scope of this method for current period control is limited and small companies can not afford to go for this technique in a systematic manner and on continuous basis.
5.4.2 PROFITABILITY CONTROL

The sole objective of profitability control is to pinpoint where the company is making profit or losing money so that the company may modify its marketing programmes accordingly. A wide variety of products are marketed to the different types of customers through various channels which require that the profitability should be analysed for the product and product line, market segments, channel members, sales territories etc. This enables management to identify the trouble spot.

For profitability analysis the basic need is to determine the cost and revenue for the respective breakups. The revenue data are made available more easily than the cost data. The cost data are available in the ledger accounts maintained on the basis of natural cost like salaries, wages, taxes, insurance and advertising expenses etc. which are not in usable form without being broken down and allocated to different activities. Three steps are involved in allocation of marketing cost and reaching at a profit by product, segment or territories.

1. Reclassify the natural costs into functional costs as per the purpose or activities e.g. the salaries paid may be allocated to advertising, personal selling, marketing research, transportation, storage etc.
2. Reallocate the functional costs to the marketing segment, channel, product etc. The reallocation is a major problem because some costs are direct for some activities but may become indirect for the other. Furthermore, the arbitrary basis is selected for allocation of costs. The salespersons salary is a direct cost for evaluation of sales territories profitability but becomes indirect for evaluation of product profitability and on what basis the salary will be divided for two products is arbitrary. A third type of costs which are also indirect but their allocability is much more difficult than the previous one are sales administration expenses and corporate image cost.

3. A detailed profit and loss account is prepared for the territories, product, customers, channel etc. or any other breakdown desired for control on the basis of net sales minus allocated costs. The actual form of profit and loss statement will depend upon the nature of company being analysed, the purpose of marketing analysis, and the informations available. The top management generally finds full cost approach more useful where most marketing sources have utilised the full and direct cost approach. Decisions based on profitability have particular relevance in the area of product introduction and abandonment, pricing and determination of marketing effort.
5.4.3 EFFICIENCY CONTROL: Marketing departments are interested in analysing the efficiency of their different activities as to whether the resources utilised give the desired amount of output. But sometimes quantitative measures are not available to analyse them. The indicators adopted depend upon the nature of industry, requirements of the company, the resources available for analysis etc.

Advertising efficiency is difficult to measure as the relationship between advertising expenditure and the resultant revenue can not be specifically established. Some indicators are used for the purpose like customer opinion about the advertisement content, awareness about the product, percentage of target audience who read the print advertisement etc. The management can take corrective action by changing the media or messages if the desired result is not forthcoming.

Sales promotion efficiency is measured on the basis of interest of buyer in the product after or during the implementation of the programme, cost of promotion programmes and resultant sale, display cost per sales rupees, number of enquiries generated after the promotion programmes etc.57

Similarly, distribution efficiency is analysed for the transportation and channels. The indicators are the offtake of material through a transportation mode, cost of
railway freight to truck load, ratio of damaged goods to method of transportation mode, cost of railway freight to truck load, ratio of damaged goods to method of transportation, inventory turnover etc. The distribution channels are evaluated on the basis of quantity sold through different channels to understand the relative efficiency of one channel over the other. Due to multiplicity of indicators, the results generally conflict so the companies select limited number of indicators for the purpose of arriving at a decision for corrective action.

5.4.4 STRATEGIC CONTROL

The strategic control is operative at the corporate level and it is more than the analysis of efficiency and profitability etc. It is qualitative in nature for investigating the marketing thrust and activities to allow thorough inspection of entire marketing operation. This control, in large organisation is generally aided by a formal marketing audit which helps in strategy selection and revision of objectives. It is a thorough, critical and unbiased look at goals, organisational structure, use of resources and marketing operations. Marketing audit is intended for prognosis as well as diagnosis and is a practice of preventive and curative marketing medicine.

Marketing audit has been defined as "a comprehensive, systematic, independent and periodic examination of
company's or business unit's marketing environment, objectives, strategies and activities with a view to determining problem areas and opportunities and recommending a plan of action to improve the company's marketing performance".\(^6^2\) It is conducted on a regular basis as a tool of management rather than a 'criticism of management'\(^6^3\) and audit conducted in normal circumstances is more useful than crisis period audit.\(^6^4\) The audit may be conducted by marketing executives, by a task force from the company, personnel specialising in auditing job within the organisation or by outside consultants. The later is costly but assures impartiality where the former lacks objectivity.\(^6^5\)

The components included in marketing audit vary from organisations to organisations. A detailed marketing audit generally includes: (i) marketing environment audit which studies the macro environment like demographic, economic, political, cultural aspects and task environment about markets, competitors, suppliers, dealers etc. (ii) marketing strategy audit which includes the study of appropriateness of marketing objectives, goals and strategies (iii) marketing organisation audit of formal structure, functional efficiency etc. (iv) marketing systems audit provides information regarding marketing information system and marketing planning system etc, (v)
marketing productivity audit uncovers sources of excessive cost and poor profitability contribution and is related with efficiency control and (vi) marketing function audit deals with the marketing mix elements.\textsuperscript{66} The components discussed above are comprehensive and it is not possible for smaller medium and resource poor organisations to include all components.

The approaches so far explained are applicable at the marketing division or corporate level but the control is required at regional, area and territory level also. One of those important areas of activity is the salesforce management where the control is exercised by the area manager or regional manager. The control problem of salesforce are different than whatever is applied at corporate or marketing division level. The succeeding discussion highlights the approaches applied in salesforce control.

6. SALESFORCE CONTROL SYSTEMS

The techniques applied for salesforce start from their placement in the sales territories. The sales persons are assigned a territory which is a grouping of customers and prospects so that they should properly cover the market. These territories are helpful in controlling selling expenses and assisting in the evaluation of salesforce.\textsuperscript{67} In designing the sales territories the sales potential is assessed so that the evaluation may become
easier. The way in which the territories are designed, have an impact on the salesperson's performance. So the territorisation is one area of study for the evaluation of salesforce. But the territories in themselves are not the mechanism of control but they assist in evaluation and control of salespersons.

The framework for salesforce evaluation is not specified. One approach has been given by Stanton and Buskirk in terms of output and input focus. The output focus includes sales volume, quota, gross margin and accounts whereas the input factors used for evaluation are calls, days worked, selling expenses, and non-selling activities. There are evidences available that salesforce control have been more outcome based due to relatively little monitoring, managerial direction and straightforward objective measures of result rather than methods salespeople use to achieve results.

Most widely used approaches are sales quota, sales budgeting, efficiency evaluation and behaviour based control. Sales quotas are the quantitative performance goal assigned to a marketing unit e.g. salesperson to aid in planning, evaluation and control of salesforce. The quotas are of many types, but the commonly used quotas are - Sales volume quota which is expressed either in monetary units or in quantities of sales to be made within a
specified period of time. The gross margin, net profit or budget/expense quota are also set by some companies which stress more on generation of profit than only sales volume. Hardly, expense quotas are used in lieu of other quotas but they are supplementary to sales volume quota. To allocate the time and effort of salespersons, some companies set activity quotas like number of sales calls, number of product demonstration to be made, number of hours for collection, erection of point of purchase display, report writing etc. This quotas becomes important when non-selling activities dominate. A combination quota is also set where more than one type of quotas are joined together like sales volume quota and activity quota.

The sales budgets prepared for controlling sales-force are having two components - revenue and expenses. Sometimes the selling expense budgets are prepared separately wherein the salaries, commission, and other expenses for the salesforce are determined. The revenue side of the budget is nothing but the replication of the sales volume quota. With the help of these two, the sales managers control the expenses to be incurred on the salesforce and the revenue to be generated by them.

For analysis of salesforce efficiency many indicators are used like average sales call per day, average sales per sales call, average contribution margin per sales calls, sales call time per contract, order call ratio, average
travel cost per sales calls\textsuperscript{71}. In addition to that salesforce expense to sales ratio for the territories and salespersons are calculated. Similarly, where the non-selling activities are important, based on their responsibilities, appropriate standards are set for participation in promotion programmes, obtaining dealer display and co-operative advertising contract, training distributor's personnel, credit collection and reporting etc.

In addition to the quantitative measures, qualitative and behaviour based evaluation of salesforce is also done by the companies. The areas where qualitative controls are applied are product knowledge, presentation quality, closing abilities, services performed,\textsuperscript{72} customer relation, personal appearance and health, co-operativeness, resourcefulness, acceptance of responsibilities etc.

7. CONSEQUENCES OF CONTROL

Struggling to improve performance, sometimes the managers get lost in implementing the marketing plan and use tight control measures, setting aside its effect on human behaviour. The studies show that the high performance standards lead to employee apathy, frustration, manipulation of data, informal group formation etc.\textsuperscript{73} The different types of barriers to control are erected by the executives whose performance is evaluated. To counter such
dysfunctional behaviour, the framework for control necessitates an integrated and co-operative spirit throughout the marketing organisation. Control is an effective medicine for prevention and cure but the executives have to decide its proper dosage.
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CHAPTER II
REVIEW OF LITERATURE AND RESEARCH DESIGN

This chapter deals with two important aspects of research. The review of literature which is undertaken to identify these areas in which the studies have been conducted and the research design which deals with the nature and scope of the study, method of data collection, analysis and interpretation etc.

1. REVIEW OF LITERATURE

To undertake the proposed study, it was considered essential to review the available literature on the subject. Two main dimensions of the review were considered important, the first being marketing control systems and its related areas and the second related with Indian fertiliser industry.

1.1 Control and its implications

Due to the application of control predominantly on finance, most of the studies are related with accounting and budgeting and their impact on human side of the organisation. Argyris, Pierce, Hopwood, Burns and Waterhouse have established negative relationship between budgeting and human behaviour. Hirst argued that dysfunctional behaviour associated with different use of accounting performance is a measure of task uncertainty and depends on the extent to which such measures are
incomplete. In another study he concluded that where task uncertainty was high, subordinate reported an increase in tension as reliance on accounting performance measures increased. But Otley stated that style of budget use did not effect job or budget related tension, but it increased when a manager disagreed with the way in which budget were set or his performance was evaluated rather being uniformly associated with any particular style. Brownwell concluded that stronger support is available for the proposition that budgetary participation would be more effective and have significantly greater positive effect on managerial performance in R&D than in marketing. Ouchi stated that various forms of evaluation and control will result in differing individual level of commitment or to alienation from organisation and its objectives.

The literature cited above are concerned with control problems and most of the studies have been conducted predominantly in relation to accounting information and human dimensions. Dominance of control on use of finance and exercised at higher level were the causes for study to be limited in very few areas.

1.2 Marketing Control Systems

The studies in marketing control are not of very recent origin, though it is true that it has got very limited attention in marketing literature.
The forerunner in marketing control study is Hersey, who gave the elements of marketing control in 1938. He recognised that control depends entirely on the nature of the organisation and organisation's objectives. The elements which he identified are sales volume, sales price, overhead charges, net profit etc. but he expressed the impossibility of reporting each item of influence by type of product, customer, method of delivery, size of order cost, selling price and amount of profit etc. without causing confusion. Thus, the data should be broken down in simple forms, frequency of reporting and meeting should be increased and control figures should be presented with the help of chart. He stressed the need for research department to guide the action by fact rather than fancy or mere hope. As this is a classical article, it lacks the modern concept and techniques applied in marketing and control.

Schiff and Schiff stated that the marketing managers should realise that their decisions should be evaluated not merely in terms of sales volume, market share and profits but also on the basis of a critical criterion of Return On Assets Managed (ROAM). Oxenfeldt concluded that market-share should be used for evaluation purposes and proposed different indicators of this analysis but cautioned that due to time and point of measurement same result can not be reached by all the methods. The movement
can signal that something is wrong but do not indicate the cause of trouble and sometimes it provides a faulty standard. Its indiscriminate use can lead to costly and hasty mistakes. In the other study Buzzel, Gale and Sultan\textsuperscript{14} concluded that market share and return on investment are strongly related and high rate of return usually accompany high rate of market share as marketing cost as a percentage to sales declines. Bloom and Kotler\textsuperscript{15} have categorised the market share management and suggested measures of planning and control under different conditions as they view that gaining a higher market share may be more troublesome than its worth.

The market share analysis has been considered as an important indicator for planning and control in marketing control literature but the extent of its use in the industries have not been analysed.

1.3 Impact of Competition and Structure on Control

Khandwala\textsuperscript{16} studied 92 American firms and found that competition is a factor that tends to increase the usage of sophisticated accounting, financial and other controls; the price competition has little or no effect on the use of these controls; marketing competition seems to have a modest positive effect; and product competition seems to have a much larger positive effect on the usage of
sophisticated control. This requires control system
designer to know the intensity of each type of competition.

Ruekert, Walker and Roering\textsuperscript{17} are of the opinion that
organisational structure effects marketing performance
under different environmental context. The performance
dimension is concerned with effectiveness, efficiency and
adaptiveness and the different competitive strategies may
require different organisational structure for desired
result.

The above two studies relate control and efficiency
with the competition and organisational structure. But
they do not give the idea as to how, the control can be
exercised.

1.4 Control tools and Framework

Feder\textsuperscript{18}, proposed that to measure effectiveness of
marketing two elements are required -- a financial tool to
measure profit in each market area and the market research
data documenting the variables affecting profitability in
each area. The key items should be selected for analysis
of the market.

In their study Hulbert and Toy\textsuperscript{19} have presented the
framework for marketing control based on accounting concept
of variance analysis and demarcate three major indicators
namely, total market size, market share and price/cost per
unit where evaluation takes place on the basis of plan and
performance. The responsibilities are being fixed on the basis of decomposition which generates more useful insight into issues of marketing control. They have also identified the above indicators as key strategic variables.

Sharma and Achabal\textsuperscript{20} classified control models into yes-no control; post-action control and Steering Marketing Control Model (STEMCOM). They said that STEMCOM can be used in managerial control, annual plan control, efficiency and profitability control (at micro level). They suggested to prepare performance and target indices and with the help of control charts this model would assist in bringing actual performance as close as possible to targeted objective. It provides management with early warning signal that may call for a complete marketing audit.

Beik and Buzby\textsuperscript{21} stated that by tracing sales revenue to market segments and relating them with marketing cost, the marketing manager can improve his decision making. In their framework the costs are divided into basic and functional costs which are allocated by product and market segment separately. They also proposed to adopt mathematical programming and budgetary data to upgrade the analysis.

Kirpalani and Shapiro\textsuperscript{22} have broadly considered the techniques of cost and management accounting in evaluation of marketing efforts by product, segment, channel etc. The techniques proposed are cost classification (including
order processing and order generating) break even analysis, return on investment, Profit Oriented Decision (PROD) System, Product Review and Evaluation Sub-System (PRESS), financial ratios (including quick ratio) and variance analysis.

The above studies are mostly centered on marketing activities and provide framework for controlling marketing efforts.

Jaworski\textsuperscript{23} has developed a comprehensive picture of marketing control and notes that control can have consequences for the individual (psychological, role, behavioural and performance) and on the broader marketing unit. He criticised cybernetic paradigm, financial assessment of productivity and outcome focus and stated them the components of traditional marketing control system. Merchant\textsuperscript{24} has criticised Jaworski's normative statements.

The views expressed for improving the marketing effectiveness by Kotler\textsuperscript{25} are to firstly differentiate between marketing and sales effectiveness and then apply the marketing audit to assess it. Whereas Etgar\textsuperscript{26} suggested that centralised coordination improves the efficiency of distribution (marketing).

The studies sighted so far are prescriptive in nature and the reliance is more on accounting, financial and
auditing techniques. But a close look on the studies reveals that very few empirical data support their applicability in different industries.

1.5 Salesforce Control System

Cocanaugher and Ivancevich\textsuperscript{27} are of the opinion that no evaluation system completely satisfies any particular group of employees. Traditional form of evaluation have no outcome focus, ill defined personality traits, halo effect, central tendency, interpersonal bias etc. By their "behaviourally anchored rating scale" (BARS) the role conflict and role ambiguity in sales position, can be reduced.

Futrel, swan and Todd\textsuperscript{28} on the basis of empirical study suggested that goals and their importance should be made clear to the salesman and they should be provided periodic feedback of their performance. Churchill, Ford, Hartley and Walker\textsuperscript{29} have also studied the relational analysis and concluded that salespersons behaviour are much more controllable than the results; they should be judged solely on those phases of their jobs over which they exercise control, and the type of product sold influences between predictors and performance. In a similar type of study Anderson and Oliver\textsuperscript{30} have identified behaviour based and outcome based control of salesforce and concluded that environmental uncertainty requires behaviour based control; more objective the measure and more costly the behaviour
measurement, the more outcome control is recommended; outcome control is more feasible for small salesforce and behaviour for larger ones; control systems have behavioural impact on salesforce; and no single control system is "the best" in all circumstances.

Mowen, Keith, Brown and Jackson Jr\textsuperscript{31} have examined performance evaluation from an attribution perspective and concluded that bias is present in salesforce evaluation process, and sales managers used effort information exclusively to evaluate performance. Where Newton\textsuperscript{32} on the basis of his analysis described that performance index is influenced by effectiveness of reporting and job content is a critical factor affecting performance. Salesmen perceive quota and paper work as 'childish' or unnecessary and reduces performance.

In pursuit of salesforce control quotas are set and territories are determined. Winer\textsuperscript{33} concluded his study with the comment that salesmen are 'quota achiever' and not 'dollar maximiser' so the quota should be set at challenging level. But Darmon's\textsuperscript{34} finding is that salesman has certain income level they want to reach and they adjust their activities as per that income level.

Heschel\textsuperscript{35} recommended that for increased sales without added costs, the sales territories should be developed on the basis of potential where Ryans and
Weinberg\textsuperscript{36}, based on their study concluded that describing territories in terms of potential, concentration and dispersion might be much more useful in studies of territory sales response, than describing the territories in terms of potential and number of accounts.

For salesforce control purposes the stress on quota, territories and behaviour based evaluation are well documented but there are areas which have not been considered like sales budgeting, sales analysis and evaluation on the basis of responsibilities and calls. The other weakness of the studies sighted above are that their applicability in different industries have not been analysed.

1.6 Indian studies on Control

Limited number of Indian studies on control in general and marketing control in particular were found.

Bhattacharya and Camillus\textsuperscript{37} studied 90 Indian companies having 'mature' management control and suggested that effectiveness of control system particularly along the managerial dimension depends on how the system is implemented than on how it is designed.

In another study Mohanthy\textsuperscript{38} has taken the implementation problem of management control and concluded that the commitment is more when the managers consider the usefulness of the system. High clarity of understanding leads to high favourableness to high perceived usefulness.
and also to high commitment. He further expressed that during implementation of management control system, problems related with structure, managerial style, back-up information system and lack of clarity may be expected to arise.

This study was undertaken in one organisation only and is predominantly a study in relation to behaviour and not activities. Gandhi\textsuperscript{39} studied construction project with the objectives to design management control and to identify problem of implementation and found that management control system based on network techniques are perceived to be leading to improved performance during execution of the project. Where Ramesh\textsuperscript{40} studied the control problems in a state owned, non-profit professional organisation (hospital). Most of the studies sighted above are behaviour based. Similar is the case with the study of Jain\textsuperscript{41} where the behavioural impact of budgeting have been highlighted based on attitudinal survey of a cross-section of industries executives.

Singh\textsuperscript{42} R.N. has identified, effective consumer service, productivity of system operation, effective project planning and implementation, personnel development, profitability as key result areas for management control of Uttar Pradesh State Electricity Board. This is the only study which deals with key result areas (key variables).
But the identification is for the total organisation and not for marketing only. Bhadada\textsuperscript{43} studied management control problems in textile industries of Rajasthan where separate studies were made for production, finance and marketing control. The study is predominantly control process oriented and not practice and techniques oriented.

Premchunder\textsuperscript{44} has studied the problems of budgeting in two fertiliser companies of the country. This study is based on the data collected with the help of questionnaire and supported by a laboratory test. Basically, this study highlighted the inter-relationship between objective of budgeting and organisational variables. The study is behaviour based and is the only study which is related with control problem in fertiliser industry.

Till now the studies sighted show that most of the studies are behaviour based and very few are related with systems and techniques. The Indian studies have highlighted the management control problems except Bhadada's which has gone into the details of marketing control problems.

1.7 Literature Review for Indian Fertiliser Industry

The studies on fertiliser industry have been undertaken and most of the studies are related with performance of the industry. Evaluation of relative performance of different sectors in fertiliser industry with the help of capacity utilisation, profitability,
productivity and operating cost have been studied for different periods by Gupta\textsuperscript{45} and Dholkia\textsuperscript{46}.

Sharma\textsuperscript{47} has appraised the financial performance of fertiliser industry with the help of ratios over a period of seven years from 70-71 to 76-77. Parthasarthi\textsuperscript{48}, Sarma\textsuperscript{49} and Desai\textsuperscript{50} have undertaken studies for the consumption, production and factors effecting demand at regional basis respectively. The impact of liberalization on Fertiliser industry has been studied by Siddiqui\textsuperscript{51}, who concluded that it has been positive.

Very few case studies could be traced which deal with performance. Quadeer\textsuperscript{52} has evaluated the performance of Fertiliser Corporation of India (FCI) and suggested measures to improve the overall performance. Social responsibility of the same company has been evaluated by Quadeer\textsuperscript{53} in another study.

Numerous studies have been undertaken for distribution\textsuperscript{54} and logistics\textsuperscript{55}, packaging and handling\textsuperscript{56} dealer development\textsuperscript{57}, Pricing and subsidies\textsuperscript{58} and human resource development in marketing.\textsuperscript{59}

For increasing efficiency in marketing management Raza\textsuperscript{60} advocated a shift in product mix, change in structure of margin to dealers, forecasting at block level. Rao\textsuperscript{61} has studied the costing pattern of fertiliser
marketing in India and stated that 46% of the marketing cost goes to freight which occupies the highest position.

The studies sighted so far indicate that there is no dearth of literature on the various aspects of marketing but it is also true that marketing control system has not been studied. Some references are there but they can not be claimed to be serious studies in those areas.

Mehta\(^6\) has suggested that for profit planning in fertiliser industry budget and sales plan are used and for marketing control the management information system and marketing audit are in operation. But the study does not clarify their extent of use in the industry with empirical support.

Karunakaran,\(^\text{63}\) has highlighted that there are some efficiency barometers for salesforce in which sales call is one which is neglected and there is out of proportion use of quantitative analysis. Siridharan\(^6\) details the role and responsibilities of the salesperson in fertiliser industry but does not give the idea about their control. The above are few studies which have been discussed to give an overview of the work done in marketing control and fertiliser industry.

2. RESEARCH GAP

The literature review clarifies the fact that no serious attempt has been made so far to study the marketing
control systems in fertiliser industry. Barring few studies in marketing control that too can not be claimed to be indepth, no study could be traced having relevance with fertiliser industry. Considering this gap it is proposed to study in detail the application of marketing control systems in public sector fertiliser industry with the following objectives.

3. OBJECTIVES OF THE STUDY

The objectives have been laid down into two categories, broad objective and specific objectives.

Broad objective: The broad objective of research is to study the marketing control practices in public sector fertiliser industry to highlight deficiencies of the system and their underlying causes which will enable in proposing improvements in the system for enhancing efficiency and effectiveness of marketing efforts.

Specific objectives: Based on the above stated objective, the specific objectives have been stated as under:

1. To study the marketing control practices applied by the public sector fertiliser industry.
2. To examine the systems adopted for salesforce control.
3. To investigate the application of Accounting techniques in marketing control.
4. To identify the marketing key variables for effective implementation of marketing control systems.
5. To investigate the deficiencies in the systems for proposing improvements in the present system.

4. FRAMEWORK OF THE STUDY

The framework of the study has been prepared based on specific objective to facilitate the data collection, presentation of the cases, their analysis and interpretation.

4.1 Marketing control practices:
(i) To investigate the types of marketing control systems adopted in the industry.
(ii) To analyse the periodicity of control under different types of control.
(iii) To study the reporting pattern of different control practices.
(iv) To analyse the application of efficiency measurements for advertisements, sales promotion and distribution.
(v) To investigate the components, periodicity and agencies involved and action taken in marketing audit.
(vi) To study the types of corrective actions generally taken under different types of control.

4.2 Salesforce Control Systems
(i) To investigate the methods of determining territories.
(ii) To investigate the types of sales quota used for salesforce control.

(iii) To study the application of sales budgeting for salesforce control.

(iv) To analyse the salesforce efficiency with the help of calls, selling expenses, responsibilities and behaviour.

(v) To study the actions taken in case of non-performance of salesforce.

4.3 Accounting techniques in marketing control

(i) To study the application of ratio analysis for marketing input and output control

(ii) To examine the extent of use of budgeting for marketing activities.

(iii) To study the types of variances used in marketing activities control.

(iv) To examine the application of responsibility centre concept for evaluation of marketing organisation.

4.4 Key Marketing Variables

(i) To identify the key variables that are sensitive to marketing objectives.

(ii) To locate the key input variables for marketing control

(iii) To locate the key output variables for marketing control.
(iv) To determine the priority order of the different key marketing variables for control.

5. NATURE OF RESEARCH

Research is exploratory in nature to analyse and evaluate the application of marketing control systems in Public sector fertiliser industry.

6. SCOPE OF THE STUDY

To have a clear focus and to limit the boundaries, it is necessary to determine the scope of study.

(1) The study is of marketing control systems as they are applied in public sector fertiliser industry.

(2) In case of marketing control systems the control exercised at marketing division level has been considered. The systems of control for salesforce have also been studied. Zonal, Regional and Area level control are not within the scope of study.

(3) Methods of setting of standards for control have not been studied because the problems of control arise only when the system is implemented. Moreover, target setting is the job of planning and not of control.

(4) Fertiliser companies other than public sector are not falling within the scope of study. Those companies which are not under the direct control of Ministry of Fertilizers and Chemicals are also out of the scope of the study.
(5) The time period of study is from 1990 to 1992. If any system or techniques was applied before this period is outside of the scope of study.

7. SAMPLING PROCEDURE

The samples have been drawn from the public sector fertiliser industry on the basis of rejection-selection criteria.

(i) The study is confined to public sector fertiliser industry so all the companies of private and co-operative sectors have been excluded.

(ii) The companies which are basically engaged in some other activities but produce and market fertilisers as their by-products or as supplementary business have been excluded from the study. Such companies are SAIL, NLC and HCL.

(iii) The companies which are meant for the purpose of design, engineering, consultancy, R&D and production of chemicals for fertilisers but not fertilisers have been excluded. One company, PDIL is having the above described features.

After eliminating the above companies the remaining companies are eight in number. There are two types of fertilisers produced in India, Nitrogenous (N) and Phosphatic (P₂O₅).
To have a fairly representative sample, companies were divided as per nutrient production:

(i) Companies producing Nitrogenous fertilisers; and
(ii) Companies producing phosphatic fertilisers

If a company is producing both nutrient then the installed capacities of both the nutrients have been comparatively studied and that product whose capacity is more has been considered for the placement of the company in that product category. Based on the above condition the companies have come up like this:

- Nitrogenous fertilisers: 6
- Phosphatic fertilisers: 2

Total: 8

On the basis of stratified random sampling, it was proposed to select the companies in proportion of 3:1 from both the categories. The multiple criteria of capacities, profitability, entry into the business of fertilisers were considered and these companies were finally selected. From Nitrogenous category, FCI, HFC and NFL and from phosphatic category PPCL were selected making a total of 4 companies and representing a sample of 50% of the population. These companies are satisfying many other parameters also.

As per the Annual Report published by Department of Fertilizers, Government of India in 1990-91 NFL and PPCL are Profit earning companies where FCI and HFC are
sustaining losses. In terms of their standing in marketing fertilisers, FCI is the oldest public sector (1961) where PPCL is the new entrant (1988) in the field. NFL and HFC were incorporated and re-organised in 1974 and 1978 respectively.

In terms of range of installed capacities, NFL is having the minimum of 1036 thousand MT of Nitrogen and PPCL is having maximum among all with 77 thousand MT of phosphate per annum. FCI and HFC are having annual capacities of 806 and 653 thousand MT of nitrogen capacities respectively. The number of units producing fertilisers with each company are PPCL (2), HFC (3), NFL (4) and FCI (4).

The above discussion highlights that the companies selected are fairly large in number and they are satisfying the different other parameters also. This will enable in generalizing the conclusions drawn for the industry as a whole:

8. DATA COLLECTION METHODS

8.1 Primary data

As per the objectives laid down earlier it was decided to prepare a detailed questionnaire to be administered in the organisations and a pilot study for that purpose was undertaken. In course of discussion it became clear that the terms used in the questionnaire were not understood in the manner for which they were asked.
There was chance that if a questionnaire based study is undertaken, the informations will be misleading and will effect the interpretation of the result. The other problem in general with the questionnaire is that unidirectionally, they travel down-ward for information. Planning and control systems are of such nature that the executives of a particular level understand them properly. Due to these causes it was considered better to have face to face indepth interview of different level executives and a detailed check-list was prepared for three different types of executives (given in Appendix I).

For marketing control systems and key variables, the interviews were conducted with top level Marketing executives who are stationed at Marketing Division. To have the informations for salesforce control system data were collected from Regional or Area Managers who are supervising the salesforce. The data for accounting techniques for marketing control were gathered from Marketing Research, Information Section, Accounts or Finance Section attached with marketing divisions.

8.2 Secondary data

Secondary data were also required for the analysis of industry and understanding of fertiliser marketing. Many sources of informations were considered. Reliance was mainly on Fertiliser Association of India (FAI), New Delhi,
and Ministry of Chemicals and Fertilizers. The publications of FAI are many -- Fertiliser Statistics, Fertiliser News, Fertiliser Marketing News, Proceedings of yearly Seminar on Fertiliser etc. These publications were scanned for current informations. The Ministry publishes its Annual Report detailing about the different aspects of the performance of the organisations. The publications of Fertiliser Development and Consultation Organisation (FDCO), New Delhi were also used for this purpose. The industry related matters published in different journals, magazines and dailies were consulted for recent informations and analysis. In secondary data collection suitability, adequacy and authenticity were always kept in consideration and mostly they were cross-checked.

9. PROBLEMS IN DATA COLLECTIONS

Many types of problems were faced during the course of data collection from both primary and secondary sources. (i) The access to the basic documents like organisation charts, financial targets, performance, actions initiated etc. were never allowed. Secondly, the financial data were presented in different forms in different organisations and sometimes latest data were for nine months period or provisional estimates which used to reduce confidence and comparability. (ii) In case of primary data collection, wide ranging problems were faced. One of the causes for dropping
the idea of data collection with the help of questionnaire was that at the time of pilot study the executives of one company flatly refused to fill it by saying that the top management has restricted to provide informations unless the questionnaire is duly passed from the Ministry concerned.

(iii) The disbelief of respondents towards research in general and presentation and analysis in particular was the constraint in data collection.

(iv) When the interview was possible in the second part of the day, casualness in response was evident, reducing the confidence in authenticity of informations provided. Less number of interviews could be conducted than planned and the informations were not in standardised form.

(v) Some respondents discouraged to contact the other executives in the Division so that whatever they have said should be treated as correct and authentic. To counter this feeling, after a time lag, second or third visit was made which ultimately took too much time in data collection.

Though the problems encountered were many and the study was conducted under constraints but the sustained effort was made to authenticate the information and to
bring them in a standardised form for analysis and interpretation.

10. PRESENTATION OF DATA AND ANALYSIS

The case method has been adopted for the study of marketing control systems. The presentation is predominantly as per the objectives of the study. While presenting the informations it was considered to standardise them as far as possible unless otherwise demanded by the situation. Special care has been taken in presentation of the case that the criticism, observation, suggestions etc. either of the respondents or of the researcher should be avoided. The bare facts about the implementation of control system have been described in the case discussion.

The analysis of the cases have been presented in chapter VIII where the comments, observations, suggestions of the respondents have been incorporated. The first part of the chapter evaluates the control system being applied in the respective companies. They are supported with exhibits alongwith the brief description and comments. In the second part of the chapter control system has been evaluated for the industry as a whole so that based on the findings suggestions should be put forward in the next chapter which satisfies the last objective of the study. The pattern of presentation and analysis adopted in this
chapter is with the idea that the study should retain the spirit of case method.

11. OPERATIONAL DEFINITION

The purpose of giving operational definitions is to have an understanding about those terms which have been used in the project frequently and with some special reference.

1. Comprehensive: The analysis or application of any technique or system of control is said to be comprehensive when they have been applied by the company or industry more frequently, for more break-up or variables with different corrective actions.

2. Seasonal analysis: This represents the analysis on the basis of Rabi and Kharif seasons and they have been considered as half-yearly analysis or mid-year review also.

3. Mid-period review: It means the review of the plan implementation during the operation of the plan. It may be quarterly, half-yearly depending upon the nature of the plan or programme under implementation.

4. Futuristic control: This term is used for controlling or taking corrective action not during the current period but in future period. Where the evaluation is yearly and plans are made on yearly basis or where change in operation is not possible during the current
period, but based on the analysis some changes are made in future period, the control is said to be futuristic.

5. Indepth analysis: This term is used where the inputs or outputs and their components are analysed by more than one indicators which may give similar results or varying results.

6. Promotion: It includes advertising and sales promotion both. Promotion and publicity as well as extension services are forming the parts of sales promotion.

7. Monthly through yearly: It has been used for periodicity of analysis, monthly being the lowest period and highest being the annual. Within these two limits are quarterly, seasonal and half-yearly analysis.

8. Salesforce: The salespersons who may be sales officers, field representatives, or salesmen and are working in the market among dealers and customers are called salesforce.

9. Gross Profit to Sales ratio: This ratio represents the gross profit in respect of sales and is calculated by Gross Profit/Sales x 100. A lower ratio shows a fall in price in the market or reduction in selling price by the firm, cost of goods remaining unchanged.

10. Net profit to Sales ratio: This ratio establishes relationship between net profit and sales and indicates
the efficiency in manufacturing, administering and selling product. This is calculated by Net Profit after tax/sales x 100.

11. Inventory Turnover ratio: This ratio is calculated by Sales/average inventory. A high inventory turnover ratio is an indicator of good inventory management and low turnover inefficient inventory management.

12. Debtors to Sales ratio: This ratio represents the debtors in terms of sales made and is an indicator of the credit sales and credit policy of the company. It is calculated by Debtors/Sales x 100.

13. Average collection period: This indicator also helps in understanding firms' credit policy and represents average number of days for which the firm must wait after making credit sales. It is calculated by Debtors x days in the year/sales.

14. Fertilisers: They are essentially chemical fertilisers and not bio-fertilisers or manures.

15. Industry: Industry refers to the fertiliser industry in general and public sector fertiliser industry in specific terms.

12. LIMITATIONS OF THE STUDY

The followings are the major limitations of the study.

(1) The study is limited to public sector fertiliser companies and the others like cooperative, and...
private sector which jointly constitute more than 50% of the total installed capacity of production have been excluded.

(2) Only marketing control systems have been studied whereas controls are applied in other functional areas and at the top management level also.

(3) Only two levels of marketing control systems have been investigated: Divisional and Salesforce where the other levels have been excluded namely Zonal and Regional etc.

(4) The views expressed by the executives at the Divisional level have been accepted for (other than Salesforce Control System) analysis. The executives at Regional and Area level have not been considered for this purpose. On the similar pattern, the salesforce have not been contacted in this study and their perception about control and the control system is not known.

(5) From the angle of marketing mix, control has been considered but for limited elements. This is not by chance but by choice as the nature of the industry is as such.

Time and money have been the constraints so the limited number of techniques could be studies.
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45. Gupta, Meena; Performance of Fertiliser Industry an Inter-Sectoral Analysis (unpublished Thesis), University of Delhi, 1979, pp.5-6.


CHAPTER-III
INDUSTRY PROFILE AND MARKETING OF FERTILISERS IN INDIA

The purpose of this chapter is to give an account of present state of affairs of fertiliser industry with special reference to public sector. The additional dimension included in the marketing of fertilisers in India. Thus, the chapter has been divided into two sections, namely, Industry Profile and Fertiliser Marketing.

SECTION-1
INDUSTRY PROFILE

1. DEVELOPMENT OF FERTILISER INDUSTRY IN INDIA

The chemical fertiliser production in India started with 6,400 tonnes of Single Super Phosphate (SSP) per annum when the first unit was set up in 1906 by the house of EID - Parry (India) Ltd (then Parry & Co) in Ranipet near Madras in the State of Tamil Nadu. This was followed by the production of ammonium sulphate as a by-product by Tata Iron and Steel Company (TISCO) at Jamshedpur in 1919.¹ The next company which established a fertiliser factory in Ambernath (Maharashtra) in 1924 was Dharamsi Morarji Chemicals Co. Ltd. (DMCC).²

The first chemical nitrogenous plant was Mysore Chemicals and Fertilisers, set up in 1939 at Belagula in
Karnataka to manufacture synthetic ammonia based on electrolysis of water. But the large scale nitrogenous fertiliser plant, Fertilisers and Chemicals Travancore Ltd (FACT) was set up in 1947 at Alwaye in Kerala by using wood gassification process for making ammonia for the first time in the world. This was the modest beginning and all the companies mentioned above were in the hands of private entrepreneurs.

Entry of Public sector in Fertiliser Industry

The conditions created by Japan's attack on Burma in 1942 and Bengal Famine in 1943, the British Government appointed a Food Policy Committee headed by G.S. Gowing that concluded that Indian soil was deficient in nitrogen and phosphorus. Another committee was set up in 1945 to search the possibilities of setting up of a fertiliser plants at suitable locations. The committee recommended Harduaganj (UP) or Sindri (Bihar) to produce ammonium sulphate. Due to sufficient availability of coal and water it was decided to set up a plant at Sindri. The work on the plant started in 1946 and the production of Sindri Fertilisers and Chemicals Ltd. (SFCL) commenced on 31st Oct., 1951 which was a 'Diwali Day'. This was the first public sector fertiliser plant.

The output of Sindri Plant was insufficient and the government set up a committee in 1954 for setting up few
more plants. The committee recommended new sites at Nangal, Neyveli, Rourkela and Trombay. Ultimately a plant at Nangal was commissioned which was owned by another government company Hindustan Chemicals and Fertilisers Ltd. (HCFL). Fertiliser Corporation of India (FCI) was formed by merging both the companies SFCL and HCFL in 1961. At FCI, Sindri, production of urea commenced for the first time in India in 1959. The government policy to increase the production capacity of fertilisers led to addition of many more plants in public, private and co-operative sectors.

During the decade of 1960s considerable growth witnessed in this industry. FACT II and III Phases were completed. Neyveli Lignite Corporation was a major new entrant. The plants at Trombay, Durgapur, Namrup, Gorakhpur were added to the FCI. Hindustan Steels Ltd., Rourkela; EID - Pary, Ennore; Gujrat State Fertiliser Corporation, Baroda; Coromandel Fertilisers, Vishakhapatnam; IEL, Kanpur and Shriram Chemicals Industries Ltd., Kota were the other units which went into production in that decade.

During 1970s some more plants were commissioned and some plants were expanded. Madras Fertilisers Ltd. Madras; Zuari Agro Chemicals Ltd., Goa; National Fertilisers Ltd., Batinda and Panipat; Indian Farmers and Fertilisers Co-operative Ltd., Kalol and Kandla; FCI, Talchar, Ramagundum
and Brauni were set up. Some plants which went for expansion were FACT, SCI, Kota; CFL, Vizag; FCI, Namrup, Nangal, Trombay; SAIL, Bokaro; MFL, Manali.8

The major event of the decade for fertiliser industry was the re-organization of FCI and NFL in 1978 resulting into creation of two more companies Rashtriya Chemicals and Fertilisers Ltd. (RCF) and Hindustan Fertilisers Corporation Ltd. (HFC). At that time FCI was managing the following plants:

1. Sindri (Bihar) 7. Durgapur (West Bengal)
2. Nangal (Punjab) 8. Ramagundam (Andhra Pradesh)
3. Trombay (Maharashtra) 9. Talcher (Orissa)
5. Namrup (Assam) 11. Haldia Division (W.B.)
6. Barauni (Bihar) 12. Planning and Development Division (Sindri, Bihar)9

After re-organization, the following companies with their plants came into existence.

FCI  - Sindri, Gorakhpur, Ramagundum, Talcher and Korba Division

NFL  - Nangal, Panipat and Bhatinda

RCF  - Trombay

HFC  - Brauni, Durgapur, Namrup and Haldia Division

Fertiliser (Planning and Development India Ltd.)

(Now Projects and Development India Ltd. [PDIL])
In the decade of 1980's the major plants commissioned include a phosphatic fertiliser plant, Paradeep Phosphates Ltd., Paradeep (Orissa); RCF, Thal Vaish; NFL, Vijaipur; IFFCO, Anola and Phulpur; Indo-Gulf Fertilisers and Chemicals Ltd., Jagdishpur. Some plants went for expansion like Trombay and Namrup. PPCL which was basically a mining company, started manufacturing and marketing fertilisers in 1988.

Apart from the above, as on 1st April, 1990, nine projects were under implementation -- three in the public sector (FACT, Cochin; PPL, Paradeep and HFC, Haldia) and six in private sector (GNFC, Bharuch; DPCL, Taloja; Nagarjuna Fertiliser, Kakinada; Tata Chemicals, Babrala; CFCL, Gadepan; and Bindal AGro, Shahjahanpur).

2. INVESTMENT IN FERTILISER INDUSTRY:

The total financial outlay of the industry has increased tremendously over the years. Investment in public sector has been much more higher than the private and co-operative sectors. But the share of investment of public sector has decreased in recent years. During 1950s and 1960s the share used to be around 90% which has now come down upto almost 52%. The share of private and co-operative sectors has increased over the years. Table 3.1 gives the idea about the investment in Fertiliser industry.

The overall increase of investment in Fertiliser
industry from the first five year plan to seventh five year plan has been 143 times and the public sector investment increased by more than 100 times.

TABLE 3.1: Sector-wise Investment in Fertiliser Industry

<table>
<thead>
<tr>
<th>Year</th>
<th>Public Sector</th>
<th>Cooperative Sector</th>
<th>Private Sector</th>
<th>Total</th>
<th>% of Public Sector to Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955-56</td>
<td>60.4</td>
<td>-</td>
<td>4.5</td>
<td>64.9</td>
<td>93</td>
</tr>
<tr>
<td>1965-66</td>
<td>178.7</td>
<td>-</td>
<td>18.0</td>
<td>196.7</td>
<td>91</td>
</tr>
<tr>
<td>1973-74</td>
<td>466.3</td>
<td>-</td>
<td>316.8</td>
<td>782.9</td>
<td>60</td>
</tr>
<tr>
<td>1985-86</td>
<td>3507.0</td>
<td>331.1</td>
<td>1262.5</td>
<td>5100.4</td>
<td>69</td>
</tr>
<tr>
<td>1988-89</td>
<td>4827.4</td>
<td>1954.1</td>
<td>2514.6</td>
<td>9295.9</td>
<td>52</td>
</tr>
<tr>
<td>1989-90</td>
<td>4855.8</td>
<td>1954.1</td>
<td>2524.2</td>
<td>9333.9</td>
<td>52</td>
</tr>
<tr>
<td>1990-91</td>
<td>6047.5</td>
<td>1954.1</td>
<td>3537.4</td>
<td>11541.0</td>
<td>52</td>
</tr>
</tbody>
</table>


3.1 Size of the Industry:

During the last 40 years the installed capacity of the industry has increased from 1.12 lakh tonnes of nitrogen and phosphate in 1950 to 109.82 lakh tonnes registering a rise of almost 100%. In 1950s and 1960s, the phosphatic fertilisers capacity was occupying prime position but from 1970s the installed capacity of
nitrogenous fertilisers increased more than the phosphatic fertilisers. Presently, the nitrogenous fertilisers constitute 74.8% of the total installed capacity which was 48.5% in 1960-61. The Table 3.2 gives the annual installed capacity of fertiliser production in India and depicts that the capacity increase has been more or less the same in the second half of eighties.

Table 3.2: Annual Installed Capacity of Fertiliser Industry  
(in lakh tonnes of Nutrient)

<table>
<thead>
<tr>
<th>Year</th>
<th>Nitrogen (N)</th>
<th>Phosphate (P)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950-51</td>
<td>0.10</td>
<td>1.02</td>
<td>1.12</td>
</tr>
<tr>
<td>1960-61</td>
<td>1.21</td>
<td>1.28</td>
<td>2.49</td>
</tr>
<tr>
<td>1973-74</td>
<td>19.47</td>
<td>5.81</td>
<td>25.28</td>
</tr>
<tr>
<td>1979-80</td>
<td>39.02</td>
<td>12.84</td>
<td>51.86</td>
</tr>
<tr>
<td>1986-87</td>
<td>67.62</td>
<td>23.18</td>
<td>90.80</td>
</tr>
<tr>
<td>1987-88</td>
<td>70.84</td>
<td>24.71</td>
<td>95.55</td>
</tr>
<tr>
<td>1988-89</td>
<td>81.59</td>
<td>26.69</td>
<td>108.28</td>
</tr>
<tr>
<td>1989-90</td>
<td>81.47</td>
<td>27.16</td>
<td>108.63</td>
</tr>
<tr>
<td>1990-91</td>
<td>81.47</td>
<td>27.51</td>
<td>108.98</td>
</tr>
<tr>
<td>1991-92</td>
<td>82.11</td>
<td>27.71</td>
<td>109.82</td>
</tr>
</tbody>
</table>

Source: Fertiliser Statistics 1990-91, Fertiliser Association of India, New Delhi, Table I-1.05.

Note: The figures for 1950s to 1970s are upto 31 Dec. where for 1980s and 1990s are upto 1st Oct.
3.2 Sectoral Structure:

Fertiliser being in core sector industry, its development is the responsibility of the government but we find that all the three sectors -- private, public and co-operatives are represented in this industry. There is dominance of public sector in nitrogenous fertilisers and private sector in phosphatic fertilisers. The Table 3.3 illustrates the present installed capacity of all the sectors.

Table 3.3: Sector-wise capacity and their share (90-91)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Nitro- Share of</th>
<th>Phos- Share of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>43.32 53.2</td>
<td>8.19 29.8</td>
</tr>
<tr>
<td>Co-operative</td>
<td>15.32 18.8</td>
<td>3.09 11.2</td>
</tr>
<tr>
<td>Private</td>
<td>22.84 28.0</td>
<td>16.22 59.0</td>
</tr>
<tr>
<td>Total capacity</td>
<td>81.48 100.0</td>
<td>27.50 100.0</td>
</tr>
</tbody>
</table>

Source: Annual Report 1990-91, Department of Fertilisers, Ministry of Chemicals and Fertilisers, Government of India, New Delhi, pp.48-49.

The public and co-operative sectors are accounting for 72% of installed capacity of nitrogen and 41% of phosphates. The private sector is dominating in phosphate production by occupying 59% of the installed capacity. The public sector occupies 47% of the total installed capacity of the industry.
Presently 145 plants are manufacturing fertilisers of different range out of which 90 units are engaged in the production of single super phosphates (58 units in organised and 32 units in unorganised sector). The other 55 units are manufacturing nitrogenous, phosphatic and complex fertilisers. The unorganised sector constitutes 1.6 lakh tonnes of SSP production capacity which is 19% of the total SSP production capacity.\(^1^2\)

The projects under implementation during 1990-91 were six in private sector for producing 13.51 lakhs tonnes of nitrogen and 0.86 lakh tonnes of phosphate and three were in public sector for the capacity of 3.76 lakh tonnes of nitrogen and 7.2 lakh tonnes of phosphate. Out of these three, two were commissioned during the period.\(^1^3\) Some more projects in all the three sectors are under consideration for doubling their capacities. Only one project is a joint venture abroad in which India has participated. The plant is located in Senegal and produces phosphoric acid and phosphatic fertilisers. Another joint venture has been approved by the Government of India for Jordan and few other proposals are being processed.\(^1^4\) In all these projects there is no involvement of public sector.
4. FEEDSTOCK FOR FERTILISER PRODUCTION

The commonly used feedstocks are natural gas, naphtha, fuel oil, coal, coke oven gas and external supply of ammonia. As on 1st Oct. 1991 the share of naphtha in total nitrogen capacity was 30%.\(^{15}\) This consumption has fallen from 48%\(^{16}\) in 1983-84 and none of the on-going projects in various stages of implementation are naphtha based. Only a small percentage of 5.6 is coal based and their performance have never been satisfactory in terms of capacity utilisation\(^{17}\) though India is having the largest coal based fertiliser plants of its kind in the world.\(^{18}\) The poor performance is due to inadequate supply and inferior quality of coal.\(^{19}\) The other feedstock is the fuel oil whose share in total nitrogen capacity as on 31st Oct. 1991 was 15.2%\(^{20}\) which was 22.6% in 1983-84.\(^{21}\) Coke oven gas and ammonia (external supply) constitute 7.6% share of the total nitrogenous capacity.\(^{22}\) As on Oct. 1991 there were ten gas based plants (4 in public sector, 3 in private sector and 3 in co-operative sector) accounting for 42%\(^{23}\) of the installed nitrogenous capacity which constituted only 22.6% in 1983-84.\(^{24}\) A comparative study shows that the capital cost is lowest for gas based plants and the cost of production which largely depends on feedstock is lowest for naphtha based followed by fuel oil and natural gas and highest for coal based plants.\(^{25}\)
5. PERFORMANCE AND GROWTH OF FERTILISER INDUSTRY

The industry has been instrumental in increasing the foodgrain production leading to self-sufficiency. The domestic production of fertilisers satisfies the consumption requirements upto 72% of nitrogenous, phosphatic and potassic fertilisers taken together. As potassic fertilisers are not produced in India and the country fulfills its requirements completely from import, if it is excluded from the consumption, the domestic production is satisfying more than 80% of the consumption requirements.

5.1 Production Performance: India is the fourth largest producer of nitrogenous fertilisers in the world after China, USSR, and USA and occupies the same position in case of phosphatic fertilisers after USA, USSR and China.26

Production growth of the industry can be seen in Table 3.4. The total production of fertilisers in 1951-52 was 39,000 tonnes which increased upto about 41 lakh tonnes in 1981-82. The production has always been increasing over the years during the last decade except 1989-90 when it decreased marginally by 0.5% over its previous year.

Production of nitrogen nutrient increased from 54.7 lakh tonnes in 1987-88 to 72.66 lakh tonnes in 1991-92 (an increase of 33%). Similarly the production of phosphate nutrient has increased from 16.6 lakh tonnes in 1987-88 to
Table 3.4: Production of Fertiliser Nutrients

<table>
<thead>
<tr>
<th>Year</th>
<th>Nitrogenous (lakh tonnes)</th>
<th>Phosphatic (lakh tonnes)</th>
<th>Potassic (lakh tonnes)</th>
<th>Total (lakh tonnes)</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951-52</td>
<td>0.29</td>
<td>0.10</td>
<td>-</td>
<td>0.39</td>
<td>-</td>
</tr>
<tr>
<td>1961-62</td>
<td>1.54</td>
<td>0.65</td>
<td>-</td>
<td>2.19</td>
<td>461</td>
</tr>
<tr>
<td>1971-72</td>
<td>9.49</td>
<td>2.90</td>
<td>-</td>
<td>12.39</td>
<td>466</td>
</tr>
<tr>
<td>1981-82</td>
<td>31.43</td>
<td>9.50</td>
<td>-</td>
<td>40.93</td>
<td>230</td>
</tr>
<tr>
<td>1986-87</td>
<td>54.12</td>
<td>16.61</td>
<td>-</td>
<td>70.73</td>
<td>72</td>
</tr>
<tr>
<td>1987-88</td>
<td>54.65</td>
<td>16.66</td>
<td>-</td>
<td>71.31</td>
<td>0.8</td>
</tr>
<tr>
<td>1988-89</td>
<td>67.12</td>
<td>22.52</td>
<td>-</td>
<td>89.64</td>
<td>25</td>
</tr>
<tr>
<td>1989-90</td>
<td>67.47</td>
<td>17.95</td>
<td>-</td>
<td>85.42</td>
<td>(0.5)</td>
</tr>
<tr>
<td>1990-91</td>
<td>69.93</td>
<td>20.51</td>
<td>-</td>
<td>90.44</td>
<td>6</td>
</tr>
<tr>
<td>1991-92</td>
<td>72.66</td>
<td>25.85</td>
<td>-</td>
<td>98.51</td>
<td>9</td>
</tr>
</tbody>
</table>


25.85 lakh tonnes in 1991-92 (an increase of 56%). The production of all fertilisers in 1991-92 has increased by 38% over the production of 1987-88 and increased by 141% from 1981-82. This increase was 230% during 62-72 period. The public sector has contributed 28.9 and 28.7 lakh tonnes of nitrogen nutrient and 4.4 and 5.1 lakh tonnes of phosphate nutrient in the period of 1989-90 and 1990-91. Its contribution to the total production of nitrogen
nutrient in 1990-91 was 41% and 25% in case of phosphate. The contribution to the total production of nitrogenous and phosphatic nutrient has been merely 37% in 1990-91.27

5.2 Capacity Utilisation: The capacity utilisation of the industry has been very low in sixties and seventies. They usually ranged between 40-60% of the installed capacity. In 1965-66 the utilisation of nitrogenous and phosphatic fertilisers capacities were 51% and 43% respectively and in 1973-74 they were 54% and 56% respectively. Table 3.5 shows the utilisation of capacity.

Table 3.5: Capacity utilisation of Fertiliser Industry (in percentage)

<table>
<thead>
<tr>
<th>Year</th>
<th>Nitrogenous</th>
<th>Phosphatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965-66</td>
<td>51</td>
<td>43</td>
</tr>
<tr>
<td>1973-74</td>
<td>54</td>
<td>56</td>
</tr>
<tr>
<td>1979-80</td>
<td>57</td>
<td>59</td>
</tr>
<tr>
<td>1985-86</td>
<td>76</td>
<td>69</td>
</tr>
<tr>
<td>1986-87</td>
<td>79</td>
<td>80</td>
</tr>
<tr>
<td>1987-88</td>
<td>78</td>
<td>72</td>
</tr>
<tr>
<td>1988-89</td>
<td>85</td>
<td>87</td>
</tr>
<tr>
<td>1989-90</td>
<td>83</td>
<td>65</td>
</tr>
<tr>
<td>1990-91</td>
<td>86</td>
<td>75</td>
</tr>
<tr>
<td>1991-92</td>
<td>88</td>
<td>93</td>
</tr>
</tbody>
</table>

There has been low capacity utilisation in mid-eighties, which has increased in the later half of the eighties and it touched 86% and 85% of nitrogenous capacity in 1990-91 and 1991-92 respectively and 75% and 93% of phosphate capacity during the same period. The problem of low performance is confined, essentially to the old and sick units and due to unstable power supply, defective design and equipments etc. Apart from that there are some plants which have achieved more than 100% of the capacities where some could not achieve even 10% in 1990-91. The other analysis is that after the introduction of subsidies the capacity utilisation position has fared well.

The capacity utilisation varies sector-wise also. In both the categories of fertilisers co-operative sector has shown better capacity achievement than the other two sectors and the public sector has always been at the lower side. In case of nitrogenous fertilisers the public sector has achieved about 66% of capacities in the later years of eighties but in phosphatic fertilisers sometimes it has crossed more than 70%. The Table 3.6 gives the sectoral capacity utilisation.
Table 3.6: Sector-wise capacity utilisation

<table>
<thead>
<tr>
<th>Sector</th>
<th>1986-87</th>
<th>87-88</th>
<th>88-89</th>
<th>89-90</th>
<th>90-91</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogenous:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector</td>
<td>54</td>
<td>66</td>
<td>71</td>
<td>67</td>
<td>66</td>
</tr>
<tr>
<td>Co-operative Sector</td>
<td>93</td>
<td>100</td>
<td>111</td>
<td>108</td>
<td>112</td>
</tr>
<tr>
<td>Private Sector</td>
<td>99</td>
<td>87</td>
<td>98</td>
<td>97</td>
<td>105</td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>78</td>
<td>85</td>
<td>83</td>
<td>86</td>
</tr>
<tr>
<td>Phosphatic:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector</td>
<td>72</td>
<td>66</td>
<td>86</td>
<td>54</td>
<td>62</td>
</tr>
<tr>
<td>Co-operative Sector</td>
<td>111</td>
<td>94</td>
<td>96</td>
<td>72</td>
<td>75</td>
</tr>
<tr>
<td>Private Sector</td>
<td>77</td>
<td>70</td>
<td>85</td>
<td>70</td>
<td>81</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>72</td>
<td>87</td>
<td>65</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: Annual Report 1990-91, Department of Fertilisers, Ministry of Chemicals and Fertilisers, Government of India, New Delhi, p.50.

5.3 Profitability of Public Sector Fertiliser Industry

The conditions of public sector so far discussed is indicative that they are operating with under utilised capacities. Naturally, the profitability is bound to be effected adversely. Taking all the public sector units together, the contribution of the industry has always been negative. But at the same time, there are companies which have never given a net loss in last eight years. The net Profit/losses are given in Table 3.7.
Table 3.7: Profitability of Public Sector Fertiliser Industry
(Rs. in crores)

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Loss</th>
<th>Year</th>
<th>Net Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983-84</td>
<td>(86.01)</td>
<td>1987-88</td>
<td>(87.90)</td>
</tr>
<tr>
<td>1984-85</td>
<td>(1.73)</td>
<td>1988-89</td>
<td>(251.46)</td>
</tr>
<tr>
<td>1985-86</td>
<td>(126.52)</td>
<td>1989-90</td>
<td>(307.45)</td>
</tr>
<tr>
<td>1986-87</td>
<td>(104.34)</td>
<td>1990-91</td>
<td>(348.63)</td>
</tr>
</tbody>
</table>

Source: Annual Report, 1990-91, Department of Fertilisers, Ministry of Chemicals and Fertilisers, Government of India, New Delhi, p.54.

5.4 Consumption of Fertilisers: Consumption of chemical fertilisers was started by the tea and coffee planters at the end of nineteenth century and the requirements were met by import from Chile. In 1930s the use spread to sugarcane and rice also but the significant amount of consumption started after Bengal Famine and its use further spread widely after the introduction of HYV of crops in mid-sixties. Since then consumption has increased tremendously. In 1951-52 the consumption of fertiliser was 65 thousand tonnes which reached up to 134.9 lakh tonnes in 1991-92 (Table 3.8). The trend has been rising throughout the years but the growth has slowed down in the beginning of nineties than the later part of eighties. The increments over the years have been for both the nutrient (N and P2O5) but the fluctuation has been in case of K2O.
### Table 3.8: Consumption of Fertilisers Nutrients

<table>
<thead>
<tr>
<th>Year</th>
<th>Nitrogenous</th>
<th>Phosphatic</th>
<th>Potassic</th>
<th>Total</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951-52</td>
<td>0.59</td>
<td>0.06</td>
<td>-</td>
<td>0.65</td>
<td>-</td>
</tr>
<tr>
<td>1961-62</td>
<td>2.50</td>
<td>0.61</td>
<td>0.28</td>
<td>3.39</td>
<td>422</td>
</tr>
<tr>
<td>1971-72</td>
<td>17.98</td>
<td>5.88</td>
<td>3.00</td>
<td>26.86</td>
<td>692</td>
</tr>
<tr>
<td>1981-82</td>
<td>40.68</td>
<td>13.22</td>
<td>6.76</td>
<td>60.66</td>
<td>126</td>
</tr>
<tr>
<td>1986-87</td>
<td>57.16</td>
<td>20.78</td>
<td>8.50</td>
<td>76.44</td>
<td>26</td>
</tr>
<tr>
<td>1987-88</td>
<td>57.17</td>
<td>21.87</td>
<td>8.81</td>
<td>87.85</td>
<td>15</td>
</tr>
<tr>
<td>1988-89</td>
<td>72.51</td>
<td>27.20</td>
<td>10.68</td>
<td>110.39</td>
<td>26</td>
</tr>
<tr>
<td>1989-90</td>
<td>73.86</td>
<td>30.14</td>
<td>11.68</td>
<td>115.68</td>
<td>4</td>
</tr>
<tr>
<td>1990-91</td>
<td>79.66</td>
<td>32.86</td>
<td>13.24</td>
<td>125.76</td>
<td>9</td>
</tr>
<tr>
<td>1991-92</td>
<td>84.44</td>
<td>36.08</td>
<td>14.35</td>
<td>134.87</td>
<td>7</td>
</tr>
</tbody>
</table>


The consumption of fertilisers is more in Rabi crops than Kharif. The Rabi-Kharif ratio of consumption which was 61:39 in 1980-81 has changed to 54:46 in 1990-91 showing that the use of fertiliser has increased comparatively more in Kharif than Rabi.

The gross cropped area in India is 1729 lakhs hectares and the consumption per hectare of land varied in terms of period, states etc. The per hectare consumption in
1950-51 was 0.55 kg which rose to 78 kg in 1991-92. The average per hectare consumption in 1990-91 was 72.4 kg where the maximum consumption was 544 kg in Pondicherry followed by 171 kg in Punjab and 133 Kg in Andhra Pradesh and lowest being 1.2 kg per hectare in Arunachal Pradesh. The districts which consumed highest amount of fertilisers were Guntur and West Godavri in Andhra Pradesh and Ludhiana in Punjab. The use of fertiliser is narrow in case of Punjab and Haryana where three fertilisers - DAP, Urea and SSP constitute 96% of total nutrient applied and it is broad based in Andhra Pradesh and Karnataka where about 20 types of fertilisers are used.

In 1989-90, India was ranked 4th in consumption of both nitrogenous and phosphatic fertilisers after USSR, China and USA and 6th in K\textsubscript{2}O consumption after USSR, USA, France, China and Brazil. But in terms of per hectare consumption it is still far behind France, Korea and Japan. Its 69 kg per hectare consumption was not even comparable with Pakistan and Bangladesh where it has been 89 and 99 kg per hectare respectively in 1989-90.

5.5 Import of Fertilisers: Though India started to use fertilisers by importing it and presently ample quantities are imported from USA, Jordan, Canada, Kuwait, Senegal and Morocco etc. In early period of this century, it used to export as the production was more than the domestic
Table 3.9: Import of Fertiliser Nutrients

<table>
<thead>
<tr>
<th>Year</th>
<th>Nitrogenous</th>
<th>Phosphatic</th>
<th>Potassic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951-52</td>
<td>0.29</td>
<td>0.16</td>
<td>0.08</td>
<td>0.53</td>
</tr>
<tr>
<td>1961-62</td>
<td>3.07</td>
<td>-</td>
<td>0.75</td>
<td>3.82</td>
</tr>
<tr>
<td>1971-72</td>
<td>4.81</td>
<td>2.48</td>
<td>2.68</td>
<td>9.97</td>
</tr>
<tr>
<td>1981-82</td>
<td>10.54</td>
<td>3.43</td>
<td>6.44</td>
<td>20.41</td>
</tr>
<tr>
<td>1986-87</td>
<td>11.03</td>
<td>2.79</td>
<td>9.52</td>
<td>23.10</td>
</tr>
<tr>
<td>1987-88</td>
<td>1.75</td>
<td>-</td>
<td>8.09</td>
<td>9.84</td>
</tr>
<tr>
<td>1988-89</td>
<td>2.19</td>
<td>4.07</td>
<td>9.82</td>
<td>16.08</td>
</tr>
<tr>
<td>1989-90</td>
<td>5.23</td>
<td>13.11</td>
<td>12.80</td>
<td>31.14</td>
</tr>
<tr>
<td>1990-91</td>
<td>4.14</td>
<td>10.16</td>
<td>13.28</td>
<td>27.58</td>
</tr>
<tr>
<td>1991-92</td>
<td>5.03</td>
<td>9.01</td>
<td>11.00</td>
<td>25.04</td>
</tr>
</tbody>
</table>


consumption. In 1926-27 it exported 1 lakh tonne of fertiliser but after independence it emerged as the largest importer. Nutrients of all types are imported and potash requirement is fully met by import. The imports have changed over the years. During 1950s most of the imports were in the form of AS, CAN, ASN and MoP as finished fertilisers and sulphur and phosphate rock as
basic raw materials. But the import scene changed during 1970s when Urea and DAP emerged as the major nitrogen and phosphate carriers. The quantum of import of fertilisers and raw materials have increased sharply during 1980s but there has been fluctuations also as during 1986-87 and 1988-89 the import declined drastically and it further came down to almost 10 lakh tonnes in 1987-88 from 36 lakh tonnes in 1984-85. The Table 3.9 gives the import of fertilisers.

The Crf. value of total import which was Rs 716.62 crores in 1981-82 has increased by 114% in 1989-90 and by 86% in 1990-91. The increase in tonnage in 1991-92 from 1981-82 was to the tune of around 23%. The import of fertilisers are expected to continue as the additional capacities are not created at a pace as required by the agriculture and source of raw material for potassic fertiliser in India is not at all available.

SECTION-2
FERTILISER MARKETING IN INDIA

It is proper to understand the nature and composition of the market before discussing the marketing of fertilisers in this country.

There are about 5,57000 villages where 70% of total Indian population reside. They constitute 900 lakh
farming families spread over different parts of the country. 75% of the cultivating families are marginal farmers with landholding upto 2 hectares and are called 'subsistence farmer'; producing food mainly for self consumption. The total area has been divided into 460 districts. Out of these 75 districts account for 50% of total consumption and 147 districts for 75% of off-take of fertilisers. 30% of the total fertiliser consumption is used by small and marginal farmers. A wide spread network of about 2,30,000 retail outlets serve the fertiliser distribution. Of these 65% are in the private sector and 35% in the co-operative/state sector. 65% of the fertilisers are moved by rail and about 35% by road and a very negligible amount by sea.

Apart from the above, rural population of India is illiterate in general and tradition bound in particular, spread widely having low purchasing power, less exposed to most of the modern techniques of agriculture and agricultural inputs. These features inhibit the growth of fertiliser consumption due to barriers in promotion and extension resulting in low food-grain productivity. Simultaneously, putting challenges before the fertiliser marketers in combating the situation.

Fertiliser Control Order (FCO) 1957, specifies the products in terms of nutrient contents, physical
condition, packing and labeling of fertilisers and defines the term 'fertiliser' and any material other than what is listed in FCO can not be labeled and sold as fertiliser, even though it may be a well known fertiliser. The changes are made in the list as the new type of fertilisers are marketed.

EXHIBIT 3.1

Common Fertilisers available in India and their Nutrient Contents (%)

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>N</th>
<th>P&lt;sub&gt;2&lt;/sub&gt;O&lt;sub&gt;5&lt;/sub&gt;</th>
<th>K&lt;sub&gt;2&lt;/sub&gt;O</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea</td>
<td>46</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ammonium chloride (ACL)</td>
<td>26</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ammonium sulphate (AS)</td>
<td>21</td>
<td>-</td>
<td>24</td>
<td>-</td>
</tr>
<tr>
<td>Calcium Ammonium Nitrate (CAN)</td>
<td>26</td>
<td>-</td>
<td>-</td>
<td>Ca</td>
</tr>
<tr>
<td>Single Super Phosphate (SSP)</td>
<td>-</td>
<td>16</td>
<td>12</td>
<td>Ca 20%</td>
</tr>
<tr>
<td>Triple Super Phosphate (TSP)</td>
<td>-</td>
<td>46</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Potassium chloride (MoP)</td>
<td>-</td>
<td>-</td>
<td>60</td>
<td>Cl 58%</td>
</tr>
<tr>
<td>Potassium sulphate (SoP)</td>
<td>-</td>
<td>-</td>
<td>50</td>
<td>18</td>
</tr>
<tr>
<td>Diammonium Phosphate (DAP)</td>
<td>18</td>
<td>46</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Urea Ammonium Phosphate (UAP)</td>
<td>28</td>
<td>28</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Amm. Phosphate Sulphate (APS)</td>
<td>16</td>
<td>20</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>Amm. Phosphate Sulphate (APS)</td>
<td>20</td>
<td>20</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>Nitrophosphate (ANP)</td>
<td>20</td>
<td>20</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Nitrophosphate (ANP)</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>NPK complex</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>-</td>
</tr>
<tr>
<td>NPK complex</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>-</td>
</tr>
<tr>
<td>NPK complex</td>
<td>14</td>
<td>35</td>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>NPK complex</td>
<td>12</td>
<td>32</td>
<td>16</td>
<td>-</td>
</tr>
<tr>
<td>NPK complex</td>
<td>10</td>
<td>26</td>
<td>26</td>
<td>-</td>
</tr>
<tr>
<td>Rock phosphate</td>
<td>-</td>
<td>18-20</td>
<td>-</td>
<td>Ca</td>
</tr>
<tr>
<td>Pyrite (Agri. Grade)</td>
<td>-</td>
<td>-</td>
<td>22</td>
<td>Fe</td>
</tr>
<tr>
<td>Gypsum (Agri. Grade)</td>
<td>-</td>
<td>-</td>
<td>13</td>
<td>Ca 16-19</td>
</tr>
<tr>
<td>Phosphogypsum</td>
<td>-</td>
<td>-</td>
<td>16</td>
<td>Ca -21</td>
</tr>
<tr>
<td>Magnesium Sulphate</td>
<td>-</td>
<td>-</td>
<td>13</td>
<td>MgO 16</td>
</tr>
<tr>
<td>Copper Sulphate</td>
<td>-</td>
<td>-</td>
<td>13</td>
<td>Cu 24</td>
</tr>
<tr>
<td>Ferrous Sulphate</td>
<td>-</td>
<td>-</td>
<td>12</td>
<td>Fe 19</td>
</tr>
<tr>
<td>Zinc Sulphate</td>
<td>-</td>
<td>-</td>
<td>11</td>
<td>Zn 21</td>
</tr>
</tbody>
</table>

1. Products, Demand and Competition

1.1 Products: More than 20 types of nitrogenous, phosphatic and potassic fertilisers with different nutrient contents are available in the market. Most of the nitrogenous and phosphatic fertilisers are produced in India where entire potassic fertilisers are imported from different countries. Exhibit 3.1 illustrates the type of fertilisers and their nutrient contents.

Of all the fertilisers, four are popular among the farmers — Urea, Diammonium Phosphate (DAP), Single Super Phosphate (SSP) and Muriate of Potash (MoP). Table 3.10 details the despatch of fertiliser material and clearly indicates that the above four constituted 86% of the total despatch of fertiliser materials in 1990-91 which was 72% in 1981-82. Urea is the most popular nitrogenous fertiliser, DAP occupies a special place among N-P complexes because of its concentration and SSP is the oldest chemical fertiliser produced in India. Though, total consumption of fertiliser has doubled during 1981-91 but some of the products have shown remarkable progress than the others like Urea consumption has doubled where DAP consumption has increased six times. 1986 to 1988 was the drought period in most of the states of Northern and Western India which effected the off-take of fertilisers.
but afterwards the consumption picked-up smoothly and it is expected to increase in future.

Table 3.10: Despatch of Fertiliser Materials

<table>
<thead>
<tr>
<th>Year</th>
<th>Urea</th>
<th>DAP</th>
<th>SSP</th>
<th>MoP</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-82</td>
<td>67.01</td>
<td>7.23</td>
<td>11.64</td>
<td>11.08</td>
<td>36.82</td>
<td>133.78</td>
</tr>
<tr>
<td>1982-83</td>
<td>71.31</td>
<td>8.85</td>
<td>12.49</td>
<td>10.26</td>
<td>33.55</td>
<td>136.46</td>
</tr>
<tr>
<td>1983-84</td>
<td>82.41</td>
<td>12.94</td>
<td>14.93</td>
<td>10.36</td>
<td>32.37</td>
<td>153.01</td>
</tr>
<tr>
<td>1984-85</td>
<td>93.47</td>
<td>20.07</td>
<td>17.41</td>
<td>14.00</td>
<td>35.96</td>
<td>180.91</td>
</tr>
<tr>
<td>1985-86</td>
<td>100.15</td>
<td>22.54</td>
<td>20.80</td>
<td>14.12</td>
<td>39.83</td>
<td>197.44</td>
</tr>
<tr>
<td>1986-87</td>
<td>115.70</td>
<td>27.10</td>
<td>20.29</td>
<td>14.35</td>
<td>23.56</td>
<td>201.00</td>
</tr>
<tr>
<td>1987-88</td>
<td>112.12</td>
<td>18.76</td>
<td>23.51</td>
<td>14.52</td>
<td>24.60</td>
<td>193.15</td>
</tr>
<tr>
<td>1988-89</td>
<td>125.56</td>
<td>31.53</td>
<td>29.30</td>
<td>16.93</td>
<td>42.81</td>
<td>245.50</td>
</tr>
<tr>
<td>1989-90</td>
<td>123.61</td>
<td>41.54</td>
<td>30.09</td>
<td>19.32</td>
<td>37.42</td>
<td>251.98</td>
</tr>
<tr>
<td>1990-91</td>
<td>132.01</td>
<td>41.95</td>
<td>35.94</td>
<td>21.55</td>
<td>38.48</td>
<td>269.93</td>
</tr>
</tbody>
</table>

Source: Fertiliser Statistics, 1990-91, Fertiliser Association of India, New Delhi, Table No.I-5.08.

1.2 Future Demand

Many estimates have been made by different agencies based on quadratic and exponential models and taking into account monsoon and irrigation variations. These estimates vary about 60% from the lower 145 lakh tonnes of fertiliser material to the higher 235 lakh tonnes in 1999-2000. Table 3.11 gives the demand of fertiliser as estimated by
the Working Group on Fertilisers set up by Planning Commission.

Table 3.11: Estimated demand of Fertilisers

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
<th>P₂O₅</th>
<th>K₂O</th>
<th>Total</th>
<th>Fertiliser Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994-95</td>
<td>103.0</td>
<td>45.5</td>
<td>16.5</td>
<td>165.0</td>
<td>320.3</td>
</tr>
<tr>
<td>1999-2000</td>
<td>127.5</td>
<td>58.0</td>
<td>20.5</td>
<td>206.0</td>
<td>400.6</td>
</tr>
</tbody>
</table>


On the basis of estimated demand, India will have to set up 1,000 tpd ammonia plant every year during 1990s.49 The requirements of micro nutrients will also increase over the years.

1.3 Competition: Contrary to the common belief that the fertiliser industry has to face no competition due to excessive demand than supply, the companies operating in the market are internally competitive. In addition, potassic fertilisers are imported from outside. They are responsible for internal competition. There are 8 public sector undertakings which control and manage 34 fertiliser plants out of which 25 are nitrogenous and 9 are phosphatic. The two companies in co-operative sector
manage 5 plants and manufacture and distribute nitrogenous and phosphatic fertilisers. Apart from them there is one more company, Indian Potash Ltd., a consortium of the public, private and co-operative sector under the Department of Fertilisers, Government of India. Other than these there are some more companies in public sector which are producing and marketing fertilisers in their own brand name like SAIL, NLC, HCL etc. Besides these there are 14 large and many small fertiliser units producing nitrogenous, phosphatic and complex fertilisers in private sector. Exhibit 3.2 gives the list of companies operating under public and co-operative sector and their brands of fertilisers. The popular brands of fertilisers and their private sector producers have been listed in Exhibit 3.3. In addition to the above the potassic and other fertilisers are imported from outside and all these make the market competitive.

2. Product differentiation in fertiliser marketing: As it has been indicated earlier that the fertilisers are manufactured and marketed with the nutrient content as specified by the Fertiliser Control Order (FCO), 1957 and its amendments from time to time but there is scope for differentiation which builds the image of a particular brand/company in the market. The nutrient contents in no case are forming an important base for differentiation but
**EXHIBIT 3.2**

**PUBLIC AND CO-OPERATIVE SECTOR**

**FERTILISER PRODUCING COMPANIES AND THEIR BRANDS**

<table>
<thead>
<tr>
<th>Name of the companies</th>
<th>Brands</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Sector:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Fertiliser Corporation of India (FCI)</td>
<td>Swastik Urea and others</td>
</tr>
<tr>
<td>2. Hindustan Fertilisers Corporation Ltd. (HFC)</td>
<td>Moti Urea and Moti Khad</td>
</tr>
<tr>
<td>3. National Fertilisers Ltd. (NFL)</td>
<td>Kisan Urea, Kisan Khad</td>
</tr>
<tr>
<td>4. Rashtriya Chemicals and Fertilizers Ltd (RCF)</td>
<td>Ujjawala Urea and Suphla Khad</td>
</tr>
<tr>
<td>5. Fertilisers and Chemicals Travancore Ltd. (FACT)</td>
<td>FACT Urea etc.</td>
</tr>
<tr>
<td>6. Madras Fertilisers Ltd. (MFL)</td>
<td>Vijay</td>
</tr>
<tr>
<td>7. Pyrites, Phosphates and Chemicals Ltd. (PPCL)</td>
<td>Sone Ganga, Mussorie Phos</td>
</tr>
<tr>
<td>8. Pradeep Phosphates Ltd (PPL)</td>
<td>PPL Urea, PPL DAP</td>
</tr>
<tr>
<td>9. Steel Authority of India Ltd (SAIL)</td>
<td>Sona, Raja</td>
</tr>
<tr>
<td><strong>Co-operative Sector:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Indian Farmers and Fertilisers Co-operatives Ltd. (IFFCO)</td>
<td>IFFCO Urea</td>
</tr>
<tr>
<td>2. Krishak Bharti Co-operative Ltd. (KRIBHCO)</td>
<td>KRIBHCO Urea</td>
</tr>
</tbody>
</table>

**Source:** Compiled from the print advertisements in various publications.
## EXHIBIT 3.3

SELECTED MAJOR PRIVATE SECTOR FERTILISER PRODUCING COMPANIES AND THEIR BRANDS

<table>
<thead>
<tr>
<th>Name of the companies</th>
<th>Brands</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gujarat State Fertilisers Ltd. (GSFC)</td>
<td>Sardar Urea and others</td>
</tr>
<tr>
<td>2. Zuari Agro Chemicals Ltd. (ZACL)</td>
<td>Jai Kisan, Samrat</td>
</tr>
<tr>
<td>3. Southern Petrochemicals Industries Ltd. (SPIC)</td>
<td>Spic Urea, Spic DAP</td>
</tr>
<tr>
<td>4. Manglore Chemicals and Fertilisers Ltd. (MCFL)</td>
<td>Mangla Urea, Mangla DAP</td>
</tr>
<tr>
<td>5. EID-Parry</td>
<td>Parrysuper, parmafos</td>
</tr>
<tr>
<td>6. Gujarat Narmada Valley Fertilisers Company Ltd (GNFC)</td>
<td>Narmada Urea</td>
</tr>
<tr>
<td>7. Hindustan Lever Ltd (HLL)</td>
<td>Paras Sarvottam</td>
</tr>
<tr>
<td>8. Indo-Gulf Fertilisers and Chemicals Corporation Ltd. (IGFCC)</td>
<td>Shaktimaan Urea</td>
</tr>
<tr>
<td>9. Shriram Fertilisers and Chemicals Ltd.</td>
<td>Shri Ram Urea</td>
</tr>
<tr>
<td>10. Nagarjuna Fertilisers and Chemicals Ltd. (NFCL)</td>
<td>Nagarjuna Urea</td>
</tr>
<tr>
<td>11. Dharamsi Morarji Chemicals Co. Ltd. (DMCC)</td>
<td>Ship (Jahaz)</td>
</tr>
<tr>
<td>12. Indian Potash Ltd. (IPL)</td>
<td>Indian Potash, IPL Urea</td>
</tr>
<tr>
<td>13. Rallis India Ltd. (RIL)</td>
<td>Tree brand</td>
</tr>
<tr>
<td>14. ICI India Ltd.</td>
<td>Chaand chhap urea</td>
</tr>
</tbody>
</table>

Source: Compiled from the print advertisement in various publications.
there are ways and means to show edge of one company's product over the others. Following are some examples based on content analysis of print as well as audio media which provide ample support to the fact that the scope of product differentiation exists and some companies are utilising them innovatively.

Shriram Fertilisers and Chemicals Ltd. emphasises excellence of quality of Shriram Urea by claiming that Shriram urea prills are round, shiny and uniform, which helps in proper distribution in the fields; it has practically no dust (chura) therefore, there is no loss due to blowing away by the wind during top dressing; it has very low biuret content making it safe, good and convenient for fuller spray after dissolving in water; and bagged immediately after production and 'Factory Fresh' material is available at dealers shops. More or less similar claims are made by the Rashtriya Chemicals and Fertilisers Ltd. (RCF) for their Ujjawala Urea and Suphla Khad like they are store house of energy and power packed with nutrient; produced in prilled form (granular) which helps in even distribution of nutrients in each plants; they can not be easily blown away by wind or washed by rain; and they also dissolve as per requirements thereby providing nourishments day after day.
Indo-Gulf Fertilisers distinct their Shaktiman urea on the basis of its "production in a modern plant using the latest technology having uniform dust-free round prills for being the first choice of the farmers". On the similar pattern Kribhco differentiates its product on the basis of the feedstock used. It emphasises the use of "natural gas from Bombay High/South Bassien in the world’s largest and most modern fertiliser plant in the co-operative sector". ICI India Ltd. proclaims its "Chand Chaap" urea for "its reliability and consistently high quality along with the quality control of material of packing." The Hindustan Lever Limited repeated emphasis on the yellow bag and machine stitching make its "Survottam" different from the other products being marketed in the country. These are a few example in support that though companies are not at liberty to change the composition of the product but the product competition is there with the help of product differentiation.

3. Market Segmentation through ECA Allocation

To ensure equitable distribution of fertilisers at fair prices throughout the country, Central Fertiliser Pool (CFP) was created in 1944 to pool together indigenous and imported fertilisers to be distributed by state owned agencies. The pool acted as a 'super wholesaler' as the supplies were drawn from the pool by the provincial (state) governments and distributed through respective agencies.
including co-operatives. Domestic producers were not the marketers of their products. On the recommendation of Sivaraman Committee, 1965, a new liberalised policy was announced in 1966 where producers were given freedom to market 50% of their production. By 1969 domestic producers were allowed complete freedom of marketing with promotion, extension and advisory services etc. but the need to regulate supplies was strongly felt due to fertiliser shortage in early 1970s and the government passed Fertiliser Movement Control Order (FMCO) in 1973 by which inter-state fertiliser distribution came under government control.

At present the manufacturers continue to distribute fertilisers under a co-ordinated seasonal supply plan (known as EGA allocation), which is formulated in the Zonal Conferences which is attended by the representatives of Ministry of Agriculture, Government of India, State Government Department of Agriculture, Fertiliser Association of India and fertiliser industry. Allocations are based on demand projections worked out by the state governments in consultation with Lead Fertiliser Supplier (LFS) of the state. The allocations are made manufacturer-wise, product-wise and state-wise twice a year before the start of cropping seasons i.e. Kharif (April to September) and Rabi (October to March). As per the Zonal Conference
allocation a manufacturer is called upon to sell specified quantities in given states. The basic principles which cover state-wise allocations are:

(i) No state should depend on one manufacturer.

(ii) No supplier will depend on one state.

(iii) All states should get a fair share of domestic production.

(iv) Ensure that no area remains completely neglected.

EGA allocation starts first by allocating domestic production to ensure that it is fully utilized. 10% pipeline stocks are provided and then the gap between demand and supply is met from the pool which now contains only imported material. Based on the allocation, the manufacturer is at liberty to choose strategies and plans for distribution within the state. The system provides adequate scope of competition as there are large number of agencies involved in distribution. The inbuilt geographical segmentation exists in EGA allocation and the companies formulate marketing strategies based on the requirements of area and territory which vary due to rainfall, weather, irrigation, cropping pattern, fertilizer use habit, purchasing capacity, promotional efforts and fertilizer situation.
4. PRICING AND SUBSIDIES

4.1 Pricing: Pricing of fertiliser is a complex issue involving affordability of the customers (farmers), general stability of the industry, foreign exchange outflow and foodgrain production etc. The government has been taking interest in maintaining balance among diverse and conflicting issues from the earlier days of fertiliser consumption by controlling its price. Through its administrative arrangement within the framework of FCO, 1957 under ECA, 1955, the price of fertilisers for the farmers are kept uniform, irrespective of being indigenous or imported, throughout the country subject only to local taxes enforceable by the concerned state governments and union territories. To make the price control effective, adequate quantities of fertilisers are assured to the farmers of all parts of the country. A major shift in pricing arrangements took place due to the Middle East oil crisis of 1973-74. The cost of imported urea, rock phosphate and sulphur increased steeply. The imported urea price itself was higher than what the customers used to pay and heavy subsidies were incurred which the government of India collected as a cess, (popularly known as Fertiliser Pool Equalization Charge - FPEC) from the industry to pay the subsidies.
On the basis of Marathe Committee recommendations in 1977, Retention Price Scheme (RPS) was introduced. An agency in the name of Fertiliser Industry Co-ordination Committee (FICC) was created to administer the retention price scheme. However, the dilemma of pricing has been resolved by the government at two levels. The consumer prices are fixed based on the affordable capacity of the farmers under the provisions of FCO and the retention prices are fixed for the individual plants based on the prescribed norms of efficiency. The other element having relevance with pricing is the subsidy payment by the government on imported as well as indigenous production.

4.1.1 Consumer Price of Fertiliser: Upto 1966, under the provisions of FCO the retail price of different types of fertilisers were fixed varying from area to area depending upon local conditions. From mid-sixties all straight nitrogenous fertilisers were subject to price control but the phosphatic fertilisers were brought under price control in 1979 and SSP in 1982. The statutorily fixed price retained almost unchanged during 1969 and 1974. The oil crisis led to hike in input costs and government increased the price of fertilisers. But it is an unique commodity in India whose price reduced over the years. The urea price which was fixed at Rs.2000/tonne in 1974 was reduced to Rs.1750 in 1976, Rs.1550 in 1977 and further came down to as lower as Rs.1450 by 1979. Similar phenomenon is also
evident during 1982 and 1986 when the price of the same material was reduced from Rs.2350 to Rs.2150 per tonne. After 1986 upto 25th of July, 1991, the consumer price of fertilisers remained unchanged (except 7 1/2% discount during drought period of 86-89) though the cost of feedstock and other inputs for production and imported fertilisers increased.

4.1.2 Union Budget 1991-92 and Dual Pricing: During the decade of eighties, the consumer price of fertiliser were stable and unchanged with a net effect of overburdened subsidy on indigenously produced and imported fertilisers. To reduce subsidy, in the union budget of 1991-92, the customer's price to the farmers was increased by 40% which was resented from many corners and the government was forced to reduce the increase upto 30% with an added element of exempting the small and marginal farmers from this price hike. Alongwith this increase, the low analysis fertilisers like AS, CAN, AcI and SoP were decontrolled.

The Table 3.12 gives the maximum sales price of fertiliser which were applicable w.e.f. 31st January, 1986 and the changes made on 25th July and 14th August, 1991. The implementation of dual pricing has been questioned as many methods are expected to be adopted to jeopardise the spirit behind this pricing. Later on a Joint Parliamentary Committee (JPC) was constituted which submitted its report.
in August 1992 and based on its recommendations, the government brought these changes.

Table 3.12: Current Maximum Sales Price of Fertiliser Materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Effective from</th>
<th>Current price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>31.1.86</td>
<td>25.7.91</td>
</tr>
<tr>
<td>Urea</td>
<td>2350</td>
<td>3300</td>
</tr>
<tr>
<td>DAP (14-46-0)</td>
<td>3600</td>
<td>5040</td>
</tr>
<tr>
<td>SSP (16% Powder)</td>
<td>950</td>
<td>1340</td>
</tr>
<tr>
<td>SSP (Granular)</td>
<td>1100</td>
<td>1540</td>
</tr>
<tr>
<td>SSP (14% Powder)</td>
<td>820</td>
<td>1160</td>
</tr>
<tr>
<td>TSP (46% P₂O₅) granular Powder</td>
<td>2600</td>
<td>3640</td>
</tr>
<tr>
<td>Urea Amm. Phos. (24-24-0)</td>
<td>3050</td>
<td>4280</td>
</tr>
<tr>
<td>(28-28-0)</td>
<td>3600</td>
<td>5040</td>
</tr>
<tr>
<td>Amm.Phosph.Sulph. (16-20-0)</td>
<td>2300</td>
<td>3220</td>
</tr>
<tr>
<td>(20-20-0)</td>
<td>2600</td>
<td>3640</td>
</tr>
<tr>
<td>Nitro Phosph. (15-15-15)</td>
<td>2100</td>
<td>2940</td>
</tr>
<tr>
<td>(20-20-0)</td>
<td>2400</td>
<td>3360</td>
</tr>
<tr>
<td>(23-23-0)</td>
<td>4120</td>
<td>3800</td>
</tr>
<tr>
<td>NP/NPK Complexes (17-17-17)</td>
<td>2600</td>
<td>3640</td>
</tr>
<tr>
<td>(14-28-14)</td>
<td>3050</td>
<td>4280</td>
</tr>
<tr>
<td>(19-19-19)</td>
<td>2950</td>
<td>4140</td>
</tr>
<tr>
<td>(10-26-26)</td>
<td>2950</td>
<td>4140</td>
</tr>
<tr>
<td>(12-32-16)</td>
<td>3250</td>
<td>4560</td>
</tr>
<tr>
<td>MoP (60% K₂O)</td>
<td>1300</td>
<td>1820</td>
</tr>
</tbody>
</table>


(i) The price of urea was reduced by 10% from Rs.3060 to Rs.2,754 per tonne; and

(ii) Retention price was reintroduced for the low analysis fertilisers which were decontrolled in August 1991.⁶⁴
4.1.3 Retention Price Scheme (RPS)

The customer's price of fertiliser is generally lower than the cost of production. Naturally, the government has to compensate the industry in the form of subsidy. On the basis of Marathe Committee recommendations the government fixes the plant-wise retention price since Oct. 1977 for nitrogenous and from Feb. 1979 for phosphatic fertilisers. Retention price is in recognition that the selling price of fertilisers can not be related to the cost of production nor it can be left to be determined by the supply and demand forces.65

The retention price for different plants were based on 12% post tax return on networth at 80% capacity utilisation and consumption norms of raw material, inputs utilities and other maintenance etc. The RPS is a double-edged weapon as it gives incentive to the units to improve their profitability by seeking to work better than the norms whereas the units which are inefficient and consequently unable to come up to the prescribed norms are not only denied the allowed return but may also incur losses depending on the shortfall in the actual operating performance and the norms.66 The retention price norm was revised in April 1988 taking into account the capacity utilisation and depreciation. The norms set were as follows:
(i) The life of fertiliser plants which have gone on stream in 1982 and thereafter would be 15 years for the purpose of calculation of retention price; (ii) The capacity utilisation norms were changed from flat 80% to varying degrees based on the operation period of the plants and feedstock used. The norms are depicted in Exhibit 3.4.

Exhibit 3.4: Capacity utilisation norms based on Feedstock and age of Plants

<table>
<thead>
<tr>
<th>Feedstock</th>
<th>1st Year</th>
<th>2 to 10 years</th>
<th>Over 10 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Based</td>
<td>80%</td>
<td>90%</td>
<td>85%</td>
</tr>
<tr>
<td>Coal Based</td>
<td>60%</td>
<td>60%</td>
<td>55%</td>
</tr>
<tr>
<td>Other than coal and gas based</td>
<td>80%</td>
<td>85%</td>
<td>80%</td>
</tr>
<tr>
<td>Phosphoric acid plant</td>
<td>75%</td>
<td>75%</td>
<td>70%</td>
</tr>
</tbody>
</table>


The capacity utilisation of ammonia and Urea would be worked out on the basis of 330 stream days with the exception of Gorakhpur unit whose working days would be 300 to be increased upto 330 days after rehabilitation. The depreciation charge to be 4.75% based on 20 years estimate of plants' life. Later the government
appreciated the depreciation rate upto 6.5% spread over 15 years in place of 20 years.  

The ex-factory retention prices are fixed and administered by FICC on three years cyclical basis. An evaluation clarifies that pricing mechanism in the last 1 1/2 decade has ensured growth in investment, installed capacity, capacity utilisation, production and consumption of fertilisers and profitability of the units.

3.2 Fertiliser Subsidy

Due to increasing cost of input, production and distribution of fertilisers, government controlled price was not viable and RPS was introduced which used to be higher than the controlled price for customers. The gap between these two is filled-up through subsidy by the government. In other words, on every tonne of material produced and sold, what the farmer is unable to pay is made up by the government. It is the difference between the net realisation from the customer and the retention price fixed for the individual unit. Subsidies equals the farmgate cost including remuneration for handling and distribution minus the selling price of fertilisers.

At present three types of subsidies are paid -- on imported fertiliser, on indigenous production and for inland freight commonly known as equated freight subsidy.
scheme. Some entrepreneurs perceive that profitability, unlike other industries is guaranteed by the government in fertiliser industry. That is the real catch in fertiliser subsidy.\(^2\)

Table 3.13: Subsidy Payment on Fertilisers

<table>
<thead>
<tr>
<th>Year</th>
<th>Indigenous</th>
<th>Imported</th>
<th>Total</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977-78</td>
<td>24.9</td>
<td>-</td>
<td>24.9</td>
<td>-</td>
</tr>
<tr>
<td>1981-82</td>
<td>275.0</td>
<td>100.0</td>
<td>375.0</td>
<td>1400</td>
</tr>
<tr>
<td>1985-86</td>
<td>1600.0</td>
<td>323.7</td>
<td>1923.7</td>
<td>413</td>
</tr>
<tr>
<td>1986-87</td>
<td>1700.0</td>
<td>197.1</td>
<td>1897.1</td>
<td>(1.4)</td>
</tr>
<tr>
<td>1987-88</td>
<td>2050.0</td>
<td>127.4</td>
<td>2177.4</td>
<td>14.8</td>
</tr>
<tr>
<td>1988-89</td>
<td>3000.0</td>
<td>200.7</td>
<td>3200.7</td>
<td>47</td>
</tr>
<tr>
<td>1989-90</td>
<td>3771.0</td>
<td>717.1</td>
<td>4542.1</td>
<td>42</td>
</tr>
<tr>
<td>1990-91</td>
<td>3730.0</td>
<td>659.3</td>
<td>4389.3</td>
<td>(3)</td>
</tr>
<tr>
<td>1991-92</td>
<td>-</td>
<td>-</td>
<td>6219.0</td>
<td>130</td>
</tr>
</tbody>
</table>


As per the Table 3.13 the quantum of subsidies have increased tremendously over the years. During 1977-78 and 1991-92 the total subsidy has increased by 250 fold. The estimated total subsidy payment in 1991-92 shows an increase of 130% over its previous year (a result of
devaluation of rupee) and it is expected to go up to Rs 11,000 crores by 1996-97. During the last decade, the government has paid subsidies of Rs 28,285 crores. The fertiliser subsidy constitutes almost half of the total government subsidies paid on different other items.\textsuperscript{73}

Under present condition, elimination of fertiliser subsidy will affect fertiliser consumption, food grain production and investment in creation of additional capacity.

5. PROMOTION

The customers of fertilisers have passed through the stages of "inhibition to the mass consumption" and the credit of changed scenario goes to the advertising and sales promotion efforts of the government and the industry in promoting generic products and the particular brands. It is said that fertiliser marketing is the first large scale effort in rural marketing.\textsuperscript{74} Infrastructure facilities were limited to promote products but the situation has changed. The audio, audio-visual and print media coverage has increased, commercialisation of media has been introduced and innovative methods are adopted for promotion of products. There are approximately 23,000 newspapers published in 17 principal languages and 200 dialects with a circulation of nearly 6 crores and covers 21% of the total population. On the other hand there are 8 crore radio receiving sets in the country of which 38% are
in rural areas owned by 48% of the rural household. All India Radio programmes are broadcast in more than 60 languages and dialects from 178 transmitters of which 137 are medium wave and cover about 95% of the population. Of 2 crore 80 lakh television sets, 40% are in rural areas covering 53% of total viewers. As per another survey TV sets are owned by barely 10% of the rural affluent household.\(^7\)

The above profile of the mass media indicates that the scope of promotion of fertilisers on these medias are wider and they are being utilised also. Its 90 farm and home units broadcasting on diverse topics of agricultural and rural aspects have amply rewarded in the development of Indian agriculture. Its impact has been so much that certain seed varieties have become famous as "radio varieties".\(^6\)

More than 35 different types of promotional activities are undertaken by the industry and the government. Some of the programmes are based on advertisements involving mass media where the others are sales promotion and publicity/extension programmes. Advertising programmes are executed with the help of mass media like newspapers and magazines, cinema, radio, television, VCR, and video on wheels, audio cassettes etc.
Some of the sales promotion and extension programmes are: Field demonstration, village adoption, minikit distribution, field days, farmers meeting, crop seminars, soil testing, posters, literature, drama, film show, fertiliser festival, harvest festival, krishi vigyan kendras (KVK), hoardings and wall paintings, training and visit (T&V) system, factory darshan for dealers and farmers, puppet shows, stickers and tin plates, dairies, calendars, participation in exhibition and melas, single window agro service centres, banners, painting of buses and bullock carts, literature distribution, crop competition etc. Some agencies are helping the firms in promoting fertilisers consumption like central and state governments, Fertiliser Association of India, Indian Council for Agricultural Research (ICAR), Agricultural Universities, Indian Agriculture Research Institute (IARI) etc. Many programmes have been sponsored by foreign countries for promoting fertilisers in India which are implemented by the public sector fertiliser companies. Some programmes are Indo-British Fertiliser Educational Project (IBFEP), Indo-German Fertiliser Education Project (IGFEP), Indo-EEC Fertiliser Education Project (Indo-EECFEP), Indo-Canadian Agricultural Extension Project, Waste-land Afforestation Project of Australian International Development Agency, Rainfed Farming Project...
of Government of U.K. etc.\textsuperscript{77} According to one estimate, the industry is spending on an average Rs.12 to 14 per ton on advertising and sales promotion which comes to Rs.30 crores annually.\textsuperscript{78}

6. DISTRIBUTION

Chemical fertiliser is a bulk commodity produced throughout the year in factories located at different centres in the country where the consumption takes place on seasonal basis on a much wider rural area covering 5.57 lakh villages. To ensure that fertilisers are available to the farmers in adequate quantity at the required time, channels are designed and physical distribution is managed.

6.1 Distribution Channel

The industry is using the established channel for fertiliser distribution and the imported non-potassic fertilisers are handled by pool handling agencies which are distributing them through institutional agencies, mainly co-operative societies and private dealers. As per the policy of the government, 50% of the allocations to the companies are to be distributed through institutional agencies and the balance through private trade.\textsuperscript{79} the imported potassic fertilisers are handled by IPL which also uses the co-operative societies and the private distributors. Multi-tire, multi-channels are adopted by the companies in making product available to the farmers. Similarly, the fertiliser dealers also adopt multi-brand
approach to dealership. A dealership survey in 1981-82 indicated that 72% of the dealers were handling fertilisers of 6 to 10 companies where 23% were operating the business of 11-15 companies.

Dealers are in constant touch with the farmers and it is they who actually sell the product so the companies take due care and attention in selection training, and motivation of the retail dealers. While selecting dealers, financial soundness, experience, knowledge of the product and FCO, ability to communicate, local standing, location of the sales point etc. are assessed. They are assigned the responsibility of selling, sales promotion, stockholding and secondary transportation. The companies take special care in their training, on sales skill, communication skill and technical skill. Apart from that the company salespersons usually visit the outlets to solve their business problems and motivate them for greater selling effort. The number of dealers are given in Table 3.14 which shows that in 1990 more than 2.3 lakh dealers were operating in the market which has increased by 98% during the last ten years.

The increase in dealers in recent period has been due to elimination of licensing of fertiliser outlets by simply registration. 66% of the total retail outlets are with the private dealers which were 56% in 1980. During the period
Table 3.14: Number of Sales Point (Dealers)

<table>
<thead>
<tr>
<th>As on</th>
<th>Co-operative and Institutional</th>
<th>Private</th>
<th>Total</th>
<th>Co-op:Private Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>31-3-75</td>
<td>39.2</td>
<td>59.5</td>
<td>98.7</td>
<td>39.7:60.3</td>
</tr>
<tr>
<td>31-3-80</td>
<td>51.6</td>
<td>64.9</td>
<td>116.5</td>
<td>44.2:55.8</td>
</tr>
<tr>
<td>31-3-83</td>
<td>50.2</td>
<td>80.6</td>
<td>130.8</td>
<td>38.4:61.6</td>
</tr>
<tr>
<td>31-3-85</td>
<td>59.7</td>
<td>96.0</td>
<td>155.7</td>
<td>38.3:61.7</td>
</tr>
<tr>
<td>31-3-87</td>
<td>56.8</td>
<td>105.8</td>
<td>162.6</td>
<td>35.0:65.0</td>
</tr>
<tr>
<td>31-3-88</td>
<td>61.0</td>
<td>114.0</td>
<td>175.0</td>
<td>34.9:65.1</td>
</tr>
<tr>
<td>31-3-89</td>
<td>71.8</td>
<td>135.0</td>
<td>206.8</td>
<td>34.7:65.3</td>
</tr>
<tr>
<td>31-3-90</td>
<td>78.7</td>
<td>152.6</td>
<td>231.3</td>
<td>34.0:66.0</td>
</tr>
</tbody>
</table>

Source: Fertiliser Statistics 1990-91, Fertiliser Association of India, New Delhi, Table No.5.10.

Co-operative societies role has weakened in fertiliser distribution. The dealers margin were also fixed by the government from time to time. Presently it is Rs.150 per tonne for the apex body and Rs.130 for co-operative societies and private traders. From time to time the margins have been studied by committees like Sivaraman Committee, Quraishi Committee and PDIL/FICC.

The physical distribution of fertiliser comprises four important aspects, packaging, handling, transportation and warehousing.
6.2.1 Packaging:

To handle 270 lakh tonnes of fertiliser materials, 540 million bags of 50 kg each is required as fertiliser packing is mostly done in 50 kg net weight but some companies have tried to supply smaller bags of 40 and 25 kg in dryland and hilly areas where the fertiliser consumption is very low. To cater the requirements of small farmers the smaller bags of 10, 20, 30 kg can also be used. But this will increase the packing and handling cost. Jute bags have been common in the past but being a natural fiber it is sensitive to fungus and micro-organisms, atmospheric degradation resulting in yellowing of the fabric and ultimate strength of the material particularly when exposed to moisture and light.

Due to these disadvantages HDPE bags were introduced in 1974 which was resisted by the workers as the bags were slippery. From 1980, the industry started to use HDPE bags at a larger scale and for its better protection of content against hygroscopicity, higher value and varied after use services, acceptability among customers increased. But its use has been restricted under the Jute Packaging Order, 1988 by the Ministry of Textiles, Government of India to protect the decaying jute industry and the manufacturers are directed to use jute bags for packing urea. As per the FCO manufacturers have to comply with
the requirements of packing, marking, bag size etc. The name of the product, percentage of nutrient content, date of manufacture, name and address of manufacturer are to be printed on the bags.

6.2.2 Handling: The mode of transport adopted differentiates the handling requirements of fertilisers. It has been estimated that under normal conditions a bag has to face the hardship of at least 15 handling in transporting fertiliser by rail from factory to the farmers. This necessitates that the bags should be sturdy to bear the shocks. Mechanised and semi-mechanised handling, loose movement, flexible nylon bags, big containers, bulk handling and pelletisation are some alternative measures suggested for handling fertilisers.

6.2.3 Transportation: The ECA allocations have their impact on transportation as considerations are made to reduce criss-cross movement of similar fertilisers, movement through difficult rail sections and breakage of guage should be avoided and lead time should be reduced. More than 99% of the fertilisers are transported by railways and roadways and a very nominal amount by water. Fertilisers can be off-loaded at more than 7000 railway stations but after a decision of full rake load on point to point basis, the number of stations declared suitable has come down upto 400. Out of 372 broad guage rake points, 35 locations of high fertiliser consumption area of six
northern states have been identified as "nodal points" to equip them with the covered railway sidings, mechanised handling, buffer stocking, circulation track loading etc.\textsuperscript{91} But there is acute shortage of covered wagon and 30,000 wagons per year for 5 years are required to transport fertilisers. A train load carries 2200 tonnes of fertiliser material.\textsuperscript{92} Furthermore, the average lead has reduced from 1100 km in 1980-81 to 972 km in 1990-91 for fertilisers other than urea. The urea lead has reduced upto 746 km in 1989-90 from 800 km in 1980-81.\textsuperscript{93}

The roadways are gaining more share due to secondary movement from rail points to block headquarters. Over and above that they are cheaper for shorter distance, take minimum transit time, minimum handling loss and minimised problems of claims though they carry low volume of fertilisers.\textsuperscript{94} The government subsidises the factories under equated freight subsidy scheme for the transportation cost from factory upto block headquarters in respect of urea, DAP and complex fertilisers and upto rail heads/field godowns for others.\textsuperscript{95}

6.2.4 Warehousing: Production throughout the year at limited centres and consumption in bulk quantities on seasonal basis enhance the need to create warehousing facilities. This need is further magnified due to the tendency of farmers to purchase fertilisers just before the
period of application. In addition to that, some of the chemical fertilisers are hygroscopic, some acidic and few explosive in nature and their texture and composition are to be maintained requiring additional protection under ideal storage conditions. The storage capacity at the plant silos being only to the extent of 4-6 weeks of production, it is essential to move the material throughout the year and store them at some other places.96

The public sector organisations - Central Warehousing Corporation (CWC) and State Warehousing Corporations (SWC) in addition to the co-operative societies are providing warehousing and handling facilities of fertilisers. Private godowns are also available but at a limited scale. The warehousing capacity available is of 280 lakh tonnes, the details of which is given in Table 3.15.

Table 3.15:  Warehousing Facilities available with different agencies as on 31.3.91

<table>
<thead>
<tr>
<th>Organisation</th>
<th>No. of warehouses</th>
<th>Capacity in lakh tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.W.C.</td>
<td>495</td>
<td>66.48</td>
</tr>
<tr>
<td>S.W.C.</td>
<td>1331</td>
<td>93.54</td>
</tr>
<tr>
<td>Co-operatives</td>
<td>59265</td>
<td>120.67</td>
</tr>
<tr>
<td><strong>Total capacity</strong></td>
<td><strong>59265</strong></td>
<td><strong>280.69</strong></td>
</tr>
</tbody>
</table>

Source: Fertiliser Statistics 1990-91, Fertiliser Association of India, New Delhi: Table No.5.0 and 5.04.
They are located at different centres are hired by the fertiliser companies. It has been estimated that to store one tonne of fertiliser in a bag of 50 kg requires a carpet area of 0.51 square meter x 4.8 meter storage height. 30% of the space is consumed in providing free passage for handling purposes.97

7. SALESFORCE IN FERTILISER MARKETING

Fertiliser marketing is basically 'know how marketing' among the rural customers who are widely scattered and mostly illiterate. Fertiliser selling is highly seasonal demanding hard work and knowledge98 about crops, soil, rainfall etc. at the one hand and product, nutrients, physical distribution, fertiliser promotion, dealer motivation and developments, market research and above all salesmanship on the other. This situation in turn has necessitated to engage agronomy specialists in addition to the salesforce in fertiliser marketing outfit. It is estimated that the fertiliser industry has a strength of 4000 to 5000 agriculturally qualified field force.99 The salesforce ensure the company's success in marketing and it has been properly recognised that to bring excellence in fertiliser marketing, human resource development should be introduced at all marketing levels.100
The salesforce were assigned duties which resembled more closely to the agricultural extension workers like soil testing, demonstration, contact with local officials, dealer training etc. but these responsibilities have changed over the years. In addition to the above, the other duties are: to organise publicity, distribution of education material on agricultural practices and fertilizer use through retail outlets; establish intensive fertilizer distribution organisation mainly in interior rural areas; conduct farmer meetings in village blocks, organise participation in weekly markets and agricultural fairs; survey of the territories and to provide regular feedback to superior on market trends, monitor the quality of the product, conduct seasonal campaign to promote soil testing and to supervise implementation of F.C.O. through dealers; collect resources from the market and deposit them in the bank for onward transmission and to collect credits from the dealers; monitor the warehouses maintained by the company/dealers falling in his territory; send the reports about sales and marketing activities regularly to the next higher level; and maintain contact with the local officials and local press to highlight the company's developmental activities.

The salespersons are deployed in the sales territories which are generally the administrative
districts. The sales quotas are fixed for them on seasonal basis and they are monitored by the area offices. They are the link between the company and customer and work for the benefit of both the parties.

8. MARKETING COST OF FERTILISERS

In making fertilisers available from the production centre or post to the farmers, costs are incurred at many stages. More prominent areas of expenses are packaging, transportation, storage (distribution cost), advertising and sales promotion, extension and training, dealers margin (promotion cost), salaries, travelling expenses, office maintenance and communication (sales administration cost) etc. These costs are all related with marketing and they have shown steep increase in recent times. The government claims that due to retention price scheme, it has to bear the inefficiency of the manufacturers. But the realities are somewhat different which are clear from the introspections of cost components. Three studies have been conducted so far for fertiliser marketing costs and their percentage break up. The evaluation of the studies give the idea that the transportation cost has always dominated the total marketing costs followed by packaging costs. Furthermore, their percentages have been changing over the years as it is given in case of the Study of Ramaswamy that transportation cost which was 37% in 1980-81 was reduced upto 31% in 1982-83 where the inventory carrying cost
increased from 10% of the total marketing cost in 1980-81 to 31% in 1982-83. The other studies are of Meane and Weddershoven and Rama Rao the result of which are shown in Exhibit 3.5.

Exhibit 3.5: Fertiliser Marketing costs

<table>
<thead>
<tr>
<th>Cost elements</th>
<th>Ramaswamy 1982-83</th>
<th>Meane and Weddershoven 1982-83</th>
<th>Rama Rao 1984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>31</td>
<td>37</td>
<td>46</td>
</tr>
<tr>
<td>Packaging Material</td>
<td>-</td>
<td>-</td>
<td>25</td>
</tr>
<tr>
<td>Bagging</td>
<td>-</td>
<td>20</td>
<td>-</td>
</tr>
<tr>
<td>Storage/warehousing</td>
<td>-</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Handling</td>
<td>-</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Inventory carrying costs</td>
<td>31</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Physical losses</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Capital costs</td>
<td>-</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Administration</td>
<td>-</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>Distribution Margin</td>
<td>24</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dealers Margin</td>
<td>-</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Financial charges</td>
<td>-</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Other costs</td>
<td>14</td>
<td>16</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100</td>
<td>99</td>
<td>100</td>
</tr>
</tbody>
</table>
If packaging material, bagging, storage and handling charges are considered as inventory carrying cost then we can say that Transportation and Inventory carrying costs which constituted 61% or 69% in 1982-83 calculated by Ramaswamy and Meane and Weddershoven has increased upto 84% which is quite substantial. There is marked increase in the ratio of transportation to total marketing cost from 31 or 37% in 1982-83 to 46% in 1988. At present, Rama Rao’s costs analysis is considered for evaluation of individual company’s marketing costs. But in another study it has been shown that freight charges constitute more than 70% of the selling and distribution costs. Payroll travelling and administration charges constitute 14%.105

The above discussion gives the idea that fertiliser has overriding importance in India agriculture. The public sector fertiliser industry is dominating the scene in terms of investment and capacity. The marketing is mainly government regulated but the companies are having options in terms of product differentiation and the market segmentation is based on ECA allocation. The salesforce play an important role in marketing of fertilisers. The marketing costs have changed over time and the ratio of the cost component to total marketing cost has also changed.
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CHAPTER IV
CASE STUDY OF
FERTILISER CORPORATION OF INDIA (FCI)

In this chapter an attempt has been made to discuss the application of marketing control systems in Fertiliser Corporation of India (FCI). Broadly, there are two sections of the chapter. The first section is devoted to the company profile wherein the recent performance of the corporation has been analysed and the marketing of fertilisers by the Company has been discussed.

In the second section the application of marketing control system has been presented as per the pattern of specific objectives of the study which are as follows:
1. Marketing Control Practices.
2. Salesforce Control Systems.
3. Accounting techniques in marketing control.
4. Marketing key variables.

FERTILISER CORPORATION OF INDIA (FCI) - A PROFILE

1. GENERAL INFORMATIONS

Fertiliser Corporation of India (FCI) was incorporated in 1961 under the companies Act 1956 by the central government. This company was formed by amalgamating the two companies known as Sindri Fertilisers and Chemicals Ltd. and Hindustan Chemicals and Fertilizers
Ltd. Both the companies were government owned companies having their plants at Sindri and Nangal respectively. The company was placed under the Ministry of Petroleum, Chemicals and Fertilizers.

During the period of 1961 and 1978 the company grew into a giant fertiliser company managing 12 plants/Divisions all over the country. For effective control FCI and other fertilizer company known as National Fertilisers Corporation Ltd. were reorganised in 1978.¹

The FCI retained the following Units/Divisions:
Sindri, Gorakhpur, Ramagundam and Talchar. Only two plants, Sindri and Gorakhpur were in operation. The old plant of Sindri was closed in 1978 and two new plants were commissioned in 1979. The plants at Talchar and Ramagundam commenced production in 1980. With the inclusion of these two plants, FCI is having the world largest coal based fertiliser plants.

The present status of the Company is as under:²

Registered Office : 55, Madhuban, Nehru Place
                   New Delhi

Marketing Division : Nehru Place, New Delhi
Operating Plants and their capacities etc.
(as on 31st March, 1991)

<table>
<thead>
<tr>
<th>Plants</th>
<th>Year of commissioning</th>
<th>Feedstock</th>
<th>Capacity '000 tonnes</th>
<th>N</th>
<th>P2O5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sindri (Bihar)</td>
<td>1959,1979</td>
<td>Fuel oil, Gypsum, Ammonia etc.</td>
<td>219.0</td>
<td>150.0</td>
<td></td>
</tr>
<tr>
<td>Gorakhpur (UP)</td>
<td>1989</td>
<td>Naphtha</td>
<td>131.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talchar (Orissa)</td>
<td>1980</td>
<td>Coal</td>
<td>228.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ramagundam (AP)</td>
<td>1980</td>
<td>Coal</td>
<td>228.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>806.0</strong></td>
<td><strong>150.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

Korba Division: Kept in abeyance till 1989, decision by the government to abandon the project. Modalities awaited.

Jodhpur Mining Organisation: Supply of Gypsum to Sindri Unit and government of Rajasthan for agricultural purposes.

Capital of the Company (as per 1990-91 Annual report)

Authorized capital 80,00,000 equity shares of Rs.1,000 each Rs.800.00 crores

Issued, subscribed and paid-up Capital: 61,63,937 equity shares of Rs.1,000 each Rs.616.39 crores

Net Assets (Fixed) Rs.121.40 crores

Total No. of employees: 10607.00
2. PERFORMANCE: Performance of the company is analysed over a period of time for three main areas of production, sales and finance. The indicators selected are production of nutrient and capacity utilisation of the plants. The marketing performance is gauged with the help of sales revenue and financial performance by the indicator of profitability and dividend payment.

2.1 Production performance:

Table 4.1: Production Performance and Capacity utilisation of F.C.I.

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Installed Capacity (Nitrogen)</th>
<th>Production</th>
<th>Capacity utilization (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>806.0</td>
<td>260.3</td>
<td>32.3</td>
</tr>
<tr>
<td>1986-87</td>
<td>806.0</td>
<td>391.5</td>
<td>48.6</td>
</tr>
<tr>
<td>1987-88</td>
<td>806.0</td>
<td>358.4</td>
<td>44.5</td>
</tr>
<tr>
<td>1988-89</td>
<td>806.0</td>
<td>267.5</td>
<td>33.2</td>
</tr>
<tr>
<td>1989-90</td>
<td>806.0</td>
<td>303.2</td>
<td>37.6</td>
</tr>
<tr>
<td>1990-91</td>
<td>806.0</td>
<td>229.8</td>
<td>28.5</td>
</tr>
</tbody>
</table>

Source: Compiled and calculated from Fertiliser Statistics of respective years. Table No.I-1.01. Fertiliser Association of India, New Delhi.

The production performance of Fertiliser Corporation of India has never been satisfactory in the last decade.
The capacity of the company has not increased. The production in terms of fertiliser nutrients nitrogen has been decreasing since 1986-87 except the year 1989-90 when it is showing an increase of a low rate of 13% over its previous year.

The capacity utilisation has been as lower as 28.5% in 1990-91 and the maximum during the period was 48.6% in 1986-87. The average capacity utilization during the period of 1985-86 and 1990-91 was 37.2%. This shows the poor state of production and capacity utilization.

The causes of poor capacity utilisation for different plants have been different over the years. But generally the company has given this idea that it is due to power limitation from the Electricity Boards, unforeseen breakdowns, shut down of plant due to accident, coal limitation by choking of coal handling system, damage of turbine, strikes of loaders, etc.\(^3\)

The measures have been taken by the company to revamp the plants and the PDIL alongwith the other organisations have submitted their recommendation in this regard.
Table 4.2: Sales Revenue generated by FCI

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Sales (Rs in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>269.9</td>
</tr>
<tr>
<td>1986-87</td>
<td>334.9</td>
</tr>
<tr>
<td>1987-88</td>
<td>330.2</td>
</tr>
<tr>
<td>1988-89</td>
<td>396.7</td>
</tr>
<tr>
<td>1989-90</td>
<td>402.5</td>
</tr>
<tr>
<td>1990-91</td>
<td>300.9</td>
</tr>
</tbody>
</table>


The table 4.2 indicates that the sale of fertilisers has increased over the years. The downward sale in 1987-88 is due to the draught in some parts of the country. Except that year, the sale has been increasing. In 1990-91 also the sales have gone down drastically. It is related with production which reduced by 24% over its previous year, correspondingly sales has come down by 25%. Both production and sales go hand in hand as the allocation for the seasons are made considering the plants' capacity utilisation.

In terms of volume of Nitrogen, the company could make a sale of 236.9 thousand metric tonnes in 1990-91 as
compared to 337.2 thousand metric tonnes in 1989-90. The decrease is of about 29\%. 4

2.3 Financial Performance:

The state of affairs of the company described above indicates that the production and sales performance in recent period is not satisfactory. The financial performance is also on the same pattern. The Net profit figures and dividend paid during 1985-86 and 1990-91 are given in Table 4.3.

<table>
<thead>
<tr>
<th>Year</th>
<th>Net/Loss</th>
<th>Dividend</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>(129.38)</td>
<td>-</td>
</tr>
<tr>
<td>1986-87</td>
<td>(102.53)</td>
<td>-</td>
</tr>
<tr>
<td>1987-88</td>
<td>(42.67)</td>
<td>-</td>
</tr>
<tr>
<td>1988-89</td>
<td>(191.23)</td>
<td>-</td>
</tr>
<tr>
<td>1989-90</td>
<td>(146.80)</td>
<td>-</td>
</tr>
<tr>
<td>1990-91</td>
<td>(168.35)</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Annual Report, 1990-91 Department of Fertilizers, Ministry of Chemicals and Fertiliser, Govt. of India, and Annual Report, 1990-91, Fertiliser Corporation of India.

The company is not earning profit since long. During the period 1985-86 to 1990-91, it has seen the gross profit
figure only in 1987-88\(^5\) and in all the years it has given Net losses as is clear from the Table 4.3.

The company is not in a position to pay dividend to the share-holders which is the government of India for more than 10 years.\(^6\) But it has contributed to the exchequer in the form of tax and duties to the tune of Rs.43.44 crores and 45.85 crores during the year 1989-90 and 1990-91 respectively.\(^7\)

On the performance front the company is in very bad shape. The production performance is vulnerable, ultimately effecting its sales and profitability. The negative networth throughout the last decade is clear indication of its capital erosion. The company has proposed the government to increase the equity base by converting loans so that the interest burden could be reduced.\(^8\)

3. Marketing operations:

3.1 FCI is marketing fertilisers under its brand name of SWASTIK. The main products of the company are Urea, Ammonium sulphate (AS) and Tripple Super phosphate (TSP) in fertiliser category. It also markets the products supplied by the other companies and countries. The industrial products manufactured and marketed are Ammonia, Ammonium Nitrate, Nitric Acid, Argon Gas, Liquid Nitrogen and Oxygen etc.\(^9\)
3.2 The fertilisers are sold at statutorily controlled price, where the industrial products are sold on the basis of prevailing competitors price.

The supplies are made on cash and carry basis but the credit is also allowed.¹⁰ The percentage of debtors to total sales as on 31st March, 1991 has been 40% as compared to 36% on 31st March, 1990.

3.3 The marketing set up of the organisation is well knit in order to distribute fertiliser from the factory to farm. A separate Marketing Division has been created for the purpose.

The Marketing Division is headed by the G.M. (Marketing) who holds office in corporate headquarter at New Delhi. He is assisted by Financial Manager and Personnel Manager at the Central Office.

The States, in which fertilisers are supplied are headed by Chief Marketing Manager/Marketing Managers. The State offices are also assisted by Finance and Personnel departments.

The Area Manager/Manager (Sales) are working under the Chief Marketing Manager/Marketing Manager. The Area office controls 5 to 7 number of districts where the Sales Officers, Senior Sales Officers, and Sales Representatives are appointed. Generally, one district is headed by one Sales Officer. In case of intensive districts where sales are more and promotional programmes are under taken under
Lead Fertiliser Schemes (LFS) and National Project, more than one Sales Officers are also posted for carrying out Sales promotion programme effectively. At district level no separate office is provided and Sales Officer functions from his residence. A brief marketing organisation set up is given in Chart 4.1.

3.4 The marketing territories of the organization are limited to the States of Bihar, U.P., M.P. and Maharashtra,

Chairman and Managing Director (CMD)

General Manager (Finance) G.M. (Marketing) G.M. (Personnel and Administration)

CMM/MM CMM/MM CMM/MM

Manager Manager Manager
Sales/Area Sales/Area Sales/Area
Manager Manager Manager

Sales Officer/Senior SO/S SO/S SO/S
Sales Officer/Sales SO/SR SO/SR SO/SR
Representatives

Chart 4.1
A.P., Orissa and West Bengal. For these areas, the ECA allocations of fertilisers are made on seasonal basis. The industrial products are sold throughout the country.

3.5 Marketing activities are operated through two distribution channels, institutional and private dealers who are usually small traders, ex-servicemen, multi-purpose distribution centre, persons belonging to S/C and S/T. The distribution margin are fixed by the government.

Mainly two modes of transport are used by the Company to make the fertilisers available at the different locations, road and railways. Being a seasonal product, the sale to farmers is made during Rabi and Kharif cropping seasons and for uninterrupted supply during the seasons fertilisers are kept in field godowns maintained by corporation through central/state warehousing corporations. The company has warehousing capacity of 1.52 to 2 lakh metric tonnes. At factories, the stocks are kept in huge silos.13

3.6 Many types of programmes are undertaken by the Company for promoting judicious and balanced fertiliser use. The need based promotion activities are organised. Some main programmes are village adoption, field demonstration, kisan melas, field days, group discussion, farmers training programmes, crop seminar, mini-kit distribution, soil testing, intensive fertiliser promotion
programmes etc. Apart from these the company adopts the mass media like radio, newspapers and other publications to advertise its products.¹⁴

The company is sustaining losses for which the causes highlighted are mainly related with production capacity. The coal based plants are not successful in delivering the desired type of fertilisers. But the marketing activities especially the promotional efforts for balanced use of fertiliser as well as to create the image of Swastik brand is supportive for agricultural production.

SECTION-2
CASE DISCUSSION

This section deals with the discussion of marketing control system as they are applied in FCI. The areas have already been identified in the objectives of the study in Chapter II.

I. MARKETING CONTROL PRACTICES

Three types of controls have been identified in FCI which are in use in varying degree of applicability. These controls are:

1. Annual Plan Control
2. Profitability Control, and
3. Efficiency Control
The strategic control has not been adopted by the company as there has not been any serious and systematic attempt to undertake marketing audit.

The nature of these controls are being discussed in succeeding paragraphs. Main stress has been given on the periodicity of analysis, source of information, types/causes of variation and corrective action in implementation.

1. ANNUAL PLAN CONTROL

The three types of Annual Plan controls identified are:

1.1 Sales Analysis;
1.2 Market Share Analysis; and
1.3 Customer Attitude Tracking

The company undertakes all the four types of control with varying degree of stress.

1.1 Sales Analysis

In case of Sales analysis the standard of achievement is fixed by the GM (Marketing). This is nothing but the allocation made by ECA for two seasons. These allocations are broken down upto district level in terms of volume of fertiliser. These are specified in monetary terms by the marketing department in terms of Annual Sales.

The sales analysis is done by the company on monthly, quarterly, seasonal and yearly basis with the help of sales budget. This is conducted product-wise and area-wise also.
In case of segment (area-wise), the analysis is done with the help of States (region) and Area. As the allocation is for two seasons namely Rabi and Kharif, so separately for these seasons the sales analysis is conducted. In case of product Urea is the main product, so more stress is on the analysis of urea sales and least stress is on industrial products.

Reporting pattern and flow of information for the sales analysis is that during the season, the sales-persons report about the off-take of material to the area office on weekly basis. This is called sales report. From the area office, the informations are passed on to the regional office. A fortnight after the month passed these reports are available in the marketing division. This report contains information in consolidated form with individual area office sales as annexures.

The sales report contains information regarding sales of different products during the period.

The sales proceeds information are taken from the accounting department on monthly basis. For want of accuracy, the accounts section takes more time than a month as the actual collection is delayed due to banking system and credit sales reporting.

The causes of variations are analysed taking into account the different factors in different areas. If the
internal factors have been considered responsible, the monitoring is done at two levels:

(i) Monthly sales conference at Regional Office which is attended by all the Sales Officers and Area Managers of that Region.

(ii) GM Marketing also calls the Regional Managers to clarify the situation. This is regular during the Kharif and Rabi seasons.

1.2 Market Share Analysis

The other mechanism of annual plan control is the market share analysis, which the company analyses on yearly basis. It does not calculate market share for the allocated market but the share in respect of the other public sector undertakings. The cause for selection of only one indicator is that the public sector and the cooperative sectors altogether occupy a dominant position in terms of production and sale of Nitrogenous fertilisers (72%) of installed capacity. The relative market share they consider more important than the allocated and overall.

The overall pattern is that the company analyses the market share at the corporate level on annual basis for all the fertilisers taken together. The supply plans for the seasons give idea about the probable sale to be made by all companies. The actual sales made are taken from the Ministry of Chemicals and Fertilizers, Govt. of India and
from Fertiliser Association of India, New Delhi comparisons are made with the previous year share in respect of the competitors.

The causes of variations are searched and generally they are found in non-availability of material in the market at right time due to bottle-necks in distribution. Ultimately the dealers handle the products of competitors and the market share of the company is reduced.

As this indicator gives the idea of relative performance, the efforts of competitors in this regard are evaluated. The marketing efforts mainly of sales person and dealers are analysed and they are attuned for future period. Transportation is geared to cope with the requirement of the market. Sometimes inventory position in the warehouses are improved before the cultivation starts.

1.3 Customers Attitudes Tracking

To analyse the attitude of customers the company encourages them to put forward their complaints and suggestions to the company. Periodically they are reviewed and constructive suggestions are discussed in the meetings of GM (Marketing) and other Regional and Area Managers.

These suggestions, after evaluation in terms of financial implications are implemented. Generally, these complaints and suggestions are of short term nature like problems of non-availability of product during the season,
the broken prills of urea, weight loss and the working of sales persons or dealers which require immediate action. On limited scale, customer awareness analysis is done for efficiency evaluation of promotional efforts.

2. PROFITABILITY CONTROL

The executives recognise that only the annual sales are not important but the marketing efforts should generate profit which is the life blood of a going commercial concern. But the irony is that as the company has not seen profit figures since last decade so the stress is not given on evaluation of profitability on periodic basis. It does not analyse the product, the private and institutional channel, territorial or seasonal profitability.

The problem is that in their evaluation, allocation of cost becomes difficult. Its use is limited as addition or deletion of product, territories or channel is not possible due to obligation on the company to sell as per the allocation of the Government of India.

3. EFFICIENCY CONTROL

3.1.1 Advertising Efficiency

The company measures the efficiency of advertisements for all campaigns which they have adopted. This is analysed on the basis of customers opinion regarding awareness by the marketing division. They do not take help of any advertising agency for this purpose. Generally analysis, done when the programme is over and that too on
irregular basis. The corrective action in this regard is futuristic in approach. They are utilised for future planning.

3.1.2 Sales Promotion Efficiency

The company uses many methods of sales promotion like dealers training programme, kisan melas, soil testing, field demonstration, village adoption etc. These programmes continue throughout the year. The evaluation of individual programmes are done by the field staff. The basic indicator of efficiency is the awareness about the utilisation of fertilisers and companies brand. The objectives of the programmes differ as per their nature. If the objectives are not satisfied or there is resource crunch, some programmes are discontinued in between. Diversion of resources from one programme to the other also takes place and same is the case with region and season.

3.2 Distribution Efficiency

Due to multiplicity of agencies involved in distribution of fertilisers, the methods of analysing efficiency of distribution are also diverse in this company.

3.2.1 Channel Efficiency

At the Corporate Marketing Division, the off-take of product through different channels are analysed on quarterly and seasonal basis. The consolidated data of
sales volume for different regions are provided from Regional offices. The causes of variation are analysed and in turn the company sometimes changes the composition of distribution from one type to the other. Generally, 50% of the fertilisers sales are to be made by the institutional agencies and the rest 50% by the private channel.

3.2.2 Transportation Efficiency

The transportation efficiency is evaluated quarterly in terms of volume of products moved by railways and road transport. The data are made available from the plants on monthly basis. The evaluation takes place on the basis of past performance and supply plan of the season. If the supplies are delayed due to road transport bottlenecks, they generally delay the payment to transporters.

4. STRATEGIC CONTROL

The company does not adopt the strategic control. The concept of marketing audit has not been accepted so far. Sometimes back the company has gone for evaluation of competitors, economic condition for fertiliser marketing.

II. SALESFORCE CONTROL SYSTEM

The company assigns these general duties to their sales force (Sales Officer/SR/SSR/SSO).

(1) To create demand and ensure supply as per allocations.

(2) Issue of Invoice and collection of money
(3) Sales promotion through various methods as undertaken by the company, and

(4) To report the performance of Sales regularly. Within the above broader areas, the specific duties are assigned.

1. TERRITORIES:

For the control of sales officers, the company adopts four methods of control with varying degree of emphasis. To facilitate the proper coverage of market of Sales Officers the concept of territorization has been adopted. These territories are administrative districts or a combination of districts assigned to one sales officer. The basis is for making territories is not the potential but the geographical area. The organisation considers that the territories are needed for control of salesforce.

The methods of control are:

2. Quota achievement
3. Sales budgeting
4. Efficiency analysis, and
5. Behaviour based evaluation

2. SALES QUOTA

For controlling sales officers, the company sets product-wise sales volume quotas in terms of tonnes of fertilisers for territories for both the seasons
separately. These quotas are set as per the ECA allocation to the states. The evaluation of performance is done by the Area Manager on the basis of weekly report submitted by the sales officers. If the Sales Officer is not found in a position of achieving the quota, the causes of non-achievement are analysed. But this is not an easy task as environmental factors such as drought, flood, economic condition of farmers etc. effect on the off-take of fertiliser. Sales officers are called for meeting with the Regional Manager once a month during the Kharif and Rabi seasons, where they explain their position in the market. Monitoring is done by the Area Offices on regular basis. If the Sales Officers are found negligent in performing their duties they may be transferred to the other territory. The company does not set activity quota and combination quota for the sales officers.

3. SALES BUDGETS

Sales budgeting concept for controlling sales officers has been adopted by the company. There are two components of the sales budget, income from sales of fertilisers from the districts and the direct expenses incurred on personal selling. The executive explained that the typical nature of sales budget is that the quota or sales revenue is fixed at higher managerial level where the estimates of expenses pass from lower to higher level i.e. from Area Office to Corporate Marketing Division. The
expenses are monitored from Area offices. The Sales Officers can not over spend the budgeted expenditure. The budget is neither linked with profitability (i.e. gross margin or net profit) nor with quota achievement.

4. SALESFORCE EFFICIENCY ANALYSIS

4.1 Sales Calls

The Company utilises limited number of indicators for efficiency analysis of sales persons. The company considers that calls to be made by the sales officers on the dealers and farmers are important but less importance is given on calls analysis.

The company executives do not support the idea of evaluation of Sales officers based on calls due to the nature of product and market. The responsibilities of Sales officers are not like a consumer goods seller. The popularisation of fertiliser use among the farmers is important and for that promotion whatever efforts are made by the company in that territory, the Sales Officer has to assume responsibilities in that respect.

4.2 Salesforce expense to Sales

The other indicator for efficiency analysis of Sales Officers is the expenses on personal selling as input and the resultant sale from the territory where the Sales Officer is placed as output, is used by the Area Manager on seasonal and yearly basis. The ratio is calculated in
terms of personal selling expense to sales for that territory and this ratio is compared with the similar period ratio of previous year. The Area Manager searches the causes for higher ratio. The Sales Officers' expenses are monitored and activities geared towards more sales revenue.

4.3 Responsibility Evaluation

Apart from sales revenue generation, there are other important responsibilities of the Sales Officers like promotion, collection, reporting, warehouse monitoring, etc. There is no one standard yardstick for their evaluation but they have been designed separately for each activity.

4.3.1 Promotion Efficiency

For promotion of fertilisers, the company organises more than 35 different types of programmes in which the Sales Officers role are dominant. The programmes are kisan-melas, field days, farmers and dealers training programmes, soil testing, village adoption etc. The company subjectivity evaluates the role of Sales Officer on the basis of their active participation in those programmes.

4.3.2 Credit collection

Collection of sales proceeds and their deposit in the bank on daily basis is the other responsibility. The credit collection is also his responsibility. The Area Manager evaluates the sales officer on the basis of total
sales, credit sales and collection of credit along with the period of its collection. If the ratio of credit sales to sales is increasing and the collection is not correspondingly made, the Area Manager gives an early warning for special drive for collection.

4.3.3 Reporting

Sales officers have to send the weekly report to the Area Manager mainly during cropping seasons. These reports form the basis for corporate reporting. The reports highlight the requirement of territories. Delay in report is monitored by the Area Manager. The reports are evaluated on the basis of periodicity and their contents.

4.3.4 Dealer Development

For dealer development, the sales officers have to organise their programmes from time to time. They are being trained in selling fertilisers to the retailers and collection of sales proceeds, utilisation of godown space, transportation, handling of material etc. Number of such programmes organised during the seasons form the basis of performance.

3.3.5 Warehouse Monitoring

He has to monitor and see that the warehouses has been fully utilised upto its capacity. If there is shortage of material during the season, he has to inform it
to the Area Manager. Generally, the number of visits made to the warehouses become the basic criteria for evaluation.

If the sales officers are not performing as per the demand of these responsibilities, the Area Manager may request the Regional Manager to transfer them. They are not provided with any monetary incentive but sometimes they are praised by the supervisor for commendable performance. In case of non-performance, he is not going to be retrenched. Transfer from one territory to other as a punishment in itself is very harsh decision in this set up which is sometimes resisted.

4. BEHAVIOUR BASED EVALUATION

The Company has not adopted any systematic and periodic method for evaluation of Sales officers performance on the basis of their co-operativeness, resourcefulness, public relation, technical knowledge of the product etc.

III. ACCOUNTING TECHNIQUES FOR MARKETING CONTROL

The Company for marketing control purposes utilises some Accounting techniques. These techniques have been applied either for output control or input control. The input controls are related with the expense or cost elements and output with revenue, profit or results.

The accounting techniques which are applied by the marketing division are:
1. Ratio analysis;
2. Budgeting, and
3. Variance analysis

The concept of responsibility centre has not been applied for controlling Regional or Area Office, though higher executives consider Marketing Division as revenue centre for evaluation of their performance.

1. RATIO ANALYSIS

The ratios which are generally calculated for evaluation of performance (Results/output) by Marketing Division of this company are:

1.1 Profitability Ratio and
1.2 Turnover Ratio

These are two important profitability ratios are:

1.1.1 Gross Profit to Sales, and
1.1.2 Net Profit to Sales

As the company has not been in a position to earn either Gross or Net Profit for more than ten years or so, thus these ratios are not of much use for control. For control purposes Product profitability is an important indicator. But 95% of fertiliser sales come from Urea - and 82% of Total sales is from fertilisers, which makes product profitability analysis limited in scope.
1.2 Turnover Ratios

The other ratios which are calculated are called Turnover ratios. Mainly these ratios are calculated in this category.

1.2.1 Inventory Turnover ratio
1.2.2 Average Collection Period, and
1.2.3 Debtors to Sales Ratio

Marketing Division is more interested in these ratios than liquidity, leverage or valuation ratios.

1.2.1 To analyse the efficiency of inventories utilisation, the Marketing Division uses this ratio on yearly basis. The comparison is made with the previous year ratio. The company though uses this ratio but not for Regional and area offices.

1.2.2 The Company uses average collection period for control of debtors. On the basis of annual financial data this period is calculated. For products, seasons, regions and areas, the average collection period is not calculated.

1.2.3 For the company as a whole, the debtors to Sales ratio is calculated on yearly basis and is compared with the previous year ratio. The company does not analyse it for product, season, region and area offices.

For control of marketing inputs the company utilises many ratios related with marketing expenses. The broad areas for which the company calculates ratios are
highlighted with their intensity of use in the organisation.

1.3 Promotion cost to Sales Ratio

This ratio is calculated for efficiency measurement of promotion activities as to how much of sales revenue has already gone to promotion. This ratio is analysed with the past period ratios. The overall picture of resource utilisation in promotion emerges. This is the consolidated ratio of

1.3.1 Advertising expense to Sales ratio and

1.3.2 Sales promotion expense to Sales ratio

1.3.1 Advertising expense to sales ratio is calculated in the organisation on yearly basis. The executives consider that promotions have their impact on sales not only in the same period but in future period so this analysis is simply an indicator and not a 'valid guide' to take any action. The media cost and agency charges are also analysed in terms of total advertising cost for future planning and in current period control of expenses its utility is limited in the company.

1.3.2 The sales promotion to sales analysis is undertaken in this company on yearly basis on the pattern of advertising evaluation. With the help of past period ratio this expense is analysed. As there is more immediate impact of sales promotion activities on sales than advertising on sales in this industry so this ratio is more
close for evaluation of efforts in short run, said one executive in the marketing division. Field demonstration, village adoption programmes, soil testing etc. enhance sales and awareness among farmers so in the next cropping season its impact is evaluated. But this is not done on regular basis.

The individual programmes are not evaluated further with sales revenue generated from the total market or from that market where these programmes were conducted.

1.4. Distribution cost to Sales Ratio

Distribution cost in the company is one of the major components of total marketing cost. The company uses two types of ratios in this regard.

1.4.1 Distribution cost to total marketing cost ratio, and

1.4.2 Distribution cost to sales ratio

1.4.1 In case of first category of analysis, the components of distribution expenses are further broken down in transportation, packaging, handling, warehousing etc. They calculate the distribution cost to marketing cost ratio on yearly basis and compare it with the standard data available for fertiliser industry. Similar is the case with the components like transportation, warehousing etc. The deviation from standard, if significant, leads the organisation to cost reduction measures in future period as
this indicator is not of much use in current period control. The additional dimension of this analysis is that the company calculates this ratio product-wise and not season-wise.

1.4.2 To analyse the efficiency of distribution cost in relation to sales, the company uses the ratio of distribution cost to sales on yearly basis. The relationship is analysed with the past period relationship and it is utilised for budgeting distribution expenses.

1.5 Personal selling expense to sales ratio: This selling expense to sales ratio is calculated by the company on yearly basis. The informations are made available from the Finance section of Marketing Division.

There are mainly two types of ratios:

1.5.1 Personal selling expense to sales ratio, and

1.5.2 Personal selling direct expenses to Personal selling expense ratio

1.5.1 Personal selling expense to sales ratio, if varies significantly from the previous year ratio, the causes are analysed. The change occurs due to change in sales, or expense or both. The factors responsible are analysed and causes are marked for future period decisions.

1.5.2 For indepth study the company analyses the component of personal selling expenses like salary, T.A. and other expenses incurred on personal selling. As the salary is paid on straight line method so this ratio is not
of that much use. The other components are of variable nature having elements of decision for future period. Both the ratios are of importance for future planning, mainly budgeting.

1.6 Sales Administration cost to Sales Ratio: The ratio is calculated on yearly basis. Mostly the expenses are of fixed nature and due to cost escalation if the ratio shows an upward trend, the activities are not curtailed. This is the problem in implementation of corrective action. These expenses are also evaluated in terms of Regional office administration cost and the regional sales and Area Office to Area sales on yearly basis. The past period ratios are considered for evaluation. The Regional executives claim that the facilities should not be deleted on the basis of how does the expense appear in terms of revenue, as later is the result of many other uncontrollable factors.

1.7 The company does not go for the evaluation of marketing research to sales ratio. The opinion put forward by an executive was that the use of marketing research is limited as ours is a "price and product regulated market and the company is not earning profit".

2. BUDGETING

The concept of budgeting has got wider application in the organisation as a whole and in marketing cost control
in particular. For output control the company uses budget for sales.

2.1 Sales Budget

The Sales Budgeting is done in terms of volume of Products as they are based on ECA allocations and the value in terms of rupees. These budgets are made for products for Kharif and Rabi seasons for geographical areas. The evaluation of performance takes place on the basis of information provided by Regional offices on monthly basis. The causes of deviations are analysed and they are discussed in the regular meetings with the GM (Marketing). In case of non-achievement of the budgets, proper monitoring of promotion, distribution and personal selling efforts are done. The sales budget is widely used in this organisation.

For marketing cost control, the company adopts budget standard as the main criteria. The different types of budgets are used which have been grouped under these categories:

2.2 Promotion Budget
2.3 Distribution Budget
2.4 Personal Selling Expense Budget
2.5 Sales Administration Budget, and
2.6 Marketing Research Budget
2.2 Promotion Budget

The promotion budget is made for one year period. The two important classification of this budget are Advertising Budget and Promotion and Publicity Budget.

2.2.1 Advertising Budget: The advertising budgets are made for the company as a whole. The components of Budget are: (i) the expenses to be made on advertisement on different media like print, audio and audio-visual media. The product component is not of much importance as it sales more than 95% of fertiliser in the form of urea. The seasonal allocation is also not important as they consider that the impact of advertising expenditure will benefit the company throughout the year and afterwards. The review is done in terms of campaign launched and the campaign outstanding. If the cost is going to be more the proper justification is required. The magnitude of variation is calculated and causes are analysed. The executives are not expected to spend more than budget but if the charges increase during the period, proper sanction is required from higher management.

This is the basic approach for controlling cost. The different ratios are used as an additional indicator for early warning and for future planning.
2.2.2 Sales Promotion Budget

Promotion and Publicity Budgets are also prepared on a yearly basis. They have the components like the methods of promotion such as Field demonstration, village adoption, dealers development, soil testing etc. They are prepared for different regions and seasons. The Area office sends their report containing items of expenditure made on different programmes. Corporate office receives this report on a monthly basis during Kharif and Rabi season from Regional Offices. Monitoring is done with the help of budget but an element of flexibility is there, as based on the need of the market, one type of expense may be transferred to the other by taking proper permission from higher management. The total expense should not go beyond the limit fixed by the budget but 'generally it does not happen' as the executive in the Marketing Division told. Due to escalation of cost, the total amount is exhausted and expenses are generally more than the budget. In this case also, they are basic document for cost control.

2.3 Distribution Budget

Distribution Budget is prepared on a yearly basis. The major components of budget are packaging, handling, transportation and warehousing expenses. Due to escalation in freight of railways, the cost of transportation increases and additional provision is made to meet these
requirements. This leads to variation from the budget. Such types of transportation costs are beyond control of the company. Similarly the warehousing, handling, packaging charges etc. are evaluated on seasonal basis.

2.4 Personal Selling Expenses Budget

Personal selling budgets are prepared on yearly basis. The component of the budget are Salaries, T.A., Entertainment allowances and others. They are prepared for Regional and Area Offices also. As salary is paid on straight line basis so the fixed component hardly lead to variation. The main cause of variation is in the T.A. and other allowances. Quarterly through yearly review of expenditure is made. The corrective action is in the form of counselling to the sales officer and in the meeting of Regional managers, they are also asked to take measures to control expenses made by their section.

2.5 Sales Administration and Marketing Research Budgets

The company does not prepare Marketing Research Budget and the expenses for such activities are included in advertising expense, mainly in agency charges. Sales Administration Budgets are prepared for one year period. They are broken down for Regional and Area offices on the basis of which they are evaluated on quarterly basis.

3. VARIANCE ANALYSIS

Variance analysis is also adopted by the company which is linked with the budget. They are related with
output and input side. As it has been explained earlier that the budgets are used for control of costs and a comparison is made with the help of budget. This is aggregative analysis.

The application of variance analysis is for volume variance. As the price of most of the products were fixed for many years so the company has been calculating only volume variance. But since the govt. budget of 1991-92 the prices have fluctuated over the periods so now the company will go for price variance also. Based on these two the mix variance will also be used by the marketing division for revenue control.

The additional element in the variance analysis is that it is not calculated separately for Region and Areas and over the seasonal time horizon.

For budget progress reporting, the favourable and unfavourable variances are calculated for the respective period of study and the other variables.

4. RESPONSIBILITY CENTRE

Marketing Division has not been considered as revenue centre. The Regional and Area offices also have not been considered for evaluation on the basis of responsibility centre.
IV. MARKETING KEY VARIABLES

The company executives consider that there are some key areas which are so critical for the Marketing Division and the Corporation that if overlooked, will badly effect the farmers and the company. The Company strives hard to make sure that those variables should not go out of control.

The executives are of the opinion that the key variable which is most sensitive to our objective is of fertilisers to the farm during the seasons. This is so basic to the Marketing Division that if it is not made sure, farmer and the company will be at a loss.

The other key variables considered for control in the Marketing organisation are:

(i) Quality and weight
(ii) Customer awareness about fertiliser use
(iii) Customer satisfaction
(iv) Cost reduction (Marketing mainly), and
(v) Proper packaging and Transportation

They consider these variables in order of priority.
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6. Ibid.


13. Meeting the Needs of Indian Agriculture, FCI, Broucher, New Delhi, pp.14-16.

CHAPTER V
CASE STUDY OF
HINDUSTAN FERTILISER CORPORATION LIMITED (HFC)

In two sections the case of HFC has been discussed in this chapter. The first section explains the profile of the company along with its recent performance in certain areas. The second section is meant for discussion on the application of marketing control systems in this company. The pattern of presentation is as per the previous chapter and based on the objectives of the study.

SECTION-1

HINDUSTAN FERTILISER CORPORATION LTD (HFC) : A PROFILE

1. GENERAL INFORMATIONS

HFC was incorporated on 14th March, 1978 as a company under the Companies Act, 1956. Its formation was the result of reorganisation of FCI and NFL companies. The plants and divisions placed under the control of HFC were Durgapur, Namrup and Barauni, Project at Haldia (under construction), Eastern Marketing Zone, Fertiliser Promotion and Agricultural Research Centre, Purchase and Liaison Office, Calcutta and Agronomy wing at Sindri.¹ The Company has three production units at Namrup, Durgapur and Barauni.

The Haldia Project was mechanically completed in 1979 but this could not be commissioned due to non-availability
of power. Hence, the government approved 20 MW gas turbine which was commissioned in January 1982. As there were frequent equipment problems, the government decided in 1986 to stop commissioning. In 1988, the consultants recommended for about Rs 500 crores investment for its rehabilitation. Alternative options are being explored to see whether some activities can be started at Haldia. Proposal to set up a new grass-root DAP plant is under consideration by the government for this project.

All the plants/projects/Divisions are mainly in Eastern part of this country.

The status of the company at present is as under:

Registered Office : 55, Madhuban, Nehru Place, New Delhi
Marketing Division : Chowringhee Street, Calcutta

Operating Units and their capacities etc. (as on 31st March 1991).

<table>
<thead>
<tr>
<th>Plants</th>
<th>Year of commissioning</th>
<th>Feedstock</th>
<th>Installed capacity in 000' tonnes of Nitrogen</th>
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<td>1974</td>
<td>Naphtha</td>
<td>152.0</td>
</tr>
<tr>
<td>Barauni (Bihar)</td>
<td>1976</td>
<td>Naphtha</td>
<td>152.0</td>
</tr>
<tr>
<td>Namrup (Assam)</td>
<td>1969,87</td>
<td>Natural Gas</td>
<td>349.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>653.0</td>
</tr>
<tr>
<td>Haldia Project</td>
<td></td>
<td></td>
<td>Not yet commissioned</td>
</tr>
</tbody>
</table>
Capital of the Company⁵:

Authorised capital 75,00,000 equity shares of Rs.1000 each Rs.750.00 crores
Paid up capital 64,61,218 equity shares of Rs.1000 each Rs.646.12 crores
Net Fixed Assets Rs.281.72 crores
Total number of employees⁶ 10,474

2. PERFORMANCE

The production, sales and financial performances are analysed on the basis of absolute production and capacity utilisation, sales revenue and profitability as well as dividend payments made over a period of time.

2.1 Production Performance

TABLE 5.1: Production Performance and Capacity Utilisation of HFC ('000 MT) of Nitrogen

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual installed capacity</th>
<th>Production</th>
<th>Capacity utilization (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>653.0</td>
<td>214.8</td>
<td>32.9</td>
</tr>
<tr>
<td>1986-87</td>
<td>653.0</td>
<td>204.5</td>
<td>31.3</td>
</tr>
<tr>
<td>1987-88</td>
<td>653.0</td>
<td>289.2</td>
<td>44.3</td>
</tr>
<tr>
<td>1988-89</td>
<td>653.0</td>
<td>240.1</td>
<td>36.8</td>
</tr>
<tr>
<td>1989-90</td>
<td>653.0</td>
<td>237.1</td>
<td>36.3</td>
</tr>
<tr>
<td>1990-91</td>
<td>653.0</td>
<td>207.8</td>
<td>31.8</td>
</tr>
</tbody>
</table>

Source: Compiled and calculated from Table No.I-1.01 of Fertiliser Statistics of respective years, Fertiliser Association of India, New Delhi
The Table 5.1 indicates that the company has never been able to achieve the capacity utilisation of more than 44% in last six years. Since 1987-88, the production has always been less than its previous year. The minimum capacity utilisation has been in the year 1986-87 and the maximum in 1987-88. The average capacity utilisation during these years have been 35.5%. It indicates that the company is not working successfully on its production front.

The causes of poor capacity utilisation are many in different units. The general causes are power interruption, equipment breakdown, short supply of natural gas, industrial relation problems, raw material shortage, extension of annual turnaround etc. The industrial relation problems are mainly in Durgapur Unit.

For rehabilitation and revamping of aging plants, there are many proposals with the government and they are under active consideration.
2.2 Sales Performance

Table 5.2: Sales Revenue generated by HFC (Rs. in crores)

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Sales</th>
<th>% change over the previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>190.32</td>
<td>-</td>
</tr>
<tr>
<td>1986-87</td>
<td>189.32</td>
<td>(negligible)</td>
</tr>
<tr>
<td>1987-88</td>
<td>196.61</td>
<td>3.9</td>
</tr>
<tr>
<td>1988-89</td>
<td>237.76</td>
<td>20.9</td>
</tr>
<tr>
<td>1989-90</td>
<td>201.80</td>
<td>(15.12)</td>
</tr>
<tr>
<td>1990-91</td>
<td>212.08</td>
<td>5.09</td>
</tr>
</tbody>
</table>


The sales performance indicates that it has increased from Rs. 190 crores in 1985-86 to Rs. 212 crores in 1990-91. During the period of 1985-86 and 1987-88 the fluctuation in sales revenue has been very marginal. The increase in sales revenue in 1987-88 is due to the increased production in that year. After that period the sales has increased by 21% in 1988-89 from its previous year.

In terms of volume of Nitrogen during the year 1990-91, the company sold 259.2 thousand MT as against 237.0 thousand MT in the previous year. It shows a decrease of 8% in sales volume.
2.3 Financial Performance

In the last decade, the company has not witnessed even a single year when its profit figures either gross or net have been placed without brackets. The magnitude of losses are very high. The company has not paid dividend for many years and the net worth of the company is also negative for the last four years. It has contributed to the national exchequer Rs.20 lakh each in 1989-90 and 1990-91.

Table 5.3: Profit performance and dividend payment by HFC

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Loss (Rs.in crores)</th>
<th>Dividend</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>(71.56)</td>
<td>-</td>
</tr>
<tr>
<td>1986-87</td>
<td>(86.22)</td>
<td>-</td>
</tr>
<tr>
<td>1987-88</td>
<td>(104.84)</td>
<td>-</td>
</tr>
<tr>
<td>1988-89</td>
<td>(156.38)</td>
<td>-</td>
</tr>
<tr>
<td>1989-90</td>
<td>(169.79)</td>
<td>-</td>
</tr>
<tr>
<td>1990-91</td>
<td>(231.45)</td>
<td>-</td>
</tr>
</tbody>
</table>


On the overall performance basis it can be said that the company is not in viable condition. The production performance have the direct impact on sales revenue and profitability.
3. Marketing Operations

3.1 The fertilisers of HFC are marketed in the brand name of MOTI. The product profile of the company includes Urea, Ammonium sulphate, Nitrophosphate as fertilisers and Urea, Sulphuric acid, Ammonia, Carbon dioxide and Methanol as industrial products. It also supplies DAP, Urea, NPK fertilisers bought out from other organisations and pooled fertilisers purchased from foreign countries.\[11\]

3.2 The fertilisers are sold at government controlled prices where the industrial products are sold on prevailing market price. The company allows credit also but its main thrust is to sale on cash and carry basis. The debtors to sales ratio as on 31st March, 1991 was 23.2% as compared to 17.4% as on 31st March, 1990.\[12\]

3.3 For proper coverage of the market, the organisation has its own system of monitoring. Separate Marketing Division has been created, which is headed by GM (Marketing) who holds office in Calcutta due to its concentration of market and units in eastern part of the country. He is assisted by Dy GM (Marketing). Under the Division, there are Regional offices which are generally in the capitals of the States. But it is not for all the states where the company is operating but some states have been clubbed together. The eastern states are small in area so it is not feasible to create Regional Offices in all capitals. Under the Regional offices the Area offices
work. The Area Offices are manned by Deputy Marketing Manager, or Area Manager (Sales). The Areas are divided into territories where the Sales Officers/Senior Sales Officers/Field Representatives are appointed. The territories are either one district or combination of districts. The organisation chart of the Marketing Division has been depicted in Chart 5.1. It is the networking of organisational hierarchy.

Board of Directors

Chairman and Managing Director

GM (Marketing)  

GM Unit

Dy GM (Marketing)

CMM/Dy MM  

CMM/Dy MM (Regional Head)

CMM/Dy MM

DY MM/Area Manager  

DY MM/Area Manager (Area Office)

SS/SSO/FR

Chart 5.1: Chart showing the Marketing Organisation of HFC.
3.4 HFC markets its products mainly in North and North-Eastern states of the country. As per the allocation under Essential Commodities Act (ECA) the products are sold. The states which are covered by HFC are Bihar, West Bengal, Assam, Orissa, UP, Punjab, Sikkim, Manipur, Mizoram etc.

3.5 To make fertilisers available to the farmers during cropping seasons, two types of channels are used by the company—private dealers and institutional agencies. The dealers are appointed through press advertisement and care is taken that S/C, S/T and Ex-servicemen are given special preference in appointment.

Generally two modes of transport are applied for shifting fertilisers from plant to the block headquarters—railways and roadways. Major amount of fertilisers are shifted by the railways.

As the production continues throughout the year except breakdown or stoppages and consumption takes place during cropping seasons, so the godowns are maintained by the corporation at different places. Central Warehousing Corporation or State Warehousing Corporation provides this facility to the company.

3.6 For promotion of its own brand 'Moti' and for the popularisation of fertiliser use, the company undertakes many types of advertising and sales promotion activities.
For advertisement purposes, print as well as audio and audio-visual medias are used.

For sales promotion activities there are number of programmes in which the company is engaged like kisan melas, village adoption programme, mini kits distribution, block demonstration, field days, soil testing, crop seminars etc. They are organised on need basis.

In Assam and North Eastern region where fertiliser consumption is very low, 489 demonstrations were laid down, 101 farmers training programmes, 1723 group discussions and 510 field days were organised.

The company is engaged in Indo-British Fertilizer Education Project aided by Government of U.K. The objective of the project is to increase the level of fertiliser consumption and educate the farmers in scientific fertiliser usage by adopting the intensive development approach.

The first phase of the project was for five years period commencing from Rabi season of 1981-82. The funding was agreed for IIInd phase to implement this programme in few more districts of the six states. The phase I was funded to the tune of £ 13.1 million where for II phase it is £ 22.2 million. Each year the provision is made for release of fund. In 1990-91 a provision of Rs.780 lakh was made out of which Rs.767 lakhs was spent. For 1991-92 also
The programme is being implemented in 30 selected districts of Assam, Bihar, M.P., Orissa, U.P. and West Bengal.  

Under Indo-British Fertiliser Education Project in 1990-91, block demonstration were laid out in 23,846 hectare of land in six project states. A total of 52,597 farmers participated, of which majority belonged to marginal category. A total of 2.46 lakh soil samples were analysed.

Similarly, the company is also engaged in rainfed farming project. The aim of this project is to develop a low cost farmer participatory approach and to encourage the development and adoption of improved low cost rainfed farming technologies for different agro-ecological situation in eastern region. The project is financed by the Government of U.K. for 5 years period. In the budget of 1990-91 Rs 1 crore was provided out of which Rs 73.20 lakhs was utilised. In Bihar, Ranchi, Plamau and Hazaribagh; in West Bengal, Birbhum and Purulia; and in Orissa, Denkanal districts have been selected for this project. In total there are 45 villages where the programme is under implementation. In 1990-91 under rainfed farming project 556 farmer trails were laid, out of which 56% were in farmers fields belonging to deficit group.
The company spent Rs 1.11 lakhs as advertising charges in 1990-91 which was Rs 4.62 lakhs in 1989-90. On exhibition, field demonstration and soil testing the company spent Rs 3.48 lakhs in 1990-91 which was 50% less than the previous year. On other publicity outlets the company spent Rs 11.86 lakhs in 1990-91 which was 67.5% less than the previous year.\textsuperscript{18}

The performance of the company as a whole has not been satisfactory in terms of production, sales and profitability. The continuous losses sustained by the company has placed it in very awkward condition in terms of capital erosion. But the projects for farmers education and popularisation of fertilisers are well implemented. The strikes and frequent breakdown in the plants are pertinent causes for low capacity utilization.

SECTION-2

CASE DISCUSSION

This section deals with the discussion of the application of marketing control systems in Hindustan Fertiliser Corporation Ltd (HFC). As per the sequence of specific objectives laid down in chapter II and the presentation pattern of case study in chapter IV, the discussion in this chapter follows.
I. MARKETING CONTROL PRACTICES

The Hindustan Fertiliser Corporation Limited (HFC) mainly adopts only two types of control namely, annual plan control and efficiency control. The profitability control and strategic control are not adopted in the organisation. It is clear that the company is not earning profit for more than a decade so stress on profitability is not that much as it is in other profit making organisations. Marketing audit as an instrument of strategic control has not been adopted as the executives made it clear. Even the component of the audit has not been considered for evaluation purposes.

1. ANNUAL PLAN CONTROL

The annual plan control applied in this organisation are of three types:

1.1 Sales Analysis
1.2 Market Share analysis, and
1.3 Customers attitude tracking

1.1 Sales Analysis

The annual sales are monitored by the company with the help of standard set by the General Manager (Marketing) in Sales Budgets. These annual sales are delineated up to district level and commensurate with the ECA allocations for both the seasons separately.
The product-wise and area-wise sales are broken down for two seasons Kharif and Rabi and analysis is done on monthly through yearly basis. Urea is the main product constituting more than 98% of total material produced and generating more than 87% of total sales revenue. Ultimately the analysis is more for urea sales. Next to urea are DAP and NPK (15:15:15) fertilisers which are not manufactured by the company but are sold as a bought out product either from RCF or from the pool of imported material.

The Sales Officers are working in the market and they report on weekly basis about lifting of material. This reporting is done to the Area Office from where the reports of other districts are also compiled and sent to the regional offices. On monthly basis regional office reports are sent to the Marketing Division which is located in Calcutta. This is the channel of sales reporting. The sales revenue information is taken from the Accounts section of the Marketing Division which is generally delayed. The meetings are frequent during the Rabi and Kharif season, held on monthly basis at Regional offices and are attended by the Area Managers and Sales Officers. Monitoring is done to achieve the set target for the market. The factors are analysed thoroughly. The other meeting which takes place at Marketing Division level is of
the Regional Managers. The periodicity of the meeting is not specified but it is more frequent during the cropping seasons. The executives consider these monitoring as the main effort in the direction of control, and reporting as the support for monitoring.

1.2 Market Share Analysis:

The company analyses market share on yearly basis. They do not take into account the overall market share but the two indicators of market share are considered—allocated market share and the relative market share with the public sectors operating in that area. The executives consider only these two as important because the geographical market segmentation is perfectly implemented and one can not sell in more than allocated area. As the allocation is high and competition stiff the market share calculation is having relevance.

Comparison is made with the help of last year’s share and the change in the market share of other competitors. The annual figure of the companies are available with Fertiliser Association of India, and Ministry of Chemicals and Fertilizers. The allocation made for different states and the manufacturers are published by the Ministry for both the seasons so the information is not a problem for evaluation.

As far as causes of reduced or increased market share is concerned, generally they are attributed to the
environmental factors like draught, flood, etc. The internal factors responsible are mainly the erratic supply from the company during the cropping season. The second factor effects the particular company as the dealers sell the product of other company. The corrective actions for future are to monitor the dealers, Sales officers and transportation network. Stock position in the warehouses are improved before cropping seasons.

1.3 Customers Attitude Tracking

To know the attitude of customers regarding the product and company image, mainly two sources are adopted.

(i) The Sales-force while working in the market have interactions with customers and dealers. They give their opinion about the product and the company. The sales-force in their turn report it to the Area Manager in weekly reports.

(ii) The complaints and suggestions are also encouraged by the company. These complaints and suggestions sometimes come directly to the Marketing Division but most through the Area or Regional Manager.

These complaints and suggestions are discussed in the Regional and Divisional meetings. The executive in the Marketing Division claimed that these informations are generally of short term nature, requiring immediate action
at lower level. Very few suggestions have long term implications.

The company generally does not opt for detailed opinion survey or customer panel discussion.

2. PROFITABILITY CONTROL

The executives clearly acknowledge that there is a need to calculate profitability of the products, territories and channels, whether it is profit making or loss making organisation. But the Company does not go for this analysis. The reason put forward by the executive in Marketing Division is that Urea is the main product responsible for major contribution towards revenue and profitability. As it is a loss making concern, the ultimate cause of loss is urea and its sale. So the product profitability is not that important. Secondly, the company can not drop the products of fertiliser from its line even if it is unprofitable and similarly, the market can not be changed. The only purpose which this analysis can serve is to curtail expenses in future period if it is fixed that such activities are consuming more resources than the amount of revenue they generate. For that purpose, it is not going to serve as an independent measure as there are many methods applied in this company for similar conclusion and decisions. Only Gross Profit and Net Profit to Sales
ratio are calculated on annual basis for previous year comparison.

3. EFFICIENCY CONTROL

3.1.1 Advertising Efficiency

On irregular basis the Company measures the efficiency of advertising campaigns. By the marketing Department, this is measured generally when the campaign is over. But this is not for all programmes. The data source is the advertising section of the company and the corrective action is futuristic. The company does not take help of any other outside agency for evaluation.

3.1.2 Sales Promotion Efficiency

Sales promotion is one of the main activities for promoting sale of fertiliser by the company. It adopts programmes like Soil testing, Kisan Melas, mini-kit distribution etc. The evaluation of these programmes are done by the field staff. On seasonal basis these programmes are analysed on the basic premise of awareness about companies brand and the fertiliser. The opinion of customers is taken for the purpose of evaluation of the programme. If the programme has not been properly implemented, the corrective actions are generally taken for changing the programmes and diversion of resources to the other programmes. Sometimes change of the season is there but regional change of the programme is difficult.
3.2 Distribution Efficiency

3.2.1 Channel Efficiency

In distribution of fertilisers, multiple agencies are involved. Different types of channels are adopted. They are classified as private channel and institutional channel. The basic parameter is the lifting of fertilisers by the different channel and channel members. These channels are analysed on monthly, quarterly and seasonal basis for which the data are provided from Regional offices. The Marketing Division analyses the data and the corrective action is initiated. But the executive consider that its application in monitoring is limited as we can not change the total channel. Individual area analysis is important for corrective action.

3.2.2 Transportation Efficiency

Mainly rail and road transports are used for fertiliser movement. The company evaluates the movement of fertiliser in terms of quantity from the unit to the field. Seasonal movement analysis is done. Contracts are given to the transporters on yearly basis and if they do not satisfy the requirements, renewal of permit for future period is not granted. The factors which are outside of the control of transporters like strike, road blockade etc. are taken into account while evaluating their performance. Sometimes payments are also stopped but these two alternatives create
bad image of the transporter. So they try to supply fertilisers in time to their destination.

4. STRATEGIC CONTROL

The concept of marketing audit has not been adopted by the company. For marketing environment audit, the executives are of the opinion that the policies are formulated by the government and multiple agencies are involved in its analysis. There is no need to go into its further detail. Similarly the task environment is also not considered important for evaluation and control. The micro-analysis of marketing organisation audit to evaluate formal structure, sufficiency of functional efficiency and marketing system audit has never been undertaken.

II. SALESFORCE CONTROL SYSTEM

The Sales persons or Salesforce in the organisation are having different designations - District Sales Officers or Senior Sales Officers, Field Representatives and Jr. Sales Officers. Their duties are the same with varying degree of scale of pay. The overlap in designation is due to time-bound promotion scheme adopted by the Company. The duties assigned to them can be summarized below:

(i) To help the dealers and customers in promoting the distribution and use of fertilisers.

(ii) To collect money from the dealers for onward transmission.
(iii) To organise sales promotion programmes in their region and to monitor on-going programmes.

(iv) To help the agencies involved in distribution of fertilisers, and

(v) To give regular report about the sales and market.

The Sales Officers operate in the market and undertake the assigned duties from their own residence. This enables the company to reduce the cost and burden of administration.

1. TERRITORIES

The Sales Officers are assigned territories which are the administrative districts or combination of some districts. So the geographical segmentation or territorization has been accepted for assignment of Sales Officers. The company has adopted the following methods of Salesforce control:

2. Quota achievement

3. Sales Budgeting

4. Efficiency Analysis, and

5. Qualitative evaluation

2. SALES QUOTA

The Sales officers are under the supervision of Area Manager (Sales). They monitor and control the activities of Sales Officers. For monitoring purposes, the Company sets product-wise unit sales volume quota for individual
sales officers for Kharif and Rabi seasons. The evaluation is done by the Area Manager (Sales) for which the Sales Officers have to submit their weekly reports positively. In case of non-achievement of quota, the causes are analysed. The uncontrollable causes like draught, flood, bad weather condition etc. are segregated. The executives consider that to monitor the activities of sales officers, those factors are taken into account which are influenced by them. If the external conditions are normal and the quota has not been achieved, then the failure on the part of Sales Officer's effort is clear.

They hold meeting at the Regional level at least once a month to access the situation. This meeting is for bringing the Sales Officers on line and a continuous failure of a Sales Officer will lead to issue of warning letter and the harsh decision of transfer is also taken.

The Company sets dealer-wise quota also. The executives in the organisation believe that the Sales Officers are directly related with the dealers so it is the responsibility of Sales Officers to monitor their performance which leads to higher off-take of fertilisers and ultimately, the sales of the district increases. This is an additional effort on the part of the company to monitor both sales officers and dealers.
The Company does not set sales activity quota or combination quota.

3. SALES BUDGET

In this company, the sales budgeting concept has been adopted for controlling sales officer's activities. The budget contains the revenue to be generated from the territories and the expenses to be made on personal selling. These expenses are salaries, travelling expenses and other allowances. The estimates of these expenses for one year are passed on from Area Offices to the Regional Office and ultimately to the Marketing Division of the company. Quarterly monitoring of these expenses are done at Regional office as these expenses are paid on monthly basis. It is tried to keep the expenses within the budgeted limit.

The feature of the Sales budget in this company is that the expenses are not linked with Sales, Gross or Net Profit.

4. SALESFORCE EFFICIENCY

4.1 Sales Calls

The company is not particular about efficiency analysis which is clear from the fact that the calls have not been seriously thought for controlling the Sales Officers. The indicators are not used by the company on the basic idea that calls are neither going to generate sales nor making calls are important in this business. The
Sales Officers are mainly directed towards monitoring dealers and educating farmers with the help of Sales promotion programmes.

4.2 Personal selling expense to Sales

To analyse the efficiency of Sales Officers in this organisation, the company adopts the ratio of Sales Officer's expense to sales revenue generated during a specified period. The total expenses including salaries, travelling allowances, and other expenses are taken together and they are evaluated with the help of sales from the territory, on seasonal basis. This ratio is compared with the previous period ratio. The company is interested in keeping the ratio low.

4.3 Responsibilities Evaluation

4.3.1 Promotion

There are other responsibilities assigned to the Sales officers than the generation of sales revenue. They are engaged in those programmes. The main activities other than selling are:

Promotion, collection, reporting, warehouse monitoring and dealer development. For some of them subjective evaluations are done, like in case of promotion, their active and successful participation in subjectively evaluated after the programme is over.
4.3.2 Credit Collection

The credit collection is evaluated on the basis of total sales, credit sales and collection made during the period. If the credit sales are increasing and the corresponding collection is not being made, the Area Manager gives early warning for special collection effort.

4.3.3 Reporting

Similarly, the weekly report is required to be submitted during Rabi and Kharif seasons. The reports are evaluated on the basis of periodicity and the content of the report. The content is analysed in terms of its analytical reporting and comprehensiveness. Area Managers who generally visit the Sales territories always counsel and in the Regional Managers monthly meetings the Sales Officers are detailed about the amount of seriousness shown in reporting.

4.3.4 Dealer Development

The Sales Officers organise the programme for dealers development. These programmes are for individual or for collection of dealers. They are being trained in selling fertilisers, collection of proceeds, transportation, utilisation of godown space etc. The Sales Officers are evaluated from time to time on the basis of number of such programmes organised.
4.3.5 Warehouse Monitoring

For warehouse monitoring, the Sales officers have to visit the company owned or hired warehouses to see that the fertilisers are available in them. Mainly during Rabi and Kharif seasons, they have to ensure that the warehouses have been fully utilized and there is no supply bottleneck in the market. Company does not pay more attention in evaluation of Sales Officers on the basis of number of visits made by them to the warehouses. The Sales Officers are required to report the availability of space in warehouses in their weekly report.

All the above evaluation systems call for corrective action. After review of the situation, the Area Managers, firstly try to monitor and warn them for more effort and better performance. If the continued warning fails to deliver the goods, they recommend to transfer the Sales Officers from one to the other district. Retrenchment is not possible in this organisation. Even the transfers are generally resisted.

4. BEHAVIOUR BASED EVALUATION

The qualitative evaluation of Sales officers are not undertaken. The customers or dealers opinion are also not taken from time to time. The other indicators like co-operativeness, resourcefulness, and public relations, are also not forming the basis of evaluation of district Sales Officers.
III. ACCOUNTING TECHNIQUES FOR MARKETING CONTROL

The Company at corporate level, for output or input control purposes, uses some Accounting control techniques. Some techniques are being applied for indepth analysis by the Marketing Division, where the others are supplement to the basic method of control.

The techniques applied are:
1. Ratio analysis;
2. Budgeting, and
3. Variance analysis

The concept of responsibility accounting has not been accepted for controlling the Regional or other Marketing units.

1. RATIO ANALYSIS

There are mainly two broader categories of ratios which are calculated for output control in this company.

1.1 Profitability Ratio, and
1.2 Turnover Ratio

1.1 Profitability Ratio

For evaluation of profitability these two ratios are generally used.

1.1.1 Gross Profit to Sales ratio, and
1.1.2 Net profit to Sales ratio

Although they are used but the overall profitability ratio is not being considered important by the company executives mainly for two reasons.
(i) The company has not been able to earn even gross profit for many years and (ii) this ratio is calculated after the financial year is over, so for current period control its scope is limited.

The company does not adopt the product profitability also. The product profile of the Company is limited and major amount of revenue comes from urea (88% of total fertiliser sale) which makes the utility of this analysis limited.

1.2 Turnover Ratio

In the category of Turnover Ratios the following ratios are calculated:

1.2.1 Inventory Turnover Ratio
1.2.2 Average Collection Period, and
1.2.3 Debtors to Sales Ratio

The Marketing does not calculate receivable turnover ratio and the executives in the division are also not concerned about liquidity, leverage or valuation ratio.

1.2.1 The inventory turnover ratio is utilised by the Marketing Division to analyse the efficiency in maintaining inventories. This ratio is not applied for Regional and Area offices of the company. On yearly basis with the help of financial reporting these ratios are calculated and compared over the years. A decrease in the ratio is a sign of poor inventory management.
1.2.2 The company is particular in collection of debts and the average collection period is calculated on annual basis. The Marketing Division does not analyse the average collection period either by product sale or over the seasonal sales in different Regions and Areas.

1.2.3 Debtors to sales ratio is indicative of the credit sales in terms of total sales during the period. This is a matter of concern for the company when the ratio increases over the year. The comparison is made in terms of previous year sales, debtors and their ratio. This is analysed on yearly basis. The in-depth analysis of product, season, Region and Area is not done by the company.

The broad areas of input control by the Marketing Division where the ratios are used have been investigated are like this:

1.3 Promotion Cost to Sales Ratio

This ratio is calculated to measure the efficiency of promotion activities and is compared with previous period ratio. The approach of control is futuristic in nature as when the budgets for the coming period are to be prepared this ratio is an effective guide.

There are two ratios in this category.

1.3.1 Advertising to Sales Ratio

Advertising expenses to sales is calculated on yearly basis and it works as a guide for future planning. The
indepth analysis of media cost and agency charges are not analysed in terms of total advertising cost. The executives in the Marketing Division are of the opinion that the charges are generally budgeted so this ratio is not of particular use in the organisation.

1.3.2 Sales promotion to Sales Ratio

Sales promotion expense to Sales ratio is utilised on yearly basis for evaluation of promotion expense as input and resultant sales as output. Though the Company is not evaluating the impact of promotion programmes in next cropping season regularly but the executives consider that it is a valuable guide for discontinuing or continuing the promotion programmes in the region. The ratios are evaluated with previous year ratio.

The other view expressed has been that there are some programmes which are more educative in nature and sales will not be the proper guide so additional research activities will have to be undertaken with some other parameters to evaluate its impact. Secondly, the company uses many methods of promotion in the same area so the segregation of impact of one from the other is difficult. Thus the company has not made it a regular feature.

1.4 Distribution to Sales Ratio

The company uses two ratios in case of distribution efficiency analysis. These ratios are calculated on yearly basis:
(i) Distribution cost to total marketing cost ratio; and

(ii) Distribution cost to Sales ratio

1.4.1 The industry data are available in respect of distribution cost to total marketing expenses. With these data this company compares its own ratio. The major component of distribution expenses are transportation, packaging, handling, warehousing etc. Significant departure from the industry ratio is considered to be alarming for future cost reduction measures. The company does not evaluate this ratio product-wise or season-wise.

1.4.2 The company also takes help of distribution cost to Sales ratio on yearly basis and they are compared with the previous year data. This ratio is used as an indicator for future period budgeting distribution expenses.

1.5 Personal Selling Expense to Sales Ratio

Personal selling expenses to sales ratio is also calculated on yearly basis and that is compared with the previous year ratio. Any increase in ratio is due to changes in Sales or expenses or both. The use of this ratio is for future planning.

The company does not go for analysis of individual item of expenses like salary, travelling allowances etc. in relation to total personal selling expenses. The executives consider that the budget is more important guide
for control than the ratio and some of the components like salaries are of fixed nature.

1.6 Sales Administration and Marketing Research to Sales Ratios

The company does not calculate the Sales administration to Sales ratio and Marketing research to Sales ratio.

2. BUDGETING

The company applies budgets in controlling output and input of marketing division. Sales Budget is related mainly with output. This is prepared for the company as a whole and forms the part of over all planning of the company. It is prepared in terms of volume of products and the rupee value for Kharif and Rabi seasons. The sales budgets are further broken down for regions, area and territories. For evaluation purposes, the reports come from the Regional Offices on monthly basis GM (Marketing) holds the meeting till the next fortnight of the coming month. The causes of non-achievement is analysed in the meeting and future directions are given for effective marketing efforts.

For input control, the company uses different budgets. These budgets have been grouped as under:

2.2 Promotion Budget

2.3 Distribution Budget
2.4 Personal Selling Budget
2.5 Sales Administration Budget, and
2.6 Marketing Research Budget

2.2 Promotion Budget

Promotion Budget has got two important components. Advertising Budget and Sales Promotion Budget and Publicity. The budgets are prepared for one year period.

2.2.1 Advertising Budget

The advertising budgets are prepared for the company as a whole. The break-up of the budget is mainly on media, agency and administration charges. The seasonal allocation of the advertising expenses are not done. Similarly the product-wise allocation of advertising expenses is also not there. Mid-year review of expenses is done. The executives are not expected to overspend the budgeted amount. If, due to cost escalation the additional amount is required the company may provide it.

The variance from the budget is calculated with the actual expenses. This variance is supplemented with the ratio of advertising to Sales.

2.2.2 Sales Promotion Budget

Promotion and Publicity budgets are prepared on yearly basis which is broken down as per season and regions. The budget progress report is sent on monthly basis by the Regional offices during Rabi and Kharif
seasons. The executives consider that the total amount of expense should not be more than the budget but the items on which these expenses are to be made can be changed. But this change or reallocation should be properly justified on economic ground.

2.3 Distribution Budget

Distribution Budget is also prepared on yearly basis and the components of the budget are packaging, handling, transportation etc. expenses. Other than transportation, the expenses are analysed on seasonal basis. As the major amount of fertiliser is transported by Railways and due to escalation in freight, budget overrun is common. Such type of cost escalation are beyond the control of the company.

2.4 Personal Selling Expense Budget

Personal selling budgets are prepared for the company for one year period. The budget contains salaries, travelling expenses and other expenses. Other than salaries (which are paid on straight line basis) the components are variable in nature so quarterly review of these variable expenses are done. The corrective action is initiated in the GM (Marketing) meeting.

2.5 Sales Administration Budgets

The company for controlling Sales Administration expenses prepared the yearly budget. This budget is broken down for Regional Office and Area Office expenses. For current period control, quarterly review is done.
2.6 Marketing Research Budget

Marketing Research budget is not prepared in this organisation as the amount spent is negligible. The expenses are taken from advertising budgets.

Though for controlling costs the budgets are the main document but they are supplemented by the ratio analysis mainly on year-end review. The budget variance of two different periods are also taken for detailed evaluation.

3. VARIANCE ANALYSIS:

There is limited use of variance analysis in marketing control of output. The volume variance of sales have been in use but that is also not on regular basis. The standard for analysing variance has been the sales budget. The price variance was not taken into account as the prices used to remain unchanged over the years. Similarly mix variance is also not used.

In case of marketing cost controls where the budgets form the standard, variances are used widely. Actuals are compared with the budgeted standards and the variance in terms of favourable and adverse are calculated. These variance are of much use for early warning and current period control.

The variances for seasons and regions are calculated separately for limited number of expenses.
4. RESPONSIBILITY CENTRE

The concept of responsibility centre has not been applied in marketing. For evaluation purpose the cost control and revenue generation are emphasised. The evaluation of division is neither as revenue nor as a profit centre. Similar is the case with Regional and Area Office.

IV. MARKETING KEY VARIABLES

Considering the nature of the company and its profitability, the executives in the Marketing Division consider the key control variables differently. They are of the opinion that Sales revenue generation or cost reduction of marketing activities are important but we may compromise upto certain extent on these variables but not on that which will reduce the utilisation of fertiliser by the farmers.

The sensitive control variable which may effect the objective of the organisation is "the popularisation" of the product in North Eastern States and Assam". It is the corner stone of our effort and if overlooked will lead to reduced, non-judicious and imbalanced use of fertiliser which will badly effect the farmers and economy, said one of the marketing executives of the company.

The other key variables which are always noticed for control in order of priority are:
(i) guaranteed supply of fertilizer during seasons
(ii) Marketing cost reduction
(iii) Quality and weight
(iv) Proper packaging and transportation, and
(v) Customer satisfaction
REFERENCES


2. Ibid., pp.24-25.


4. Fertiliser Association of India, New Delhi, Fertiliser Statistics, 1990-91, Table 1.01,


6. Ibid., p.10.


11. Ibid., p.57.


13. Ibid., p.10.


17. Ibid., p.67.

CHAPTER VI

CASE STUDY OF NATIONAL FERTILISERS LTD (NFL)

As per the pattern of previous chapter’s presentation this case study is also divided into two sections - first dealing with the brief profile of the company and next describes the marketing control systems as they are applied in this corporation.

SECTION 1

NATIONAL FERTILISERS LTD - A PROFILE

1. GENERAL INFORMATION

For setting up of two fertiliser plants in Bhatinda (Punjab) and Panipat (Haryana) a new fertiliser company was formed in the name of National Fertilisers Ltd. on 23 August, 1974 as a government company under the Companies Act, 1956. Consequent upon the reorganisation of NFL and FCI, Nangal unit including its expansion project was taken over by NFL on 1st April, 1978. In 1984, the company started the implementation of gas based fertilisers Projects on HBJ Pipeline at Vijaipur, in Guna district of M.P. which was commissioned in 1987 and commercial production started in 1988. At present four units of production are in operation at Nangal, Bhatinda, Panipat and Vijaipur. Majority of the plants are in the
agriculturally developed area of Haryana and Punjab and it has highest installed capacity of Nitrogen production.

The company, to achieve the stated objective of manufacturing and marketing chemical fertilisers, chemicals and other by-products has identified the following micro objectives:

i) to achieve best level of production and economy in the use of inputs;

ii) to carry out R&D activities for saving use of energy, better recovery of saleable by-products, increasing plant availability;

iii) to manage the resources in most effective and efficient manner ensuring reasonable return on investment and generation of increasing internal resources;

iv) to provide the farmers high quality products in right time and in adequate quantity and at the same time maintaining fair business practices;

v) to intensify promotional efforts for increased use of fertilisers and to maximise distribution of company's products within the allocated area;

vi) to develop and maintain an organisational environment for encouraging individual and group initiative, innovation and productivity; and

vii) to achieve reasonable and consistent growth in the business of manufacturing and marketing of
fertilisers and to work out diversification/expansion schemes to increase profitability of the company.²

The present status of the company is as under:³

Registered Office : SCOPE Complex, Core III 7, Institutional Area, Lodhi Road, New Delhi
Marketing Division : 17, Community Centre, East of Kailash, New Delhi

Operating units and their capacities etc. (as on 31st March 1991).⁴

<table>
<thead>
<tr>
<th>Plants</th>
<th>Year of commissioning</th>
<th>Feedstock</th>
<th>Installed capacity in '000 tonnes of Nitrogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nangal (Punjab)</td>
<td>1961, 1978</td>
<td>Fuel oil and Naphtha</td>
<td>232.0</td>
</tr>
<tr>
<td>Bhatinda (Punjab)</td>
<td>1979</td>
<td>Fuel oil</td>
<td>235.0</td>
</tr>
<tr>
<td>Panipat (Haryana)</td>
<td>1979</td>
<td>Fuel oil</td>
<td>236.0</td>
</tr>
<tr>
<td>Vijaipur (MP)</td>
<td>1987</td>
<td>Associated Gas from Bombay High</td>
<td>334.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>1036.0</strong></td>
</tr>
</tbody>
</table>

Capital of the Company :

Authorised capital 50,00,000 equity shares of Rs.1,000 each  Rs.500.00 crores
Paid up capital 49,05,784 equity shares of Rs.1000 each  Rs.490.58 crores
Net Fixed Assets  Rs.592.00 crores
No. of employees⁵  6,856
2. PERFORMANCE

The indicators of performance selected are production and capacity utilization, sales revenue generation and profitability as well as dividend payments.

2.1 Production Performance

Table 6.1: Production Performance and capacity utilisation of NFL ('000 MT of Nitrogen)

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual installed capacity</th>
<th>Production</th>
<th>Capacity utilization (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>702.0</td>
<td>509.4</td>
<td>72.6</td>
</tr>
<tr>
<td>1986-87</td>
<td>702.0</td>
<td>551.2</td>
<td>78.5</td>
</tr>
<tr>
<td>1987-88</td>
<td>1036.0</td>
<td>657.3</td>
<td>63.4</td>
</tr>
<tr>
<td>1988-89</td>
<td>1036.0</td>
<td>865.9</td>
<td>83.6</td>
</tr>
<tr>
<td>1989-90</td>
<td>1036.0</td>
<td>1012.5</td>
<td>97.8</td>
</tr>
<tr>
<td>1990-91</td>
<td>1036.0</td>
<td>989.1</td>
<td>95.5</td>
</tr>
</tbody>
</table>

Source: Compiled and calculated from Table No.I-1.01 of Fertiliser Statistics of respective years, Fertiliser Association of India, New Delhi.

The Table 6.1 indicates that the company has never failed in utilising the production capacity of less than 70% except in the year 1987-88. The capacity utilisation is not less if we consider that the plant in Vijaipur was on trial run during that period. The production has started in July 1988. If we exclude the capacity of Vijaipur unit and the production during 1987-88, the
capacity utilisation in that year will go up to 87%. The average capacity utilisation then would be 86% during these years.

The Vijaipur plant has been achieving capacity utilisation upto 112% and 117% during 1989-90 and 1990-91 respectively and it was conferred Best Executed Project Award by the Government of India in 1989.

2.2 Sales Performance

Table 6.2: Sales Revenue generated by NFL (Rs. in crores)

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Sales</th>
<th>% change over the previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>425.05</td>
<td>-</td>
</tr>
<tr>
<td>1986-87</td>
<td>425.96</td>
<td>(negligible)</td>
</tr>
<tr>
<td>1987-88</td>
<td>389.41</td>
<td>(8.6)</td>
</tr>
<tr>
<td>1988-89</td>
<td>792.31</td>
<td>103.5</td>
</tr>
<tr>
<td>1989-90</td>
<td>769.86</td>
<td>(2.8)</td>
</tr>
<tr>
<td>1990-91</td>
<td>1096.57</td>
<td>42.4</td>
</tr>
</tbody>
</table>


The sales performance as given in the Table 6.2 highlights that there has been fluctuations during the period 1985-86 and 1990-91. There was almost no change in 1986-87 where as in 1987-88, the company witnessed a
decline in its sales revenue. This is attributed to the draught in the market where the company operates. But during 1988-89 the sales revenue picked up at a very high rate of change of more than 100%. Marginally it reduced in 1989-90 but again picked up in 1990-91.

In terms of volume of nitrogen, the company could sale 11.07 lakh MT in 1990-91 as against 10.49 lakh MT in the previous year. The inventory of nitrogen decreased from 3.04 lakh MT at the end of 1989-90 to 1.41 lakh MT at the end of 1990-91.\(^7\)

2.3 Financial Performance

The financial performance of the company has been quite satisfactory especially in terms of profitability. In the last decade, the company has never seen loss figure. It has always shown gross profit and net profit figures.\(^8\) Since 1984-85 continuously it is paying dividend. The contribution to the national exchequer has been to the tune of Rs 62.48 crores in 1990-91 as compared to Rs 58.58 crores in 1989-90.\(^9\)

The Table 6.3 gives the idea about profitability and dividend payment of the company in recent times.
Table 6.3: Profit performance and dividend payments by NFL (Rs. in crores)

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Profit/Loss</th>
<th>Dividend</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>37.13</td>
<td>3.26</td>
</tr>
<tr>
<td>1986-87</td>
<td>24.41</td>
<td>4.19</td>
</tr>
<tr>
<td>1987-88</td>
<td>44.22</td>
<td>9.81</td>
</tr>
<tr>
<td>1988-89</td>
<td>4.90</td>
<td>4.90</td>
</tr>
<tr>
<td>1989-90</td>
<td>11.60</td>
<td>9.81</td>
</tr>
<tr>
<td>1990-91</td>
<td>29.74</td>
<td>4.91</td>
</tr>
</tbody>
</table>


The profit performance during the period under study has been satisfactory except 1988-89. Though the market was draught free in that period but the short fall in profit was due to severe cut in the retention prices and non-reimbursement of 7.5% discount on sale of urea during Rabi 1988. The other cause was reduction in capital employed relating to the plants due to the assets having been depreciated fully during the 5th pricing period. The performance of the company during the period can be said to be satisfactory and it has grown in terms of Sales, production, capacity utilisation in the recent past.
3. Marketing Operations

3.1 The company sells its products of fertiliser category in the brand name of KISAN urea and KISAN khad. Kisan urea is having 46% nitrogen and Kisan khad is calcium Ammonium Nitrate (CAN) with 25% Nitrogen. The other product is non-pressure liquid fertiliser having 32% nitrogen and the brand name of this product is ANKUR. It is a white solution which is mixed and applied with micro nutrients, and insecticides etc. It has the benefit of application by spraying commonly used equipments.

The company is marketing industrial products also. Some important products are Ammonia, Liquid nitrogen, nitrogen gas, carbon slurry, heavy water, liquid oxygen, oxygen gas, sulphur, methanol and Ammonium nitrate etc. It also supplies bought out fertilisers including DAP.

3.2 The company follows the price fixed by the government for fertilisers where the industrial products are sold on prevailing market price. Though the company sells on cash but it allows credit to the distributors. The debtors to sale ratio has been 25% as on 31st March, 1991 as compared to 26.6% in the previous period.

3.3 The company has developed its organisation with a view to achieve the marketing objectives of evolving effective fertiliser marketing distribution system, educating the farmers regarding efficient and balanced use of fertilisers, creating and sustaining image of
organisation and carrying out intensive and extensive marketing activities to ensure growth of the market and the organisation.

The organisation for marketing its product is headed by GM (Marketing) who holds office in Marketing Division in Delhi. The subordinates are in the Zones, which the company has created for co-ordination of State/Regional Offices. There are three zones of Marketing at Chandigarh (Zone I), Gwalior (Zone II) and Lucknow (Zone III). Each zone is under the charge of Zonal Manager who is generally the Deputy GM (Marketing). The zones are divided into Regions which generally comprise state or part of a state.

Under the Regions there are Area Offices which control the territories which are generally administrative districts.

The Regional Offices are headed by Regional Manager/Marketing Manager whereas the Area Offices are manned by Area Managers. The salesperson who are working in the markets are District Field Officers/Development Officer. The organisation chart for marketing has been depicted briefly in Chart 6.1
Chart 6.1: Chart showing the Marketing Organisation of NFL.

3.4 The company markets its products mainly in the states of Haryana, Punjab, Himachal Pradesh, J&K, Chandigarh, Delhi, Madhya Pradesh, Rajasthan, Karnataka, Andhra Pradesh and Uttar Pradesh as per the ECA allocations made by the government. For the first time, the company extended its marketing operations to West Bengal and Maharashtra in 1990-91.
3.5 The company uses three types of agencies for distribution of its products.

(i) Institutional agencies like state co-operative societies, Agro Industrial Corporation and other state agencies.

(ii) Private dealers, and

(iii) Agro service centres maintained by the Company

The dealers are appointed through press advertisements and special preference is given to the persons belonging to S/C, S/T and Ex-servicemen categories.

The transportation of fertilisers take place with the help of railways and roadways. The destination are categorised into those cartered by rail, road and by both rail and road. The delivery takes place upto the block headquarters.

The consumption of fertiliser being seasonal, the warehousing facilities are required during off-seasons. The warehousing plans are made well in advance of the cropping period. The fertilisers are stocked at different places in Central warehousing corporation or State warehousing corporation godowns.

3.6 To popularise the balanced use of fertiliser and promotion of its own brand 'Kisan urea' and 'Kisan khad', the company has divided the total market into three categories namely, developed zone comprising Punjab,
Haryana, and parts of U.P. and Rajasthan; semi-developed zone including some parts of Rajasthan; and under developed zone consisting of M.P., H.P., J&K and hilly districts of U.P. As per the zones and their nature the programmes for promotion of fertilisers are developed.

For advertisement purposes, extensive programmes are carried out to build the image of the company and products. The media adopted by the company are T.V., radio, Newspapers and professional journals etc.

The sales promotion activities are undertaken in this company at a large scale and for that purpose, the programmes are divided into two categories - core programmes which include village adoption, identification of contact farmers, fertiliser demonstration, soil testing services; and supporting programmes comprising distribution of mini-kits, soil forestry, introduction of HYV, human and animal health care etc. The programmes are implemented on the basis of village adoption system under which two villages are adopted from each district for three years period. For semi and under-developed zones the programmes which are in addition to the above are, participation in exhibitions, puppet shows, rural sports meet, technical literature distribution, field days, crop seminars and kisan melas etc.

The company is engaged in the IIInd phase of INDO-EEC Fertiliser Education Project in 10 districts of M.P. which
was started in 1989 and will continue up to 1992-93. The EEC is funding these education projects for promoting improved package of agricultural practices including an efficient and balanced use of fertiliser through soil testing facilities, demonstration plots, holding field publicity activities etc. Rs 55 lakhs was sanctioned for the purpose in 1990-91.13

The company has spent Rs 6.57 lakhs on advertisement in 1990-91 which was Rs 6.24 lakhs in 1989-90. The expenditure on field demonstration, exhibition and soil testing was of Rs 3.61 lakhs in 1990-91 which was Rs 3.82 lakhs in 1989-90. It has registered a decline of 5.5% over previous year. But the sales promotion expenses other than those discussed above were of Rs 32.03 lakhs in 1990-91 which was 44% more than the previous year.14 This shows that the company is paying more attention in promoting fertiliser through sales promotion methods than the other media.

The discussion so far indicates that the company is running very efficiently in terms of production, generation of revenue, profit and payment of dividend. The organisation takes the objectives into account and as per the needs of the market the sales promotion programmes are designed and implemented. More stress is given on direct action
programmes for popularisation of fertilisers than advertising.

SECTION-2

CASE DISCUSSION

Marketing Control Systems as they are applied in National Fertilisers Ltd (NFL) are presented in this section. The four broader areas for which the discussion follows are the marketing control practices, salesforce control system, accounting technique in marketing control and the marketing key variables for marketing control. The pattern of presentation is similar to the previous chapter discussion.

I. MARKETING CONTROL PRACTICES

NFL utilises a wider base of marketing control system than the companies analysed so far. All the four types of controls are used in this organisation namely:

(1) Annual Plan Control;
(2) Profitability Control;
(3) Efficiency Control; and
(4) Strategic Control.

As the company is earning gross profit from the year of its reorganisation i.e. 1978-79 and could not attain net profit only in two years of its standing i.e. in 1979-80 and 1980-81, so the stress on profitability, utilisation of
resources, generation of increasing internal resources are always stressed. Periodically it had adopted the marketing audit also which is an indication that the company is more concerned with understanding the nature of its market, competitors, suppliers etc. For stock taking this type of job has been considered important in this organisation.

1. **ANNUAL PLAN CONTROL:**

   The company has adopted Annual Plan Control for the purpose of evaluation of performance and corrective action. In Annual Plan control, the basic premise is that the planning is done on annual basis, data are set for the same period and the evaluation is not necessarily done annually. Mid-term reviews are also undertaken for current period corrective actions.

   The three types of Annual Plan control adopted in the organisation are:

   1.1 **Sales Analysis**;
   1.2 **Market Share analysis**; and
   1.3 **Customers attitude Tracking**.

1.1 **Sales Analysis**

   For Sales Analysis, the standards of achievement are fixed on the basis of ECA allocation by the GM (Marketing) in the form of sales budget. The standards are broken down upto district level in terms of volume of fertilisers. These volumes are converted into monetary units by the
marketing department. They not only set sales figures but profit figures also.

Review of performance for control purposes is done on monthly through yearly basis, product-wise and the geographical segment-wise. Zonal analysis is not done as the executives consider that the zones are mainly for coordination purposes and the allocations are not done on zonal basis. Seasonal analysis is important because the allocations are mainly made as per seasons. Urea is the main product produced by the company. Calcium Ammonium Nitrate (CAN) constitute 13% of total installed capacity of the company, and the company analyses products separately.

The reporting system of actual performance is bottom up. The weekly reports submitted by the District Field Officers (Sales persons) form the basic document of control. These reports are sent to the Area Office from where they are sent to the Regional Office within one week of receipt of the report. On monthly basis these reports are available in the Corporate Marketing Division, New Delhi. The consolidated report alongwith the annexures contain information regarding sale of different products during the period of operation. The sales information are made available in terms of volume. The Accounts Section provides information about sales realisation and this
report is generally delayed due to late collection of resources and credit sales reporting.

The deviations are calculated from the Sales Plan and if there exists any deviation the causes are analysed further. These causes are generally available in the weekly report of District Field Officers which is provided in consolidated form at the corporate office. For monitoring of operation the three level meetings are always held.

i) The Regional offices hold monthly Sales Conferences which is attended by the Area Managers and District Field Officers of the region.

ii) Zonal meeting of Regional Managers are also held on monthly basis, where they appraise the condition of their markets.

iii) During seasons, GM (Marketing) calls the meeting of Regional and Zonal Managers but they are not regular meetings.

1.2 Market Share Analysis

On yearly basis, the company analyses its market share. It is taking help of only allocated market share. It does not go for overall or relative market share. The executives consider that allocation is done for all the companies operating in the market, so it is better to monitor with the help of allocated market share. The
previous period shares are taken as base for evaluation. The information sources are mainly Fertiliser Association of India and the Ministry of Chemicals and Fertilizers. If the share comes down in any period the causes are searched. Generally the areas of enquiry are transportation system, dealers efficiency, Field Officers working, availability of the product in time, damage of the product etc. The executives are of the opinion that it is a good indicator for relative performance analysis of our company with the other companies. The competitors and their strategies in marketing are also analysed. In future, the complete marketing network is analysed and geared for better effort and result. Specific corrective actions are taken based on the analysis of respective areas.

1.3 Customers Attitude Tracking

The company is putting efforts in analysing the attitude of customers and dealers. From time to time they go for qualitative information collection from the market. The District Field Officers are utilised for this purpose. They are required to report about the complaints of customers and dealers whenever they are brought to their notice. The company also encourages them to place their complaints and suggestions directly to the company. These suggestions are discussed at the Zonal and Divisional levels, and after thorough analysis in terms of financial and marketing implications, they are being considered for
further evaluation. The subsequent method of attitude tracking adopted is the customer survey which is generally comprehensive in nature but it is not a regular feature.

The executives consider that the complaint and suggestions given by the customers at their own are of short term nature and they do not take into account the financial implication to the company, so additional effort is required to substantiate those suggestions. Some complaints like loss of weight, broken prills of fertiliser, or dealers apathy in helping the customers etc. require immediate action.

2. PROFITABILITY CONTROL:

The company executives recognise the fact that sale is not the only base for evaluation and control of marketing efforts. The company has stated its objectives to generate resources internally for which profit earning is important.

They also make this point clear that addition or deletion of product, change of territories or channel is not possible. But it does not mean that their profitability should not be analysed. This analysis will help in monitoring the marketing network to greater profit consciousness. The comprehensive method of profitability analysis is used by this company. Separately, products profitability is analysed on seasonal and annual basis.
The geographical segment analysis is adopted from Regional upto Area office level. They are also analysed on seasonal and yearly basis.

The company takes help of Accounts Section and Marketing Research Section for this purpose. The marketing executive in the organisation claimed that there is judicious allocation of costs for regions, product and seasons based on some objective and subjective criteria, but the existence of some arbitrariness in allocation of costs can not be ruled out. For example, field demonstration cost, is allocated to that region, season and product which has been used for demonstration. But this is not the case in allocation of sales administration expenses and advertising expenses where some arbitrary base is taken for allocation for product cost. The seasonal, product and Regional profitability are analysed to monitor the efforts in those areas. The base for evaluation is the previous year profitability.

Based on this analysis, the company tries to reduce costs or strive to increase revenue. For cost reduction, the measures adopted are in future period planning. Sometimes diversion of resources from one activity to the other is adopted generally in sales promotion drives in the current period. The marketing network is geared for generation of more sales in the region to off set the costs enhancement.
3. EFFICIENCY CONTROL

The broader areas for which efficiency measures are adopted are Promotion efficiency, Distribution efficiency, and Personal selling efficiency in this organisation. Personal selling efficiency will be discussed in the next part of the case.

3.1.1 Advertising Efficiency

The company measures the efficiency of advertisements for the campaigns launched. They are analysed for all the media through which the messages have been placed. The analysis is done by the marketing research section of the Division. They do not use advertising agency for this purpose. The method adopted for evaluation is the survey of customer when the programme is going on. The executives consider that it is simply the awareness analysis and not a comprehensive evaluation of the advertisements. The evaluation after the programme is more important because the impact of advertisements is carried over to the next cropping season and still further. The limited market are analysed for evaluation. Three types of corrective actions are there in this case (i) If analysis shows that one media is more effective than the other the company reduces the cost on that media even when the programme continues and tries to reallocate resources to other media.
(ii) Secondly, if the programme or the media has not been effective then in future period the change of programme or media is done. The district field officers help in evaluation of the programmes of advertisement.

(iii) Enhancement or curtailment of advertising expenditure in future is made possible on the basis of evaluation.

3.1.2 Sales Promotion Efficiency

In order to meet the sales target of the company various sales promotion and publicity measures are adopted. For this purpose, the company has divided the total market into three types of zones; developed semi-developed and under developed. Promotion programmes are adopted for these zones differently based on geographical, climatic and socio-economic conditions. The programmes continue throughout the year. The field staff evaluates the efficiency of these programmes on seasonal basis. Awareness about the product and the brand is the basic factor for evaluation. The weekly report provides these informations. If the programmes have not satisfied the objectives, then they are discontinued or the resources are diverted to the other programmes, region or season. This diversion is possible because generally these programmes do not require fixed expenses.
3.2 Distribution Efficiency

The efficient distribution system is the key to success of marketing operation and the company utilises many types of channels and agencies in the distribution of fertilisers.

3.2.1 Channel Efficiency

The different types of channels are adopted for fertiliser distribution - institutional agencies and private outlets as well as agro service centres.

They are evaluated on the basis of lifting of fertilisers through different channels. The analysis is regular and continues on quarterly, seasonal and yearly basis. The data source is the regional office. Its analysis is only to have the idea about the efficiency of one channel over the other. They are compared with the previous data so that the channels should be properly monitored. The individual area and the different channels operating in that area are analysed for corrective action.

3.2.2 Transportation Efficiency

Fertilisers are transported from factory to the farm with the help of rail and road transports. The efficiency of transportation is evaluated on monthly, quarterly and seasonal basis. The data are made available from the factory offices on monthly basis. Evaluation is made on the basis of supply plan of the season. It is easier to monitor and control the road transport operation than
railways because if there is stoppage, damage or theft of the material or they are not in a position to make the product available in the market during the cropping season, the payment is stopped or future permit is not granted. While evaluating transportation efficiency the factors beyond the control of transport operators like strikes of drivers, road blockade, or general strikes are also considered.

4. STRATEGIC CONTROL

The company had adopted marketing audit about five years ago. This audit was comprehensive in nature only for one area i.e. task environment. The area covered for audit have been the markets, customers, competitors, dealers and facilitating organisations like warehousing, transporters, advertising agencies etc. For marketing environment, the executives are of the opinion that it is difficult for one company to evaluate the environment and it will not be cost effective as the decisions regarding product and market selection are outside of the company's purview. Fertiliser Association of India, Planning Commission and Ministry of Agriculture are involved in this analysis and their data are more reliable than whatever will be collected by a company.

The other components of the audit have not been touched like marketing systems audit and marketing
organisations audit. It gives an idea that the concept of strategic control has been adopted by the company but its scope is limited in terms of area of evaluation and corrective action. The auditing process have not been repeated after that.

II. SALESFORCE CONTROL SYSTEM:

The company employs salesforce with different designation in the market. Generally they are called as Field Officers or District Field Officers. But the other designations are also there who are performing similar type of duties in the market like Field Assistants or Development Officers.

The main duties assigned to them are summarized below:

i) To educate the farmers in balanced use of fertilisers.

ii) To help the dealers in promoting and distribution of fertilisers.

iii) To intensify promotional efforts to maximise distribution of company's product.

iv) To collect money from the dealers and deposit them in the bank for onward transmission to the corporate office.

v) To help and monitor the agencies involved in distribution of fertilisers; and
vi) To report performance of sales and market condition regularly to the next higher level. The control responsibility of salesforce lies on the shoulder of Area Manager and Regional Manager.

1. TERRITORIES

The District Field Officers are assigned territories. These territories are either one administrative district or a combination of districts assigned to one person generally. The market potential is not the base of assignment but the geographical area.

The methods of control applicable in this company with varying degree of emphasis are:

2. Quota achievement
3. Sales Budgeting
4. Efficiency analysis, and
5. Behaviour based evaluation

2. SALES QUOTA:

Product-wise sales volume quotas are set by the company for individual Field Officers for both the seasons, Rabi and Kharif separately, which is broken down for each month. The evaluation of achievement of Field Officers is done by the Area Manager, who receives weekly report from Field Officers. The performance is evaluated with the help of Sales volume quota. If the field officers are not in a position to achieve their quota then the factors
responsible in this regards are analysed. The uncontrollable factors like draught, flood, bad economic condition etc. are also kept in mind while evaluating their performance. Monitoring is done with the help of meetings with the Regional Manager once a month during cropping season. The Area Managers also keep close eye on their performance. Both Area managers and Regional Managers try to bring the performance of Field Officers on line. Continuous failure of achievement of the quota generally leads to warnings and ultimately transfer posting to some other district. No incentive or promotion for better performance is granted.

The quotas are also for individual dealers which are monitored by the Field Officers continuously. The company does not set activity quota or combination quota for evaluating the Field officers

3. SALES BUDGETS

The Sales budgets are prepared by the Company for controlling the field officers. The two components of the budget are sales revenue and the expenses to be incurred on personal selling. The quota or sales revenue is fixed by higher level for products separately where the expenses are firstly planned from bottom to the higher level. Continuous monitoring is done for the expenses and revenue. As some expenses are flexible in nature like travelling allowances, so the Area Manager and Regional Managers take
care that they should not be spent more than the budget. The budgeted expenses are neither linked with budgeted sales, gross profit nor with net profit.

4. SALESFORCE EFFICIENCY

4.1 Sales Calls:

Field officers efficiency is not evaluated with the help of calls in this organisation. The duties assigned to the Field Officers indicate that they have to educate the farmers and monitor the dealers which requires making calls on them. But the company has not adopted the method to monitor the Field Officers with the help of calls.

4.2 Salesforce expense to Sales

The efficiency analysis with the help of personal selling expenses as input and resultant sale of the territory as output, the Area Manager evaluates the Field Officers on seasonal basis. This ratio is used for comparison with the previous year ratio in the same cropping season. This analysis is used for current year corrective action if the ratio shows an upward behaviour than the previous year. The causes are analysed and mainly the variable side of the personal selling expenses are monitored.

4.3 Responsibilities Evaluation

Other than Sales revenue generation, there are some more responsibilities assigned to the Field Officers like
promotion of fertilisers, collection of sales revenue, reporting, warehouse monitoring and dealer development etc. which are requiring evaluation for corrective actions.

4.3.1 Promotion Efficiency

Promotion programmes and the role of Field Officer in those programmes are evaluated on subjective basis of their active participation in organising those programmes.

4.3.2 Credit Collection

The credit collection is the responsibility of Field Officers and it is evaluated in terms of total sales, credit sales and collections made from the district during the period. The Area Manager monitors the effort of Field Officer mainly when the credit sales increases without a corresponding increase in collection. This is a seasonal analysis and mid-term reviews are also undertaken for early warning to Field Officers.

4.3.3 Reporting

The Field Officers have to send weekly market report to the Area Manager during cropping seasons. These reports are required to be comprehensive in nature and regular in periodicity, as they are the basis for corporate reporting and if the Area Managers find that the reporting has not been done in comprehensive manner, he warns the Field Officer in this regard.
4.3.4 Dealer development

Dealer development is also the responsibility of Field Officers for which they have to organise development programmes from time to time. They are being trained in selling fertilisers, collection of sales proceeds, utilisation of godown space etc. The Field Officers are evaluated by Area Managers on the basis of number of programmes organised.

4.3.5 Warehouse monitoring

The Field Officers have to monitor the company owned warehouses or hired warehouses. They have to ensure that fertilisers are available in the warehouses as per the requirements of the market and the warehouse space is fully utilised. For monitoring, they have to visit these warehouses on regular basis. The evaluation of Field Officers is made on the basis of number of visits to the warehouses in a month. The reports sent by them contain this information also.

All these responsibility areas are evaluated on some basis and if the Field Officers are not found to be performing as per requirements, the early warning is given. The next step is the request by the Area Manager to transfer the Field Officer. But the transfer is generally resisted. Retrenchment decisions are not possible in present condition.
4. BEHAVIOUR BASED EVALUATION

The company generally does not evaluate the Field Officers with the help of qualitative parameters like co-operativeness, resourcefulness, public relations etc. But sometimes with the help of customers and dealers complaints and suggestions they are evaluated.

III ACCOUNTING TECHNIQUES IN MARKETING CONTROL

There are some accounting techniques which are applied by the Marketing Division for input and output control. Some of these techniques are primary for control where the others are considered as supplementary for the purpose.

The techniques applied by the Marketing Division are:

1. Ratio Analysis
2. Budgeting
3. Variance analysis and
4. Responsibility Centre Accounting

1. RATIO ANALYSIS

For output control, the two broader categories of ratios applied are:

1.1 Profitability ratio, and
1.2 Turnover ratio

1.1 Profitability Ratio

The profitability ratio is of much more importance in this organisation as the objective of the company is to earn profit and generate resources internally. Both gross
and net profitability are analysed with the help of Sales.

1.1.1 Gross Profit to Sales Ratio, and

1.1.2 Net Profit to Sales Ratio

Mainly two types of fertilisers are sold, urea and CAN so the product profitability is also analysed. But as it has been discussed earlier that allocation of costs is a major problem as some arbitrariness and subjective judgement is involved. The base for comparison is the ratio in the same season in previous year. The executives consider that mid-year review and product profitability analysis help in determining the current year corrective action and direction for future.

1.2 Turnover Ratio

The Turnover ratios calculated by the Marketing Division are:

1.2.1 Inventory Turnover ratio

1.2.2 Average collection period; and

1.2.3 Debtors to Sales ratio

The other ratios of importance to the organisation as a whole like liquidity leverage or valuation ratios are not used by the marketing division for control.

1.2.1 The inventory turnover ratio is utilised by the Marketing Division to analyse the efficiency of inventory management. There is wider use of this ratio in Area and Regional offices for different seasons. The base of
comparison is the previous year ratio of the company.

1.2.2 To analyse the efficiency of collection of debts, the Division calculates average collection period on annual basis as well as on seasonal Regional and Area office basis and they are compared with the previous year debt collection period.

1.2.3 The Debtor to Sales ratio is calculated by the Marketing Division on seasonal and yearly basis for Regional and Area Offices. The basic purpose of this exercise is to analyse the credit sales as a percentage of total sales.

The company considers that to achieve the goals of profitability, the cost control is important. It exercises cost control techniques of different types in all the divisions. In marketing division two types of techniques are utilised - Ratio analysis and budgeting (to be discussed later). The broader areas in which ratios are used for cost control are:

1.3 Promotion cost to Sales ratio
1.4 Distribution cost to Sales ratio
1.5 Personal selling expenses to Sales ratio
1.6 Sales administration to Sales ratio; and
1.7 Marketing Research to Sales ratio
1.3 Promotion Expense to Sales

The promotion cost to sales ratio is calculated to have the idea as to how much of resources have been utilised on promotion to generate sales. There are two major ratios in this category.

(i) Advertising expense to Sales ratio; and
(ii) Sales promotion expense to Sales ratio

1.3.1 Advertising Expense to Sales ratio

On yearly basis, this ratio is calculated because the executives consider that advertising has impact on sales but it is not proper to consider that its impact can be viewed in its current period sales. This ratio is compared with the previous period ratio. For in-depth analysis of media or campaign separately, the ratio of these two is calculated in relation to the total advertising expenses. The utility of the ratio is limited because the costs are generally controlled with the help of annual budget. These ratios are for future planning and supplement when there is budget overrun.

1.3.2 Sales Promotion Expense to Sales ratio

Sales promotion cost to Sales analysis is undertaken on seasonal and yearly basis. The executives consider that the impact of sales promotion methods on sales are immediate so the sales of the next cropping seasons are taken for analysis. These ratios are the valuable guide
for evaluation with the ratio of previous year. Indepth analysis of different programmes are also done with the help of ratio of particular sales promotion programme expenses to the total sales promotion expenses or sales from the area where the programme has been conducted. The company analyses those expenses on regular basis.

1.4 Distribution Cost to Sales ratio

For control of distribution cost, the two types of ratios are calculated in this company.

1.4.1 Distribution cost to total marketing cost ratio

1.4.2 Distribution cost to sales ratio

1.4.1 The components of distribution expenses are packaging, transportation, warehousing etc. The costs incurred on them are analysed in this company in respect of total marketing cost. The industry ratios are available for the purpose of comparison. The company evaluates the costs season-wise.

1.4.2 The other ratio for analysis is the distribution cost to sales ratio. This is also analysed by product on annual basis. The previous year ratios are the guide for evaluation and is used for future period budgeting.

1.5 Personal Selling Expenses to Sales Ratio

Personal selling expenses to sales ratio is calculated on yearly basis and is compared with the previous year ratio and it is applied as a guide for future period planning.
The indepth analysis of salaries, travelling allowances and other expenses are not undertaken by the company as the executives consider that the budget and variance analysis are better guides for control in current period.

1.6 Sales Administration to Sales Ratio

Sales administration cost to sales ratio is calculated on yearly basis. Zonal, Regional, and Area Office administration costs are analysed with the Zonal Regional and Area Office sales, respectively. They are evaluated with the previous period ratio. Some executives criticised this ratio as it is not giving the true picture of evaluation because the sales are made by consolidated effort of many agencies and not by sales administration alone.

1.7 Marketing Research to Sales

The company also uses the marketing research expense to sales ratio on yearly basis and compares with the previous year ratio. The use of this ratio is for future planning.

2. BUDGETING

The Company uses budgets on a wider scale for output and input control.

2.1 Sales Budget: The budgets for marketing control purposes are being used in this company on a wider scale.
For output control Sales Budgets are prepared in terms of volume of product and the rupee value for the Rabi and Kharif seasons. These budgets are further detailed for Zones, Regions and Areas.

The reporting of budget performance is from the field officer up to the Marketing Division which receives it on monthly basis so that before holding the meeting the consolidated report is available. The use of this budget is at all levels from corporate to Field Officers. It is an additional support for sales analysis.

A good number of budgets are prepared for controlling marketing input costs like:

2.2 Promotion Budget
2.3 Distribution Budget
2.4 Personal Selling Expense Budget
2.5 Sales Administration Budget; and
2.6 Marketing Research Budget

2.2 Promotion Budget

Mainly two types of budgets are prepared for promotion expense control.

2.2.1 Advertising Budget: The budget is prepared for one year period. The important components of budget are media expenses, agency charges etc. The mid-year review of the expenses are positively done so that the budget over run should not be there. If additional amount is required, proper justification is provided. The variance from budget
is calculated for control purposes. The variances are supported by the advertising to sales ratio.

2.2.2 Sales Promotion Budget

Promotion and Publicity budgets are also prepared on yearly basis. The different activities on which the money will be spent are included in the budget. The budgets are broken down for Rabi and Kharif seasons on Regional and Area basis. These smaller break up is in recognition of the fact that the reallocation of resources on the basis of programmes, season and geographical segment is possible.

2.3 Distribution Budget

The distribution expenses include the expenses on transportation, packaging, handling etc. for which seasonal, product-wise and yearly budgets are prepared in this company. The expenses are analysed monthly, seasonally and yearly. Railways transport lift major amount of fertilisers and consumes more freight charges, than the road transport. Budget overrun is common in case of rail transport. Such type of changes are generally not common in case of road transport.

2.4 Personal Selling Expense Budget

Personal selling budgets are prepared for a year. The components of the budget are field officers salaries, travelling expenses and other allowances. Monthly review of personal selling expenses are done with the help of the
budget. Personal selling budgets are further broken down for Regional and Area Offices.

2.5 Sales Administration Budget

Sales Administration Budgets are prepared for one year period. The break up is on Regional and Area office basis. Quarterly review is made for monitoring and controlling the expenses involved in it.

2.6 Marketing Research Budget

Marketing Research budgets are prepared for one year period. The actual expenses are reviewed on half yearly basis.

3. VARIANCE ANALYSIS

The company uses variance analysis widely. In analysis of Sales with the help of budgets the company calculates volume variance for the Company, Region and Area Offices on Seasonal basis. It does not go for price variance because the price of fertilisers over the years remained unchanged. Ultimately, mix variance is also not calculated. But from the year 1991-92, the price change has been incorporated so the variance analysis will be of use in future. For input control, the variance of actual cost over the budgeted cost is being calculated as favourable and adverse for current period control and early warning. The concept of performance budgeting has not been applied by the company for controlling marketing expenses.
Seasonal and Regional or Area Office variances are calculated for limited no. of expenses.

4. RESPONSIBILITY CENTRE

The concept of responsibility centre has been applied in controlling marketing affairs of the company. Marketing Division has been considered as Revenue centre and they are being evaluated in terms of sales revenue generated by the company during the period. Zonal, Regional and Area Offices have not been considered as the revenue centre for evaluation purposes.

IV. MARKETING KEY VARIABLE

The executives in the Marketing Division are clear about their organisational goals. The objectives of the company which are stated in their Memorandum of Association clearly states that the company will manage the affairs to ensure reasonable rate of return on investment and generation of internal resources. It has further specified that it will intensify promotional efforts for increased use of fertilisers among the farmers to achieve consistent growth in business. These broader long term objectives are keeping the executives on their toes for profitability and growth of the organisation.

Based on the above objectives, the Marketing Division considers the most sensitive marketing key variable to their objective "Sales and Cost Control." The executives
consider that our leadership in the served marked should be established.

The other key variables for control in the marketing organisation in order of priority are:

(i) Customer awareness about fertiliser
(ii) Quality and weight
(iii) Ensured supply during cropping seasons
(iv) Customer satisfaction, and
(v) Proper packaging and transportation.
REFERENCES


3. Ibid., p.4.

4. Fertilizer Association of India, New Delhi, Fertilizer Statistics, 1990-91, Table 1.01.


7. Ibid., p.18.

8. Based on PE Survey data of different volumes.


CHAPTER VII

CASE STUDY OF
PYRITES, PHOSPHATES AND CHEMICALS LTD. (PPCL)

PPCL is a company producing fertilisers for the last few years though it is engaged in mining for fertilisers since inception in 1960. The company is also a profit making company. Projects of the company are many though it is a small company as compared to rest of the organisations manufacturing and marketing fertilisers. The development, performance and marketing operations have been discussed in brief in Section 1 and the marketing control systems in the section 2 of this chapter.

SECTION 1

PYRITES, PHOSPHATES AND CHEMICALS LTD: A PROFILE

1. GENERAL INFORMATIONS

PPCL was established on 27th March, 1960 under the Companies Act, 1956 as a public sector unit with the initial objective of exploration and mining of pyrites as an indigenous and alternative source of sulphur which was imported at that time. The pyrite was mined in Amjhore, Dist. Rohtas in Bihar. This was supplied to FCI, Sindri for manufacture of sulphuric acid. The other uses of pyrites are the reclamation of 'usar' and alkaline soil.

The another mining activity is of rock phosphate and sulphur, used for the manufacture of water soluble phosphatic fertilisers.
From November 1982, FCI discontinued the use of pyrites in its Sindri plant. In view of the situation the company proposed the government for setting up of its own 250 TPD sulphuric acid plant and phosphatic fertiliser project (33,000 tonnes of \( P_2O_5 \) per annum in the form of SSP) at Amjhore.\(^1\) The proposal was approved by the government in 1986. The SSP plant being ready in advance was commissioned in Nov. 1988, sulphuric acid plant in Nov. 1989 and the commercial production commenced from 1st Jan. 1990.\(^2\)

Units of the Company: Presently there are two units of the company which are operating and the third unit is yet to be started because the proposal is with the government for finalisation.

Amjhore Unit: Amjhore has the largest pyrites deposit land in the country spread over an area of about 125 sq. kms. in district Rohtas, (Bihar). It is estimated to have 275 million tonnes equivalent of sulphur in the form of iron pyrites which makes it one of the largest deposits in the world. This unit initiated the use of agriculture grade pyrites having 22% sulphur for alkali soil reclamation.\(^3\)

It also produces phosphatic fertiliser based on sulphuric acid being manufactured from iron pyrites.\(^4\)
Dehradun Unit:

The company is mining rock phosphate from the Himalayan Range of Mussorie where the deposits of 45 million tonnes of sedimentary rock phosphate is scattered on an area of 120 kms. The mining operation is undertaken at Maldeota and Durmala mines near Dehradun. The product is marketed as 'Mussorie Phos' as an economical phosphatic fertilisers and saves valuable foreign exchange.

Saladipura Unit

Saladipura, Distt. Sikkar (Rajasthan) has vast deposits of pyrites containing 120 million tonnes of medium grade pyrites which is equivalent to 25 million tonnes of sulphur.

For an integrated Saladipura Project for exploiting pyrite deposits for sulphuric acid production for utilising them in production of Single Super Phosphate (SSP), the company has submitted proposal to the government of India to sanction 600 TPD, SSP plant and 240 TPD pyrite based sulphuric acid plant.

The present status of the company is as under:

Registered Office : Dehri-On-Sone, Distt. Rohtas (Bihar)
Corporate Office : Hemkunt Tower, Nehru Place, New Delhi
Marketing Division : Hemkunt Tower, Nehru Place, New Delhi
Units:

<table>
<thead>
<tr>
<th>Year of commissioning</th>
<th>Annual Installed capacity ('000 MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amjhore (Bihar) 1988</td>
<td>42.2 (of P$_2$O$_5$)</td>
</tr>
<tr>
<td>Dehradun (UP)</td>
<td>120.0 Rock Phosphate</td>
</tr>
<tr>
<td>Saladipura (Rajasthan)</td>
<td>Govt. Approval awaited</td>
</tr>
</tbody>
</table>

Capital:

- Authorised capital 8,00,000 equity shares of Rs.1000 each: Rs.80.00 crores
- Paid up capital 7,04,703 equity shares of Rs.1000 each: Rs.70.47 crores
- Net Fixed Assets: Rs.70.01 crores
- Number of employees as on 31.3.91: 2,703

2. PERFORMANCES: As the company is new in production of fertiliser, the performance is analysed for limited number of indicators and for few years.

2.1 Production Performance

The Amjhore unit has the production of 'Sone Ganga' SSP, Sulphuric acid and Agricultural grade Pyrites (A.G. Pyrites) and the Dehradun Unit produces 'Mussorie Phos'. The P$_2$O$_5$ production capacity at Amjhore is of 42.2 thousand M.T.
Table 7.1 (a): Production Performance of \( P_2O_5 \) and capacity utilisation of Amjore Unit

<table>
<thead>
<tr>
<th>Year</th>
<th>Installed capacity in ( P_2O_5 )</th>
<th>Production</th>
<th>% capacity utilisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988-89</td>
<td>42.2</td>
<td>2.2</td>
<td>5.2%</td>
</tr>
<tr>
<td>1989-90</td>
<td>42.2</td>
<td>9.8</td>
<td>23.2%</td>
</tr>
<tr>
<td>1990-91</td>
<td>42.2</td>
<td>20.8</td>
<td>49.3%</td>
</tr>
</tbody>
</table>

Source: Fertiliser Statistics of respective years, Table No.I-1.01, Fertiliser Association of India, New Delhi.

The 'Mussoorie Phos' production, for which the capacity is 120 thousand MT of rock phosphate, has been shown in Table 7.1(b).

Table 7.1 (b): Production Performance of Rock Phosphate and Capacity Utilisation of Dehradun Unit

<table>
<thead>
<tr>
<th>Year</th>
<th>Installed capacity (( P_2O_5 ))</th>
<th>Production</th>
<th>% capacity utilisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988-89</td>
<td>120</td>
<td>132</td>
<td>110</td>
</tr>
<tr>
<td>1989-90</td>
<td>120</td>
<td>133</td>
<td>111</td>
</tr>
<tr>
<td>1990-91</td>
<td>120</td>
<td>127</td>
<td>105</td>
</tr>
</tbody>
</table>

Source: Annual Reports, 1989-90, and 1990-91, PPCL, New Delhi.
In terms of phosphatic fertiliser production at Amjhore unit, the capacity utilisation is very low but it is picking up over the years. Non-availability of rock phosphate, inadequate power supply, and operational problems in the plant are some of the causes of non-attainment of rated capacity of the plant.  

The position of Mussoorie Phos production has been encouraging but it has declined in 1990-91 from its previous year performance.

2.2 Sales Performance

The sales performance for the last three years have been considered and it shows an increasing trend over its previous year and their changes are of higher order as shown in Table 7.2.

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales Revenue</th>
<th>Change over previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988-89</td>
<td>19.69</td>
<td>-</td>
</tr>
<tr>
<td>1989-90</td>
<td>92.72</td>
<td>370%</td>
</tr>
<tr>
<td>1990-91</td>
<td>258.00</td>
<td>178%</td>
</tr>
</tbody>
</table>


The sales of SSP was 1.15 lakh tonnes in 1990-91 which was 98% higher from the previous year. The sale of
Mussoorie Phos was of 1.26 lakh tonnes in 1990-91 registering a decline of 8% over previous year sale. The sale of pooled fertiliser in 1990-91 also increased by 256% over 1989-90 sale.\(^9\)

2.3 Financial Performance

The profitability of the company has mostly been positive and in the last decade it has shown profit throughout, except during 1989-90 when it suffered losses. The Table 7.3 indicates its profitability over the year.

Table 7.3: Profits Earned by PCCL

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Profit (Rs. in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>0.91</td>
</tr>
<tr>
<td>1986-87</td>
<td>0.46</td>
</tr>
<tr>
<td>1987-88</td>
<td>0.68</td>
</tr>
<tr>
<td>1988-89</td>
<td>1.21</td>
</tr>
<tr>
<td>1989-90</td>
<td>(1.24)</td>
</tr>
<tr>
<td>1990-91</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Source: Annual Report 1990-91, Department of Fertiliser, Ministry of Chemicals and Fertilisers, Govt. of India, New Delhi.

3. Marketing Operations

3.1 The company markets its product in two brand names - 'Sone ganga' khad and 'Mussoorie Phos'. The product profile includes SSP, Mussoorie Phos, A.G. Pyrites, Urea and DAP in fertilisers category and Sulphuric acid,
Acid grade pyrites as well as rock phosphate as intermediate products for fertiliser production.\textsuperscript{10}

It has entered into the trade of handling and distribution of imported DAP and lifts it from 10 ports of the country.\textsuperscript{11}

3.2 The SSP and other fertilisers are sold as per the price fixed by the government where the rest are outside of the price control. The sale is basically made on cash but company allows credit to its distributors. The debtors to sales ratio as on 31st March, 1991 has been 9.03\% which was 9.02\% as on 31st March, 1990. On the same data in 1989, the ratio was 24.7\%.\textsuperscript{12} Though debts have been created during this period but it has decreased drastically in last two years.

3.3 The marketing of products are done in the allocated territories but the industrial products are sold throughout the country. The Marketing Division is headed by GM (Marketing). The two zones have been created - North and South and the Addl. GM (Marketing) holds office there. The states are headed by Area Manager (Marketing). In some cases the combination of states are under the supervision of Area Managers. Under the Area Managers, the Asstt. managers work who supervise and control the Sales Officers and Field Representative. (The organisation has got the designation of Area Managers who are generally the Regional managers in other organisations. In place of Area Managers
in other organisations here the designation of Asstt. Managers have been adopted).

A brief organisation chart is depicted in Chart 7.1

Chairman-cum-Managing Director

G.M. (Marketing)

Addl. G.M. (Marketing) Manager Addl. G.M. (Marketing) (North zone) (Agriculture Sciences) (South Zone)

Area Manager Area Manager

Asstt. Managers Asstt. Manager

Sales Officers Sales Officers Sales Officers

Chart 7.1: Chart showing Marketing Organisation of PPCL

3.4 The different products are marketed in different areas of the country.

Agricultural grade pyrites are used for reclamation of alkali (usar) soil. The Sulphur deficiency has been reported to exist in 90 districts in different parts of the
country. Sulphur responses have been observed for 30 crops some of which are oilseeds, pulses, cereals, millets etc.

Mussoorie Phos has inherent agronomical values. It has got good reputation among farmers of every regions including Kerala, Maharashtra, A.P., Karnataka, T.N., Bihar, U.P., West Bengal, Assam and Orissa etc. The crops for which Mussoorie Phos are more effective are paddy, maize, wheat, pulses, potato, sugarcane, oilseeds, tobacco, grapes, lichi, apple etc. and plantation crops like tea, coffee, rubber, cardamom and coconut etc.

'Sone ganga' khad is soluble single super phosphate and is more effective for oilseeds, pulses, cereals, millets and tubers etc. The company is successfully marketing this product in Bihar, U.P., West Bengal, Assam, M.P. and other North Eastern States.

3.5 The distribution of fertilisers either from the port or plant is made by road and rail transport. The channel of distribution is institutional and private traders both. The company maintains godowns of Central Warehousing Corporation and State Warehousing Corporation in different states for stocking fertilisers. The consumption of these products take place during limited periods. Generally, before cultivation some products are used where the others are applied during cropping period.
3.6 For promotion of Sone Ganga and Mussoorie Phos, the Company undertakes many types of programmes. Print as well as audio-visual media are used for this purpose.

The sales promotion efforts are made by the company in the form of field demonstration, kisan mela, village adoption, mini-kit distribution, wall painting, soil testing and planter's conference etc.

Three promotional projects are in hand with PPCL.

Indo-EEC Fertiliser Education Project is fully funded by the EEC to promote balanced use of fertilisers. The project is under implementation since 1988 covering 96 villages in 3 districts of UP and 2 districts of Bihar.\(^\text{14}\)

The second project, Wasteland Afforestation Programme is funded by Australian International Development Agency (AIDA) for reclamation and rehabilitation of degraded and abandoned lands for better ecological balance and environment protection. The project was implemented in 1989 in the States of Bihar, U.P., Rajasthan and Delhi covering 75 hectares of area. The provision for Rs 1 lakh was made during 1990-91.\(^\text{15}\)

The third project is also to be financed by EEC which they have gained for Alkaline Land Reclamation and Development Programme with Modern Agricultural Practices (LANDMAP). The expected total expense is of Rs 77 crores out of which Rs 7 crores will come from the government of India contribution. The objective of the project is to
increase the productivity of low yielding crops. The project will cover 25,000 hectare of land spread over 240 villages in six districts in U.P. and Bihar. The project will continue for a period of 7 years.\textsuperscript{16}

The expenses on Sales promotion and publicity have been to the tune of Rs 14.85 lakhs during 1990-91 which was Rs 27.74 lakhs in previous year. It has decreased by 46%. The expenditure on advertisement has increased upto Rs 11.23 lakhs in 1990-91 from Rs 9.81 lakhs in 1989-90. The increase is upto 14.5% over its previous year.\textsuperscript{17}

The company though existing since a long time has entered into the manufacture and marketing of fertilisers recently. Considering the fact, the progress of the company is satisfactory. The profitability except one year has always been positive. The promotional programmes are many and the company is engaged in taking up special projects for that purpose.

SECTION 2

CASE DISCUSSION

This Section deals with the marketing control applied in PPCL. The pattern of presentation is as per the previous chapters.

I MARKETING CONTROL PRACTICES

PPCL has adopted three types of control for its marketing activities namely, Annual Plan Control,
Profitability Control and Efficiency Control. It has not gone for strategic control.

1. ANNUAL PLAN CONTROL

1. The Annual Plan control applied in this organisation are of three types:

   1.1 Sales Analysis;
   1.2 Market Share analysis; and
   1.4 Customers attitude tracking.

1.1 Sales Analysis

The GM (Marketing) sets the standard for annual sales based on ECA allocation for North and South zones for the range of products and they are further separated for the States and districts. These standards are for the cropping seasons. The products are of different nature in terms of plant nutrient so the dominance of one product or brand is not there. As per the installed capacity 'Sone Ganga' (SSP) constitutes 38% and Mossourie Phos 34% and Pyrites (22%) is 28%. It leads to Sales analysis of product in detail.

The territories are manned by Sales Officers/ Field Representatives who report to the Asstt. Manager (Marketing) on weekly basis regarding performance in their markets. The Asstt. managers send these reports to Area Managers who after consolidation of informations send them to the Addl. GM (Marketing) at the Zone level. Ultimately, the report goes to the GM (Marketing) at the Marketing Division. The sales revenue informations are taken from
Finance Deptt. The meetings are held at Divisional level generally in alternative months which is attended by the Zonal Managers (Addl. GM) or Senior Manager and Manager (Agricultural Sciences). Sometimes the Area Managers (North and East as well as South and West) zones are also required to be present in the meetings. Zonal Managers hold monthly meetings for their zones regularly.

1.2 Market Share Analysis

Market share of the company is analysed on yearly basis for the allocated markets as the executives in the organisation said that when we are operating in a limited market allocated by the government so the analysis is relevant for that market only. Zonal shares are also considered and the data are available with the Ministry of Agriculture and Fertiliser Association of India, New Delhi.

As the company has started marketing of SSP since 1988-89, the market share has increased over the years.

1.3 Customers Attitude Tracking

The company has adopted the method of analysing the attitude and preference of the customer with the help of complaint and suggestion system. The customers and dealers give this information to the company through Field Representatives from where these suggestions are communicated to the corporate office. No marketing research activities have been undertaken so far by the
company to know the preference of their brand in the market. The help of advertising agency will be taken for this purpose in near future, said one executive related with extension and publicity.

2. PROFITABILITY CONTROL

The company adopts the profitability evaluation for products on seasonal and yearly basis for different regions. This analysis is in recognition of the fact that only sales and market shares are not important but the ultimate aim is to generate profit. The executives are of the opinion that the basis of allocation of cost is not objective based and there are some biasness involved in it due to subjectivity. For allocation of costs the company takes help from finance department. The purpose of product profitability analysis is neither to add the product nor to delete it but to pinpoint the products and the costs incurred on them so their control should be made possible.

The Regional profitability is limited only upto the state’s level. It does not go for the Area profitability. Reduced profitability of the region requires tonning up of the marketing network including distribution, Extension and Publicity programmes and Field Representatives.

3. EFFICIENCY CONTROL

The broader areas for which efficiency is measured in this organisation are promotion efficiency, distribution
efficiency and personal selling (salesforce) efficiency. The last one is discussed in salesforce control system.

3.1 Promotion Efficiency

The company pays more attention towards promoting the products in the market. The executives make it clear that the farmers are not fully aware of the phosphatic deficiency of the soil and so brand awareness of phosphatic fertiliser is also not of high level. For that purpose advertising and extension and publicity are the important vehicle.

3.1.1 Advertising Efficiency

For the measurement of efficiency of advertisement the company takes help of advertising agency. Till now only once this analysis has been done for print media advertisement. The report has been encouraging as the awareness about the brand has increased after the advertisement. This analysis has been made in some districts of North Zone.

3.1.2 Sales Promotion Efficiency

There are many activities undertaken by this company in the name of extension and publicity like fertiliser education programme, field demonstration, mini-kit distribution, wall paintings, participation in growers seminar, organising Kisan melas etc. The efficiency of some of these programmes have been analysed on the basis of awareness about the brand. The analysis was done by the
outside agency and Mini-kit distribution and field demonstration have been considered to be more effective than the others. Sometimes the company has taken help from the field staff in evaluation of the sales promotion programmes.

3.2 Distribution Efficiency

The marketing executives give due weightage to distribution and they also consider that its efficiency should be analysed on regular basis. There are many types of agencies in distribution of fertiliser in this company having their impact on timely availability of the product in the market. The two important are channel of distribution and transportation.

3.2.1 Channel Efficiency

To distribute fertilisers mainly two types of institutions are involved - private channel and institutional agencies. The total lifting and distribution of fertilisers through these agencies are analysed on monthly, through yearly basis. The informations are provided from Area Managers of the company. The purpose of the analysis is to have the idea about effectiveness of one type of channel over the other.

3.2.2 Transportation Efficiency

Mainly two modes of transport are used for transporting fertilisers from the factory to the field -
railways and road transport. On monthly basis the evaluation of the different modes are being done. The tonnage and damages are considered for evaluation. But the main factor for efficiency is to make the product available at the point of destination during the cropping season. The monitoring of road transport is easier than the railways. The company takes decision of delayed payment to road transporters which is difficult in case of railways. While evaluating transporters the uncontrollable factors like strike, road blockade etc. are also considered.

4. STRATEGIC CONTROL

The company has not adopted strategic control. The executives in the Marketing Department state that we have started manufacturing marketing consumer goods only four years before. A thorough analysis of Micro and Macro environment was made earlier to the decision for operating in this business. The task environment were also analysed in detail and so presently there is no need to engage in this exercise.

The other consideration is that as the company has entered in the field recently and the system for planning and control has been newly introduced so the marketing systems audit is required to be undertaken for improvement, if any.
II. SALESFORCE CONTROL SYSTEM

The salesforce employed by the company in the market are known by different designations such as Sales officers and Field representatives. The duties which are assigned to them are:

(i) to educate the farmers about phosphorous deficiency in the soil,
(ii) to educate the farmers in balanced use of fertilisers;
(iii) to help and monitor the dealers in promoting and distributing fertilisers;
(iv) to collect money from the dealers and deposit them in the bank; and
(v) to monitor the agencies involved in fertiliser distribution; and
(vi) to report performance of sales and market condition regularly to the next higher level.

1. TERRITORIES

The placement of Sales Officers are in territories which are formed by combining a number of districts. The concept of one district one person has not been adopted as the executives consider that it is better to assign in the beginning a combination of districts to one Sales Officer. When the potential of the area will increase and more
number of dealers will be required for distribution of fertilisers, redistricting of territories will be done.

The company has adopted some measures for salesforce control. They are:

2. Quota achievement;
3. Sales Budgeting; and
4. Efficiency analysis.

The company not gone for qualitative evaluation of sales officers.

2. SALES QUOTA

For individual sales officers, product-wise sales volume quotas are set for both the seasons separately. The performance of the Sales officers are evaluated and monitored by the Assistant Manager (Marketing) who is the next higher authority in the hierarchy. The sales officers have to report on weekly basis about the sales of different products. If the Sales officers do not achieve their quotas, they are required to explain the position of the market and competitors in monthly meetings with the Assistant Manager. The other uncontrollable factors like drought, flood and bad economic condition of the farmers are taken into account while evaluating the performance of the Sales officers. On quota achievement there is no incentive like promotion or commission on sales etc. but if
they fail to achieve the quota on continuous basis, it may lead to warning letter or transfer to the other territory.

The company does not set activity quota for monitoring other tasks assigned to the Sales officers.

3. Sales Budget

To control the affairs of the Sales officers, Sales budgets are prepared on yearly basis having the components of Sales revenue, personal selling and sales administration expenses. The sales revenue are the amount to be generated which are broken down as per the territories on seasonal and product basis. The expenses include salaries, travelling expenses, sales administration expenses and other allowances. The sales revenue are determined at the higher level where the expense estimates are initiated at the Asstt. Managers level and passed and approved through the channel at the top level. The revenue are monitored by the Asstt. manager who happens to occupy the next higher position than the Sales officer.

The expenses are monitored by the Area Manager on quarterly basis so the amount should not be over-spent. The quarterly review enables the manager to take corrective action in the forthcoming period by restricting the expenses done by the Sales officers.

The expenses are determined based on the requirements of the market and they do not depend on sales or profit.
4. Efficiency Analysis

Sales officer efficiency is analysed on continuous basis for different types of responsibilities in addition to the efficiency analysis with the help of expenses and sales.

4.1 Sales Calls

The sales officers have to make calls on the dealers and customers from time to time, but the company has not adopted the mechanism to evaluate the efficiency of Sales officers with the help of calls. The calls schedules are not prepared for monitoring the activities of Sales Officers.

4.2 Personal selling expense to Sales

The efficiency analysis with the help of expenses and sales are not adopted by the Area manager for the evaluation of Sales Officers. There is no trend setting of this ratio as it is not being considered for evaluation.

4.3 Responsibility Evaluation

Apart from generation of sales revenue, there are many other important activities for the organisation which are undertaken by the Sales Officers like promotion of fertilisers, collection of sales proceeds, dealer developments, reporting etc. These activities are also monitored by the Asstt. Manager (Marketing).
4.3.1 Promotion Efficiency

Subjective evaluation of active participation in organising and monitoring sales promotion programmes is undertaken by the company. The evaluation takes place after the programmes are over.

4.3.2 Credit collection

Sales officers have to monitor the credit sales also. Credit collection is their important duty. The Asstt. Manager reviews the credit collection of the Sales Officers on monthly basis in terms of total credit sales and collection made during the period.

4.3.3 Reporting

The reports are to be sent to the next higher level on weekly basis. These reports should be regular. If the reports are not regular, the Asstt. manager does not take casual view, because these reports form the basis of Corporate reporting.

4.3.4 Dealer Development

The dealers are being trained and monitored by the Sales Officers on regular basis. The Sales officers are evaluated on the basis of number of programmes organised.

4.3.5 Warehouse Monitoring

To ensure that the warehouses are utilized properly, and there is no shortage of supply of fertiliser in the market. They have not adopted any method for evaluation of Sales officers in this respect.
The above explanation about the efficiency analysis requires the Asstt. manager to give early signal to the Sales Officer for his active and positive participation. Transfer of Sales Officer is not the aim but a compulsion of the situation. Though the executives claim that a counted number of persons have faced written warning and no one has been transferred so far for negligence of duties.

5. Behaviour Based Evaluation

The evaluation of sales officers is not done on co-operativeness, resourcefulness, public relation etc. The only way of knowing about the behaviour of Sales Officer is by the complaint and suggestions provided by the dealers and customers.

III. ACCOUNTING TECHNIQUES IN MARKETING CONTROL

PPCL uses some accounting techniques for marketing control purposes. The techniques are wide ranging but some are basic for controlling the affairs where others are complementary to it. The major categories of accounting techniques being considered here are:

1. Ratio Analysis;
2. Budgeting;
3. Variance analysis; and

1. The ratio analysis is applied for both output and input control in this organisation. For output control the
company relies on:

1.1 Profitability Ratio; and
1.2 Turnover Ratio.

1.1 Profitability Ratio

Profitability ratio occupies the place of importance in this company and they are analysed on two parameters.

1.1.1 Gross profit to sales ratio; and
1.1.2 Net profit to sales ratio.

Seasonal and annual ratios are calculated for four major products produced by the company and for DAP which is a bought out item. The additional area for which the profitability is analysed is the state-wise profitability for both the seasons. The executives consider that not only product but the geographical segment is also important for analysis.

The allocation of cost of marketing for individual product and markets is a difficult job as there exists an element of subjectivity or biasness.

This ratio is compared with the ratio of previous year current year control and direction for future period.

1.2 Turnover Ratio

In the category of Turnover ratios, mainly these three ratios are used in this company for marketing control.
1.2.1 Inventory Turnover ratio;
1.2.2 Average collection period; and
1.2.3 Debtors to Sales Ratio.

The other ratios which are of importance for the organisation like liquidity, leverage, or valuation ratios are not used for control by the Marketing executives.

1.2.1 The Marketing executives consider that the products marketed by the organisation are inventories for the marketing Division. The efficiency of its management is better known by this ratio which is calculated for the state's for both the seasons and on yearly basis and is compared with the corresponding ratios of previous year.

1.2.2 The average debt collection period is calculated quarterly, through annually for the company as a whole and for the states. They are compared with the previous year ratio.

1.2.3 On seasonal and yearly basis, the debtor's to sales ratio is calculated for the state and territories and is compared with the previous year ratio to monitor the Sales officers and Area Managers to put greater effort in debt collection.

The utilisation of these ratios on seasonal and yearly basis are for product or territories or for both purposes - mid term corrective action and future direction for monitoring the marketing efforts.
The other dimension of the ratio analysis is the input ratio. The ratios are mainly calculated in reference to the sales made in that period. The company considers only two expenses on the basis of sales analysis. Promotion to sales and sales administration to sales.

The executives consider that these two ratios are having relevance for control in current period. Further queries revealed that sales administration includes expenses on Sales Officer.

1.3 Promotion to Sales Ratio

The ratio for promotion expense to sales are calculated at the Corporate Marketing Division. The promotion expenses include the Advertising expenses and sales promotion expenses both.

1.3.1 Advertising to Sales Ratio

Advertising expenses to Sales ratio is calculated on annual basis and is compared with previous period ratio. Indepth analysis of different component of the expenses with the help of ratio is not done like media cost to total advertising expenses or agency charges to advertising expenses etc.

1.3.2 Sales promotion to Sales Ratio

Sales promotion (known as extension and publicity) to sales ratio is calculated on seasonal and yearly basis. The result of sales promotion is immediate and there exists positive relationship between these two, so this ratio
serves the purpose better. Evaluation of separate programme is done in terms of individual programmes to total sales promotion cost on seasonal basis to control cost. This works as a supplement to the cost control through budgets.

1.4. Distribution, Personal Selling and Marketing Research to Sales Ratios

For distribution cost, the ratio is calculated in terms of total marketing cost to compare it with the industry ratio. For control purposes the budgets are the basic guide, supplemented by the ratio of transportation, handling, warehousing to total marketing cost. Distribution to Sales ratio and personal selling expenses to Sales ratios are not calculated and similar is the case of marketing research to sales.

1.5 Sales Administration to Sales Ratio

Sales administration cost to sales is calculated on yearly basis for the company as a whole and for zonal and state offices. The distinguishing feature is that the personal selling expenses are included in Sales administration cost. The ratio is compared with the previous year ratio. One executive in Marketing Division put his opinion that it is the efforts and facilities both which are responsible for generation of sales so the consolidation of these two components is not meaningless.
2. BUDGETING

2.1 Sales Budget: The budgets are prepared for a number of activities of marketing. For output control sales budgets are prepared for different products in terms of volume and rupee value for both the seasons, Rabi and Kharif separately. They are the targets for achievement from the market. They are broken down for Zones, States and territories. The budget progress reports are received through the hierarchical channel from the territories to the Marketing Division on monthly basis. The G.M. (Marketing) holds the meeting of Executives of Zones and States on quarterly basis.

For controlling marketing costs, the following budgets are prepared:

2.2 Promotion Budget;

2.3 Distribution Budget; and

2.4 Sales administration Budget.

2.2 Promotion Budget

Promotion Budgets includes two types of budgets prepared separately in this company.

2.2.1 Advertising Budget

This budget is prepared on annual basis. The main components included in the budget are media charges and agency charges. The review of expenses are being made on half yearly basis. The budget overrun is generally not
allowed unless there is pressing need and proper justification.

2.2.2 Sales Promotion Budget

Sales promotion budget is prepared for one year period. The total amount is broken down for individual programmes for different zones and states. The review of expenses are done on half yearly basis and that review is supported by the sales promotion to sales ratio of last two years period.

2.3 Distribution Budget

The expenses on distribution are controlled with the help of distribution budget. The items of budgeting are transportation (separated for railways and roadways), packaging, handling, warehousing etc. The break-up of budget is product-wise, seasonal and yearly. Quarterly review of expenses is done on the basis of reports provided by finance section. This is not supported by ratio analysis.

2.4 Sales Administration Budget

Sales administration budgets are prepared on yearly basis for zones and states. Quarterly review is made for monitoring and controlling the expenses.

2.5 Personal Selling Expense Budget

Personal selling budget is not prepared in this organisation but the expenses incurred on personal selling
are included in sales administration budget.

2.6 Marketing Research Budget

Marketing Research Budget is not prepared in this company as that activity is not undertaken at regular basis.

The executives believe that the budgets are prepared for one year period and the they are not allowed to over spend the budget in normal course. To control the expenses mid-year or quarterly review of expenses is done. The variances are also calculated with the actuals so that the executives should take additional care in making expenses in future period.

3. VARIANCE ANALYSIS

Variance analysis is used by the marketing deptt. In case of Sales variance the company uses volume variance only. These variances are calculated for the whole company, zone and states. In case of input control, the actual expenses are compared with the budgeted expenses during the year for all the activities. For mid-term review the total yearly budgeted figure is equally divided and then compared with the actual figure. The favourable and unfavourable variances are calculated.

4. RESPONSIBILITY CENTRE

The executive consider that for the evaluation and control purposes, the concept of responsibility centre has not been adopted. Marketing Division as a whole is being
treated as Revenue Centre where the evaluation is in terms of sales generated over the year and the cost incurred are not taken into account for evaluation.

IV. MARKETING KEY VARIABLE

As a new entrant in consumer goods manufacturing and marketing, the company executives consider that these products being produced by this company should get a strong foothold in the market along with generation of revenue for the growth of the organisation.

The key variable which is most sensitive to the marketing objective is "awareness about phosphatic fertiliser" among the customer. The company with the help of Field Representative and Sales Officers try to popularise the Mossoorie Phos and Sone Ganga Khad and make all out efforts in this respect.

The other key variables for control are:

(i) Customer satisfaction;
(ii) Ensured supply during cropping season;
(iii) Quality and Weight;
(iv) Sales and Costs control; and
(v) Proper packaging and transportation.

The executives consider that these variables are in order of priority.
REFERENCES


3. Publicity pamphlets of PPCL, including Diary 1992 of the Company.

4. Fertiliser Association of India, New Delhi, Fertilizer Statistics, 1990-91, Table No.1.02(a)


7. Ibid.


10. Ibid and Publicity material.

11. Ibid.

12. Ibid., p.43.

13. Publicity Material published by PPCL.


15. Ibid., p.25.

16. Ibid., pp.24-25.

17. Ibid., p.65.
CHAPTER VIII

ANALYSIS AND INTERPRETATION OF CASE STUDIES

The aim of the present chapter is to analyse and interpret case studies discussed in chapter IV to VII. The ultimate aim of the analysis is to reach a stage where a clear picture should emerge to critically appraise the control systems being applied by the Marketing Divisions of the fertiliser industry to propose some constructive suggestions for improvement in the system in the subsequent chapter. In addition to that the analysis is also expected to retain the spirit of case studies.

Based on the above ideas, the chapter has been divided into two sections. The first section deals with the analysis and interpretation of the individual cases on the pattern they have been presented in chapter IV to VII, whereas the second section is meant for the analysis and interpretation of the systems being applied by the industry as a whole. This section is based on the discussions of first section of this chapter and the matter in respective case studies along with the researchers comment.

SECTION I

1. ANALYSIS AND INTERPRETATION OF MARKETING CONTROL SYSTEMS OF FCI

The informations provided in the chapter IV brings out some facts regarding application of marketing controls in Fertiliser Corporation of India.
1.1 Marketing Control Practices:

Three types of controls are in use in the company namely, Annual Plan Control, Profitability Control and Efficiency Control. The strategic control which is generally implemented in the form of marketing audit has not been applied in its true sense of the term.

In case of Annual Plan Control, the Sales Analysis with the help of sales budget is being applied thoroughly. Reporting pattern is quite systematic and as the analysis is done on monthly basis, the meetings are frequently held at Regional and G.M. (Marketing) level. This analysis is the main component for current period control and it is comprehensive in nature. Here the concern is mainly for financial reporting delays, which ultimately effects on scheduling the meeting by a fortnight after the passing of the month.

The company takes help of market share analysis for the purpose of relating its performance with its competitors in the market on annual basis. The company uses the indicator of relative market share in comparison with the other public sector undertakings operating in that area where it operates. The corrective action for future period is quite exhaustive but the scope is limited for current period control. Comparison is made with previous period ratio and no trend analysis of the ratios are undertaken over a period. Similarly the normal year as base for
comparison is also not considered. The customers attitude tracking for control of marketing effort is not initiated by the company though it takes up the complaints and suggestions scheme for improvement in their marketing activities. No regular effort is made for survey of customers opinion or holding customers panel discussions. For promotional effort evaluation sometimes it is being done.

Profitability control has got limited application in this organisation as the company is not earning profit since long. Not even product profitability is analysed for evaluation of marketing effort. The study of channel, territories and seasons in terms of profitability are also not considered. In addition to that proper allocation of cost is also difficult for their study.

The efficiency control is adopted for the analysis of advertising, sales promotion, channel and transportation separately. The advertising efficiency is measured campaignwise by the marketing division. The approach of control is futuristic in nature. This analysis is neither regular nor there is a clear base for evaluation. There is an element of biasness as the marketing department evaluates the campaign and no help is taken from outside agency. There is no mid-term review of opinion of customer.
The sales promotion efficiency is comprehensively utilised but the element of biasness can not be ruled out.

The scope of channelwise efficiency analysis is limited in this company. Though on the basis of regional office reporting about off-take of product, both the channels are analysed on monthly, quarterly and seasonal basis but the analysis is not comprehensive for control in the sense that segments are not evaluated. Transport efficiency is quarterly evaluated separately for both railways and roadways. The company has lesser control on railways than the roadways. The analysis and critical comments shown in the exhibit 8.1 and the discussion of case in the preceding part of this chapter indicates that the company relies mainly on sales and market share analysis. customers attitude are not analysed thoroughly at the initiative of the company. Efficiency control is applied but the scope for corrective action is limited. Profitability control is not stressed due to its operating losses throughout. Strategic control has not been applied in this organisation.

1.2 Sales force control System:

As far as the sales officers control system in this company is concerned, the territories are designed for their placement. The determination of territory is on geographical rather than potential basis.
### EXHIBIT 8.1

MARKETING CONTROL PRACTICES IN FCI

<table>
<thead>
<tr>
<th>TYPES OF MARKETING CONTROL</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. ANNUAL PLANT CONTROL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Sales Analysis</td>
<td>Monthly through yearly, Product and region, Bottom up reporting, meeting monitoring at GM (Marketing) and Regional level.</td>
<td>Comprehensive, Financial reporting delay.</td>
</tr>
<tr>
<td>1.2 Market Share analysis</td>
<td>Yearly analysis, relative to public sector, Information from Ministry, Causes mainly in distribution, gearing distribution and promotion. Futuristic in corrective approach.</td>
<td>Not for market served or over all market, No trend of share over a period, No current period control.</td>
</tr>
<tr>
<td>1.3 Customers attitude tracking</td>
<td>Complaint and suggestion method, limited for promotion efficiency evaluation, No company initiative.</td>
<td>No customer survey, No customer panel, discussion, Not regular</td>
</tr>
<tr>
<td><strong>2. PROFITABILITY CONTROL</strong></td>
<td>Gross profit and Net profit to Sales ratio. No product, regional or seasonal profitability, Allocation of cost difficulty.</td>
<td>No stress on profitability due to long period of loss sustenance.</td>
</tr>
<tr>
<td><strong>3. EFFICIENCY CONTROL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.1 Advertising</td>
<td>Campaign-wise, post-programme evaluation on the basis of awareness.</td>
<td>Irregular, Not by outside agency.</td>
</tr>
<tr>
<td>3.1.2 Sales Promotion Efficiency</td>
<td>Mid-term review, individual programmes are evaluated by field staff, Diversion of resources on regional and seasonal basis.</td>
<td>Comprehensive elements of biasness</td>
</tr>
</tbody>
</table>
3.2.1 Channel Efficiency
Institutional and private channel, channel-wise monthly - yearly analysis, regional office reporting, basis of lifting.

3.2.2 Transportation Efficiency
Quarterly evaluation, volume of fertiliser movement, plants provide information, separate for rail and road.

4. STRATEGIC CONTROL
Evaluation of competitors, Economic condition appraisal.

No complete, systematic and comprehensive audit.
The sales volume quota is operative for Sales Officer control and the feature which gives this quota a special place in control is the comprehensiveness of its application. But the company does not set activity quota for want of which evaluation of sales promotion, reporting, warehouse monitoring, credit collection efforts become difficult. The combination of sales volume quota and activity quota is out of question as the later is not set. The corrective action is negative only as the negligent sales officers are transferred to some other territories but the star performers are not provided with incentives or career advancement.

The sales budgets are utilised for sales officers control and the two components of the budget - income and expenditure estimates are initiated in opposite direction and the expenses are not linked with sales, quota or profit. Monitoring with the help of budget is comprehensive.

Control of sales officers with the help of calls have not been applied in this company as the call schedules are not prepared. The efficiency of sales officers are analysed with the help of personal selling expenses and resultant sales in the territory on seasonal and yearly basis. There is no trend setting or normal year
base for comparison. The analysis is not comprehensive in terms of application.

The responsibilities assigned to the sales officers are of varied nature and for its role in promotion the subjective evaluation of participation in sales promotion efforts are considered. The company does not set any specific standard for this purpose and the evaluation is subjective. The credit collection being an important responsibility of sales officers, the Area Managers use the ratio of collection to total credit sales but the standards are not set for the seasons or months though it is comprehensive in analysis. The reporting, mainly during cropping seasons are on weekly basis and evaluation is based on periodicity and content of report. The analytical approach of reporting are not considered. The role of sales officers in dealer development are evaluated on the basis of number of the programmes organised/attended. But the content and effectiveness of the programme and inputs provided by the sales officers are not evaluated. The standards are not set for seasons or year. The warehouse monitoring evaluation done with the help of number of visits made by the sales officer. No standard number of visits have been specified for month or seasons etc. The results of visit and the counselling for the
proper utilisation of warehouses are not considered for evaluation.

The corrective action is not for a single activity not performed properly, but for a composition of different responsibilities. The company does not provide incentives but if any one shows negligence, he is transferred to the other region.

The behaviour based control with the help of cooperativeness, resourcefulness, public relation etc. is not applied in this organisation for controlling Sales Officers.

The overall idea regarding sales officers control based on discussion and Exhibit 8.2 is that though all the techniques of control are applied in this company (except efficiency analysis with the help of calls and qualitative evaluation, which are not in use at all), none of them are comprehensive in nature. Due to lack of setting up of activity quota, the responsibilities assigned to the sales officers are not properly controlled.

1.3 Accounting Techniques in Marketing Control

For controlling the input and output of marketing, the company uses ratio analysis, budgeting and variance analysis.

Profitability ratios are used for output control. Gross Profit and net profit to sales ratios are calculated
**EXHIBIT 8.2**

**SALES FORCE CONTROL SYSTEMS IN FCI**

<table>
<thead>
<tr>
<th>TYPES OF SALESFORCE CONTROL</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Territories</td>
<td>Geographical basis, administrative district or combination</td>
<td>No potential base of territorisation.</td>
</tr>
<tr>
<td>2. Quota</td>
<td>Sales volume quota by product and season weekly reporting of performance. Regional office monthly meeting. No incentive for better performance, transfer posting as punishment.</td>
<td>No activity or combination quota, Corrective action negative, Comprehensive.</td>
</tr>
<tr>
<td>3. Sales Budget</td>
<td>Sales and expenses. Top down setting of revenue and bottom-up expenses, Area office monitoring.</td>
<td>Comprehensive, Expenses not linked with sales or profit.</td>
</tr>
<tr>
<td>4. Salesforce efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1 Sales calls</td>
<td>No call planning, no control with the help of calls.</td>
<td>Resulting on evaluation of responsibilities.</td>
</tr>
<tr>
<td>4.2 Salesforce expense to sales analysis</td>
<td>Seasonal and annual analysis, comparison with previous period.</td>
<td>Not comprehensive.</td>
</tr>
<tr>
<td>4.3 Responsibilities evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3.1 Promotion efficiency</td>
<td>Active participation in promotion.</td>
<td>No standard, Subjective evaluation.</td>
</tr>
<tr>
<td>4.3.2 Collection efficiency</td>
<td>Ratio between credit sales and collection, early warning for special drive.</td>
<td>Comprehensive.</td>
</tr>
<tr>
<td>4.3.3 Reporting</td>
<td>Comprehensiveness and periodicity basis of evaluation.</td>
<td>Not analytical basis.</td>
</tr>
<tr>
<td>4.3.4 Dealer development</td>
<td>Number of programmes organised.</td>
<td>No effectiveness or content of the programme analysis.</td>
</tr>
<tr>
<td>4.3.5 Warehouse monitoring</td>
<td>Number of visits made to the warehouses.</td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No standard. Result of the visit not considered. Counselling not considered.</td>
<td></td>
</tr>
<tr>
<td>Corrective action:</td>
<td>Corrective action: Area Manager may request to transfer them. No incentive for performance but sometimes praised. No retrenchment of the Salesforce.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Negative approach of corrective action.</td>
<td></td>
</tr>
<tr>
<td>5. Behaviour based evaluation</td>
<td>No evaluation on the basis of behaviour and qualities.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No evaluation on the basis of behaviour.</td>
<td></td>
</tr>
</tbody>
</table>
separately but as the company is not earning profit for a long time, so the different other break-up of season, segment and periods are not considered.

In the category of turnover ratios, the company utilis es, inventory turnover, debtors to sales ratio and average collection period. But none of them are comprehensively used in this organisation. They are used on annual basis and for the Marketing Division only.

For input control, wide ranging ratios are used. In promotion category the advertising to sales and sales promotions to Sales ratios are used on yearly basis. Advertising expenses are broken down for the media and agencies and are analysed in terms of total advertising expenses also. Similarly the sales promotion to sales ratio are calculated on yearly basis and they are not used for different cropping seasons regularly. The cost of individual programmes of promotion are not evaluated in terms of revenue for the different segments.

Ratio analysis is also used for the evaluation of distribution cost. The individual component of distribution costs are analysed with the help of total marketing cost as it gives an easy way to compare this ratio with the industry ratio. The seasonal analysis is not done though they calculate it for product.
Distribution cost to sales ratio is used on yearly basis for future planning. But this analysis is not comprehensive in terms of product, season or regional expenses and resultant sales. On the pattern of distribution cost control, the personal selling expenses are also evaluated but they are not comprehensive in terms of season or region etc.

The sales administration costs are evaluated with sales on yearly basis and the company uses it comprehensively for regional and area offices. The marketing research expenses are not evaluated in terms of sales.

The exhibit 8.3 (b) details about the description of use of budgets for controlling sales revenue and marketing expenses. The sales budgets are prepared for one year period with its different break-up and are monitored monthly. Its use in the organisation is comprehensive. For controlling marketing expenses many budgets are prepared and monitored. Advertising expenses are reviewed on half yearly basis, sales promotion budgets on monthly basis and they are comprehensively used. Distribution budget is reviewed on mid-term basis but it can not be said that the control is comprehensively applied. Personal selling budget limits the expenses to be incurred on salesforce and the expenses are quarterly reviewed which
can be said as comprehensive evaluation. Similarly, the sales administration expenses are evaluated quarterly on the Regional basis which is comprehensive. The marketing research expenses are not set separately but attached with advertising agency charges in the year they plan for it.

The use of variance analysis for output control is limited in terms of volume variance. Price or mix variances are not important as the prices in past were unchanged. For control of input the variances of actual cost with the budgeted costs are calculated for the period and area of study. They are termed as favourable and unfavourable variances. The application of variance analysis is comprehensive in this organisation.

Corporate Marketing Division has been considered as revenue centre where the Regional and area offices are not evaluated on the concept of responsibility centre.

The accounting techniques applied in this organisation are mainly ratio analysis, budgeting and variance analysis. The ratios are used for output and input control. The Exhibit 8.3 (a) and (b) gives the idea that though the company is using both the techniques but there is no comprehensive use of these techniques in this organisation. Marketing research expenses are very limited and are not set separately, so ratio in terms of sales is not calculated. Similarly the budget is not prepared and
## EXHIBIT 8.3(a)

### ACCOUNTING TECHNIQUES IN MARKETING CONTROL IN FCI

<table>
<thead>
<tr>
<th>TYPES OF TECHNIQUES</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. RATIO ANALYSIS</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 1.1 Profitability Ratio | OP to Sales ratio  
NP to Sales ratio  
For profitability analysis, on yearly basis.  
No profit so no stress, cost allocation difficult. | Limited use in Marketing control.  
Not comprehensive.  
No trend of ratios. |
| 1.2 Turnover ratio | Inventory Turnover, Debtors to sales, average collection period are calculated.  
Only for Marketing Division on yearly basis, comparison with previous year. | Not comprehensive,  
No trend,  
No normal year base for evaluation,  
Limited use. |
| 1.3.1 Advertising expense to Sales ratio | Yearly analysis, Media cost and agency charges are also analysed in terms of advertising cost, past period comparison. | Utility limited, comprehensive. |
| 1.3.2 Sales promotion expenses to Sales ratio | Yearly evaluation, evaluation in next cropping season irregular, individual programmes not further evaluated with sales. | Not comprehensive, Irregular. |
| 1.4 Distribution cost to Sales ratio | Yearly evaluation, Future period control, Componentwise ratio to total marketing cost for industry comparison. | Not comprehensive in terms of region and seasonal analysis, No mid term review Indepth. |
| 1.5 Personal selling expense to Sales ratio | Yearly evaluation, future period control, componentwise ratio to total personal selling expense. | Not comprehensive but indepth, No mid-term review. |
| 1.6 Sales Administration to Sales ratio | Yearly analysis with regional, Area sales, Previous year comparison. | Comprehensive. |
| 1.7 Marketing Research to Sales ratio | Not set but attached with advertising agency charges. | - |
## EXHIBIT 8.3(b)
### ACCOUNTING TECHNIQUES IN MARKETING CONTROL IN FCI

<table>
<thead>
<tr>
<th>TYPES OF TECHNIQUES</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. BUDGETING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 Sales Budgets</td>
<td>Volume of product, value in Rupees Area-wise analysis, widely used, Monthly-Yearly review.</td>
<td>Comprehensive.</td>
</tr>
<tr>
<td>2.2.1 Advertising budget</td>
<td>Annually determined Mid-period review of expenses, for cost control.</td>
<td>Comprehensive.</td>
</tr>
<tr>
<td>2.2.2 Sales promotion budget</td>
<td>Component, season, region-wise prepared and analysed on monthly basis.</td>
<td>Comprehensive.</td>
</tr>
<tr>
<td>2.3 Distribution Budget</td>
<td>Component-wise prepared, seasonal evaluation for components.</td>
<td>Not comprehensive in terms of periodicity.</td>
</tr>
<tr>
<td>2.4 Personal selling budget</td>
<td>Quarterly evaluation, Region-wise and Area-wise.</td>
<td>Expenses not linked with achievement, Comprehensive.</td>
</tr>
<tr>
<td>2.5 Sales Administration budget</td>
<td>Quarterly evaluated for Regional and Area offices.</td>
<td>Comprehensive.</td>
</tr>
<tr>
<td>2.6 Marketing Research Budget</td>
<td>Not set, attached with agency charges of advertisement.</td>
<td>Not applied.</td>
</tr>
<tr>
<td>3. VARIANCE ANALYSIS</td>
<td>Volume variance for Sales control. Not for Regional and Area analysis. No price variance, no mix variance For cost control, favourable and unfavourable variances are calculated.</td>
<td>Limited use. A comprehensive.</td>
</tr>
<tr>
<td>4. Responsibility Centre</td>
<td>Not applied at Divisional or regional etc. level</td>
<td>Not applied.</td>
</tr>
</tbody>
</table>
reviewed. The ratios are considered to be supplementary to budgeting when it comes to cost control. Favourable and unfavourable variances are calculated for input control. But for output control only volume variance is of use due to the nature of pricing. Responsibility centre concept has not been properly applied for all the segments of markets.

1.4 Marketing Key Variables

The key variable which is considered to be sensitive to the marketing Division indicates that the company is more interested in distribution of fertilisers than the marketing of fertilisers which is responsible for the application of different techniques of control differently. Quality and weight; cost reduction; proper packaging and transportation have been considered as input variables whereas customer awareness and customer satisfaction are output variables. The output variables are higher in priority order than input variables.

2. ANALYSIS AND INTERPRETATION OF HFC CASE

2.1 Marketing Control Practices:

For the control of marketing affairs, Annual Plan and efficiency controls have been adopted. Profitability and strategic controls have not been applied. The idea of the executives for profitability analysis is not based on its
disutility but on the concept that the other ways are there to monitor expenses and revenues.

The Annual Plan control is implemented with the help of Sales analysis, market share analysis and customers attitude tracking. Sales analysis is comprehensive in nature, the reporting pattern is bottom up and regular and monitoring is done with the help of meetings. The Marketing Divisional meeting is not regular but frequent and only sales are analysed. The executives generally blame the production side of the organisation for negative profitability and they have become accustomed to the losses which the company incurs.

Control with the help of market share is also comprehensive in the company but it does not go for over all market share. Its shares are analysed with the help of allocated and relative markets. As it is calculated on yearly basis so its scope for control becomes limited in the current period but the company formulates strategy for future period taking into account the comparison of market share over previous year. Normal year performance as base has not been considered for evaluation. The company has not tried to set a trend of past period shares.

For attitude tracking of the customer, the company relies on complaint and suggestion schemes. The two sources are direct information and information through
Sales officers. But both are spontaneous and not at the initiative of the company. The customers opinion survey or panel discussions are not conducted. Customer opinion for control is sometimes taken by field staff.

Profitability control is not applied in this company. Even the regional or seasonal profitability is not ascertained. The executives are of the opinion that its scope is limited as the product or market can not be changed. Only Gross and Net profits to sales ratios are calculated.

The efficiency analysis is adopted by the company for promotion and distribution. The advertising efficiency is analysed by the company’s own marketing department on irregular basis. This brings some amount of biasness in evaluation. For promotion efficiency, the opinion of customers about the programmes are taken into account but no outside agency is involved and diversion of resources for promotion is for other season, but not for other region.

For the review of performance of distribution the channelwise analysis is adopted on the basis of lifting of fertilisers for which information are provided from Regional Offices. Its use is limited and the analysis is comprehensive. Transportation efficiency is analysed on seasonal basis, separately for both rail and road
transports. The road transport monitoring is comparatively easier than the railways.

The application of marketing audit for strategic control has not been applied in this company. Even the individual component of the audit has not been undertaken.

The above discussion on the application of different types of marketing control in HFC and the Exhibit 8.4 make it clear that the annual plan control is exercised mainly with the help of sales analysis and market share analysis. The reporting of the market is from the salesforce, the Ministry of Agriculture or from the Fertiliser Association of India as the need arises. The corrective actions are futuristic in nature in most of the cases. The profitability control is not adopted simply because the company is not earning profit for a long period of time. The customer's attitude is not analysed at the initiative of the company and the concept of strategic control has also not been considered for application. The efficiency analysis is done, for promotion and distribution with some objective and subjective criteria.

2.2 Salesforce Control System

The territories are designed in this company on the basis of administrative districts or their combination and there is no consideration of geographical concentration, dispersion or potential of the customer. The sales volume
<table>
<thead>
<tr>
<th>TYPES OF MARKETING CONTROL</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ANNUAL PLAN CONTROL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Sales analysis</td>
<td>With the help of sales budget, Monthly through yearly reporting from Sales officer to marketing Division, Regional meeting monthly.</td>
<td>Marketing division meeting irregular. Comprehensive in terms of period.</td>
</tr>
<tr>
<td>1.2 Market Share</td>
<td>Allocated and relative, annual, previous year comparison, environmental causes, Ministry and FAI data.</td>
<td>Comprehensive system of monitoring. No trend of share, No current period control.</td>
</tr>
<tr>
<td>1.3 Customers Attitude Tracking</td>
<td>Complaint and suggestion, from Sales Officer and direct to Region or Division.</td>
<td>No initiative of the company, No customer panel or opinion survey.</td>
</tr>
<tr>
<td>2. PROFITABILITY CONTROL</td>
<td>No analysis for product region and season GP and NP to Sales ratio for previous year comparison.</td>
<td>Scope is limited due to no choice of product and market change.</td>
</tr>
<tr>
<td>3. EFFICIENCY CONTROL</td>
<td>Post programme evaluation by marketing department</td>
<td>Biasness due to internal evaluation, Irregular evaluation.</td>
</tr>
<tr>
<td>3.1.1 Advertising efficiency</td>
<td>Programwise analysis on seasonal basis Evaluation by field staff on awareness basis Change of programme from one season to another.</td>
<td>Biasness in evaluation, No regional change of resources.</td>
</tr>
<tr>
<td>3.2.1 (Channel)</td>
<td>Lifting of Fertilisers through the channels.</td>
<td>Limited use, Area Analysis.</td>
</tr>
<tr>
<td>3.2.2 Transportation efficiency</td>
<td>Separate evaluation of rail and road, seasonal analysis, stoppage of payment, No further renewal.</td>
<td>Road transport mostly easier than Railways.</td>
</tr>
<tr>
<td>4. STRATEGIC CONTROL</td>
<td>No marketing audit, Not done for any component.</td>
<td>No concept of marketing audit.</td>
</tr>
</tbody>
</table>
quotas are set for the seasons for individual sales officer. Continuous monitoring is done on the basis of quotas by the Area Manager (Sales). In case of non-achievement of quota on persistent basis, warning letters are issued and they are transferred but there is no financial reward for good performance. The corrective action is negative. The separate quotas for individual dealers are also set so the sales officers can monitor them. The activity quotas are not set which makes the monitoring of sales officer's responsibilities difficult.

The sales budget for Sales officers control are prepared. They include the expenses to be incurred on personal selling but the problem is that the expenses are not linked with either sales or quota or profit. The monitoring of budget is comprehensive.

The efficiency analysis with the help of sales calls have not been adopted by the company. There is no call schedule for the dealers and farmers in this organisation. The efficiency analysis with the help of personal selling expenses and sales are adopted on seasonal basis and are compared with previous year ratio. The normal year ratio as base and trend of past ratios are not considered for evaluation. The analysis is not comprehensive in terms of periodicity.

The evaluation of responsibilities like promotion, collection, dealer development, warehouse monitoring are
undertaken and the standards are varying for the different responsibilities. For promotion, subjective evaluation like active and successful participation is considered. There is no standard for this purpose. The credit collection is evaluated on the basis of ratio between credit sales and collection and early warning is given for special effort for credit collection. Periodicity and content form the basis of evaluation of reporting and not the analytical approach adopted in reporting. Number of programmes conducted for dealers development is the basis of evaluation but the content and result of those programmes are not considered. Similar is the case of warehouse monitoring. Behaviour based evaluation on the basis of resourcefulness, co-operativeness, public relations etc. is not applied by the Area Managers for evaluation of sales officers.

The Exhibit 8.5 and the discussion above reveal that the salesforce control system as it is applied in this company is taking help of most of the methods like territories setting, quota system, efficiency analysis and sales budgeting but they are not comprehensive. The drawback in territories are that they are set as per the administrative districts without considering the potential. Sales budgets are set where the expenses are not linked with revenue; quotas are set but there is no concept of
### EXHIBIT 8.5

II. SALESFORCE CONTROL SYSTEMS IN HFC

<table>
<thead>
<tr>
<th>TYPES OF SALESFORCE CONTROL</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Territories</td>
<td>Geographical territorialisation, administrative district or their combination.</td>
<td>Not on the basis of potential.</td>
</tr>
<tr>
<td>2. Quota</td>
<td>Product-wise Sales volume quota for seasons, weekly reporting of performance. Regional office monthly meeting, warning for non-achievement. Dealers quota also set.</td>
<td>Quota monitoring comprehensive, No activity quota. Corrective action is negative.</td>
</tr>
<tr>
<td>3. Sales budget</td>
<td>Sales budget set top-down, expenses initiated bottom-up, Quarterly review of expenses at Regional level.</td>
<td>Expenses Not lined with quota or Sales Monitoring comprehensive</td>
</tr>
<tr>
<td>4. Salesforce efficiency</td>
<td>No concept of calls</td>
<td>No calls schedule leading to many problems in evaluation of responsibilities.</td>
</tr>
<tr>
<td>4.1 Sales Calls</td>
<td>No concept of calls</td>
<td>No calls schedule leading to many problems in evaluation of responsibilities.</td>
</tr>
<tr>
<td>4.2 Salesforce Expense to Sales analysis</td>
<td>Previous period comparison, seasonal review.</td>
<td>No normal year as base, No trend, Not comprehensive in terms of period</td>
</tr>
<tr>
<td>4.3 Responsibilities evaluation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3.1 Promotion efficiency</td>
<td>Active participation in promotion</td>
<td>No standard, subjective</td>
</tr>
<tr>
<td>4.3.2 Collection efficiency</td>
<td>Ratio between credit Sales and collection</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>4.3.3 Reporting</td>
<td>Comprehensiveness and periodicity</td>
<td>Not analytical</td>
</tr>
<tr>
<td>4.3.4 Dealer development</td>
<td>No. of programmes organised</td>
<td>Not on the basis of effectiveness, content</td>
</tr>
</tbody>
</table>
4.3.5 Warehouse monitoring

**No. of visits**

- Counselling not considered.
- Result of the visit not evaluated

**Corrective action:** Area managers firstly warns for more effort and better performance, transfer comes next and retrenchment is not possible.

**Negative approach**

---

5. Behaviour based Evaluation

**Not done**

**Not done**
activity quota and the evaluation with the help of efficiency is also subjective.

2.3 Accounting Techniques in Marketing Control

The accounting techniques applied for input and output control are ratio analysis, budgeting and variance analysis.

Ratios are used for both input and output control. For profitability analysis, Gross and Net Profit to sales ratios are used. As the company is not earning profit so its use for this purpose is limited and not comprehensive. No indepth analysis for different other variables of marketing is applied.

The turnover ratios are used on yearly basis for inventory, average collection period and debtors to sales. They are used at limited scale and not comprehensive for the analysis of product, region or area.

For input control the ratio calculated are mainly advertising, sales promotion, distribution and personal selling to sales. The ratios are not used for sales administration and marketing research to sales. All the above ratios are calculated for yearly analysis with a view to compare them with the previous period ratio. The distribution cost is further analysed for different components in terms of total marketing expenses for industry based comparison. The use of the ratio is not
comprehensive in this organisation. The trend of these ratios have not been set and there is no concept of making a normal year ratio as base for evaluation. The Exhibit 8.6(a) explains the accounting techniques and their application with the comments based on above discussion.

For controlling marketing operations the company uses ratio analysis with varying degree of comprehensiveness. The ratio for sales administration and marketing research are not used whereas there are some expenses for which indepth analysis with the help of ratios are done. The profitability ratio is used in limited sense where the turnover ratios are for the corporate and not for product and other variables.

Budgeting has been widely used in this company for input and output control. For output control the sales budgets are prepared with their product and market break up for both the seasons. They are comprehensively analysed over the period. Similarly the input budgets for different expense categories like advertising, promotion and publicity and distribution are prepared for one year period and they are comprehensively analysed in this organisation. Personal selling expense budget is prepared for one year period which is evaluated at the corporate level on quarterly basis. Sales administration budget is also prepared on yearly basis and reviewed on quarterly and
### III. ACCOUNTING TECHNIQUES FOR MARKETING CONTROL

<table>
<thead>
<tr>
<th>TYPES OF TECHNIQUES</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. RATIO ANALYSIS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1.1 Profitability ratio</strong></td>
<td>GP to sales, NP to Sales</td>
<td>Limited use, annual, cost allocation difficult, no in-depth analysis, no trend</td>
</tr>
<tr>
<td><strong>1.2 Turnover ratio</strong></td>
<td>Inventory Turnover, debtors to sales average collection period, yearly, comparison with previous year ratio</td>
<td>Not for other variables, limited use, no normal base</td>
</tr>
<tr>
<td><strong>1.3.1 Advertising expense to Sales ratio</strong></td>
<td>Yearly analysis, media and agency charges not analysed, past period comparison</td>
<td>Not comprehensive</td>
</tr>
<tr>
<td><strong>1.3.2 Sales promotion ratio to Sales ratio</strong></td>
<td>Yearly, previous period comparison</td>
<td>No seasonal analysis, it is not comprehensive</td>
</tr>
<tr>
<td><strong>1.4 Distribution to Marketing Cost ratio</strong></td>
<td>Yearly for components, for industry based comparison</td>
<td>Not product or seasonal analysis, not comprehensive</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DISTRIBUTION expense Yearly ratio compared with to Salos Ratio previous data</strong></td>
<td>Not used comprehensively</td>
<td></td>
</tr>
<tr>
<td><strong>1.5 Personal selling expense to Sales ratio</strong></td>
<td>Annual, previous year comparison</td>
<td>Not comprehensive</td>
</tr>
<tr>
<td><strong>1.6 Sales administration expense to sales ratio</strong></td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td><strong>1.7 Marketing Research expense to Sales ratio</strong></td>
<td></td>
<td>Not applied</td>
</tr>
</tbody>
</table>
half-yearly basis. Marketing Research budget is not prepared.

The variance analysis for output control is used at limited scale as the volume variance is the only indicator of actual and budgeted performance difference. The price and mix variances are not used as the price changes of the products have not taken place in the past period. For input control, the variances of actual from the budgets are calculated for mid-period review and control. The favourable and adverse variances are calculated for reporting purposes. Responsibility centre concept has not been adopted by this company for control of marketing operations except at the Marketing Division which is considered as Revenue Centre. The Regional or Area offices are not evaluated on this basis.

The Exhibit 8.6(b) fairly explains the application of budget in Marketing control in this company. For controlling output, sales budgets are prepared and monitored whereas for all the items of marketing expenses the separate budgets are prepared. The expenses are evaluated mainly with the help of budgets and the variances are calculated. The variance analysis is used on limited scale. For output it is only volume variance which is calculated. The responsibility centre based appraisal is not applied in this organisation.
## EXHIBIT 8.6 (b)

ACCOUNTING TECHNIQUES IN MARKETING CONTROL IN HFC

<table>
<thead>
<tr>
<th>TYPES OF TECHNIQUES</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. BUDGETING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 Sales Budget</td>
<td>Volume, value, monthly to yearly seasonal and product-wise</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>2.2.1 Advertising budget</td>
<td>Annual, No mid-year review of expenses. Supplemented with ratio</td>
<td>Not comprehensive</td>
</tr>
<tr>
<td>2.2.2 Promotion and Publicity budget</td>
<td>Prepared yearly, broken for seasons, Monthly report of progress during the season.</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>3.3 Distribution budgets</td>
<td>Mode of transport-wise. Yearly preparation. Mid-term review, No quarterly review</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>3.4 Personal Selling Budget</td>
<td>Yearly prepared with all component, quarterly review</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>3.5 Sales administration Budget</td>
<td>Yearly prepared, Quarterly reviewed</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>3.6 Marketing Research Budget</td>
<td>Not prepared</td>
<td>Not applied</td>
</tr>
<tr>
<td>4. VARIANCE ANALYSIS</td>
<td>Volume variance, No price or Mix variance, Favourable and unfavourable variances for budgeted expenses</td>
<td>Limited use, Comprehensive</td>
</tr>
<tr>
<td>5. RESPONSIBILITY CENTRE</td>
<td>No responsibility centre for evaluation of division, Region etc.</td>
<td>Not applied</td>
</tr>
</tbody>
</table>

---
2.4 Marketing Key Variables

IV. The key variable considered sensitive to the marketing control is popularisation of products in Assam and other north-Eastern States. The other input variables important to the organisation are guaranteed supply, cost reduction, quality, weight, packaging and transportation. The output variable is customer satisfaction. The input variables occupy priority position than the output variables.

3. ANALYSIS AND INTERPRETATION OF NFL CASE

The discussion of marketing control systems applied in NFL reveals some facts which are analysed and interpreted critically.

In the backdrop of the analysis, it is to be kept in view that NFL is a profit making company having its plants in the agriculturally developed zone of Panjab and Haryana for which it is enjoying the status of lead fertiliser supplier. These two conditions are positive for earning profit and application of control systems differently.

3.1 Marketing Control Practices

All the four types of control have been applied by the company with varying degree of comprehensiveness.

The Sales analysis is comprehensive in terms of period, territories and product, the reporting pattern is systematic and frequent meetings are held except at GM
(Marketing) level which is not held on regular basis even during cropping seasons. The cause for this irregular meeting is due to its zonal meeting, which is monthly and regular. Zones which have been created for the purpose of co-ordination of Regional and Area Offices ease the burden of Marketing Division. The financial reporting delays are also there in this organisation.

The market share is analysed on yearly basis for the allocated market. Mid-term analysis of share is difficult as the data related with industry are not available for shorter period. The overall market share and relative market share analysis are not considered important. The action initiative to counter the competitors and to gear the marketing network is comprehensive. The trend of shares have not been considered for long period evaluation.

The attitude of customers is made known to the company from their field staff and from the customers complaint and suggestions. The viability of the suggestions are analysed in zonal and divisional meetings on the basis of financial implications. The customer surveys are also conducted irregularly. Customer opinion for promotion efficiency evaluation is taken but not for other aspects of marketing. The customer panel discussion to have the ideas of different customers is not adopted.
The profitability analysis adopted by the company is comprehensive in terms of its coverage but the bases for allocation of cost to the respective area of analysis are neither clear nor scientific. The corrective action for profitability control is multi-dimensional in nature but it has stronger element of future planning than current period adjustments.

The company analyses efficiency of sales promotion and distribution. The advertising efficiency is analysed by the marketing research section of the company on the basis of awareness. No outside agency is involved in this evaluation which retains some amount of biasness of judgement.

The Sales promotion evaluation is more comprehensive as the types of programmes are based on the type of zones like developed, underdeveloped and semi-developed. The evaluation is by the internal staff and no outside agency is involved for this purpose. The programme change can be in any direction.

The channel efficiency is analysed on the basis of lifting of fertilisers by a particular channel. The evaluation is comprehensive in terms of periodicity but its application is limited for comparison of two channels efficiency only. The transport efficiency is analysed in this company for both railways and roadways separately.
The analysis is comprehensive in terms of periodicity and the corrective action is easier in case of road transport than the railways.

The company claims to have adopted marketing audit concept for strategic control. It was undertaken five years ago. The facts of the case reveals that only task environment had been audited comprehensively and other components of the environment and systems were not adopted for auditing purposes. This audit can not be said as systematic and comprehensive.

The above mentioned explanation and the Exhibit 8.7 indicate that the company is utilising all types of control for its marketing affairs. But only some of the control systems have been utilised exhaustively like Sales analysis, market-share analysis, profitability and efficiency analysis. The strategic control still could not get a headway in this organisation.

3.2 Salesforce Control Systems

For Salesforce control, the company has adopted the concept of territories on geographical basis. One or more districts form a territory and the potential of the area is not considered for market cultivation.

For individual field officers, sales volume quota are set for seasons and the evaluation system is quite comprehensive. It is in line with the sales analysis as
### EXHIBIT 8.7

MARKETING CONTROL PRACTICES IN NFL

<table>
<thead>
<tr>
<th>TYPES OF MARKETING CONTROL</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. ANNUAL PLAN CONTROL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Sales Analysis</td>
<td>Monthly-Yearly analysis for product and region, Bottom-up reporting.</td>
<td>Comprehensive in terms of period of analysis</td>
</tr>
<tr>
<td></td>
<td>Three level meeting monitoring, Zonal meeting regular.</td>
<td>QM (Marketing) meeting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Irregular</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Financial reporting delay</td>
</tr>
<tr>
<td>1.2 Market Share Analysis</td>
<td>Yearly analysis, allocated market, FAI report, Not for mid-term review</td>
<td>No relative market share</td>
</tr>
<tr>
<td></td>
<td>analysis of competitors, gearing of marketing network, Futuristic In action</td>
<td>Comprehensive corrective action, No trend, No current period control</td>
</tr>
<tr>
<td>1.3 Customer attitude</td>
<td>Complaint and Suggestion, Irregular, comprehensive customer survey,</td>
<td>No customer panel discussion</td>
</tr>
<tr>
<td>tracking</td>
<td>Discussion in Zonal and Division meeting</td>
<td></td>
</tr>
<tr>
<td><strong>2. PROFITABILITY CONTROL</strong></td>
<td>GP, NP to Sales ratio</td>
<td>Comprehensive</td>
</tr>
<tr>
<td></td>
<td>Regional, seasonal product, Profitability analysis. Arbitrary base of cost</td>
<td>Allocation of cost not scientific</td>
</tr>
<tr>
<td></td>
<td>allocation, Accounts and Marketing Research Section, Cost reduction measures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>adopted, Marketing network improvement</td>
<td></td>
</tr>
<tr>
<td><strong>3. EFFICIENCY CONTROL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.1 Advertising Efficiency</td>
<td>Mid term and after the programme review on awareness basis by</td>
<td>Comprehensive, No agency involvement</td>
</tr>
<tr>
<td></td>
<td>Marketing Research Dept of the Company. Media evaluation, curtailment of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>funds</td>
<td></td>
</tr>
<tr>
<td>3.1.2 Sales promotion</td>
<td>Seasonal and yearly analysis, objective based, field staff</td>
<td>Comprehensive, Systematic application</td>
</tr>
<tr>
<td>efficiency</td>
<td>involvement, discontinue or change of region</td>
<td></td>
</tr>
<tr>
<td>3.2.1 Channel efficiency</td>
<td>Quarterly through yearly analysis on the basis of lifting of Fertilisers, previous year comparison base, Area analysis</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>3.2.2 Transportation efficiency</td>
<td>Monthly through yearly evaluation, separate evaluation for rail and road, plants provide information</td>
<td>Railway monitoring</td>
</tr>
<tr>
<td>4. STRATEGIC CONTROL</td>
<td>Task environment audit, Not undertaken since long</td>
<td>Not comprehensive, Systematic &amp; regular audit</td>
</tr>
</tbody>
</table>
the Field Officers report the sales to the Area Managers and then it passes upto Marketing Division. The corrective action is normally in case of not proper performance. Thus, no incentive is provided for better performance and the transfer is made to other area or territory if one continues to perform badly. The company has not adopted the concept of activity quotas which has adverse effect on the performance appraisal of the Field Officers.

The sales budgets for controlling field officers are prepared with Sales volume and expenses. Both are monitored periodically but there is no link between expenses to be incurred and the revenue to be generated. The period for review of expenses at Regional level have not been specified.

The calls to be made on the dealers and farmers are not determined by the Regional or Area Managers for the field officers and their evaluation is not made with the help of calls. It has got adverse impact on the proper evaluation and control of field officers responsibilities.

The efficiency of field officer is analysed with the help of personal selling expenses to the sales of the territory on seasonal basis. They are compared with the previous period ratio. But the trend of the ratio is neither set nor a normal base year ratio is taken for evaluation. The role of Field officers in promotional programmes are evaluated on subjective basis of effective
participation. The evaluation is not regular and the standard of evaluation is not determined. The credit collection is not backed by any standard of evaluation. The ratio between collection and credit sales of two years are compared. The trend setting of the ratios or selection of some base year for evaluation is not being considered.

The field officers have to send their weekly reports to the Area Manager. The reports are evaluated on the basis of periodicity and content comprehensiveness, which is subjective in nature. The approach of analytical presentation is not being considered for evaluation of the reports.

The dealer development responsibilities are analysed on the basis of number of programmes organised, but the content and effectiveness of the programmes are not evaluated. Similarly, the number of visits made to the warehouse is considered for evaluation and not the result of his visit in terms of counselling, reporting, monitoring etc. The standards are not fixed in terms of period like month, season etc.

The behaviour based evaluation is not applied by the company for controlling controlling Field officers. Without the initiative of the company, on the basis of complaint and suggestions of the dealer and farmers, their
behaviour in the field is known. But the company has got no monitoring mechanism in this respect.

The description of the present system and comment in that respect as shown in Exhibit 8.8 gives the idea that the company uses many types of control mechanisms for the field officers' operations but there are some more pertinent, techniques which are not at all used presently like activity quota and efficiency analysis with the help of calls. The territories setting is also not scientific. The field officers' motivation can hardly be kept high under the present condition of no incentive approach. Monitoring of responsibilities in absence of call schedule and activity quota is difficult. Behaviour based evaluation and control has not been applied in true sense in this organisation.

3.3 Accounting Techniques for Marketing Control

The Exhibit 8.9 (a) and (b) describe the types of accounting techniques applied in the control of marketing affairs of NFL. The company has adopted ratio analysis, budgeting, variance analysis and responsibility accounting for their application in different types of control of marketing affairs. Profitability and turnover ratios are used for output control. The profitability ratio is used comprehensively for the products and seasons. The mid-year profitability analysis is giving the benefit of corrective
## EXHIBIT 8.8

SALESFORCE CONTROL SYSTEM IN NFL

<table>
<thead>
<tr>
<th>TYPES OF SALESFORCE CONTROL</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Territories</td>
<td>Districts or combination of districts, geographical basis</td>
<td>Potential not considered</td>
</tr>
<tr>
<td>2. Quota</td>
<td>Product-wise, seasonal sales volume quota, weekly reporting of performance, monthly meeting monitoring, no incentive for better performance, transfer posting</td>
<td>No activity or combination quota, Corrective action negative, Comprehensive</td>
</tr>
<tr>
<td>3. Sales Budget</td>
<td>Sales and salesforce expenses, Top-down revenue determination, Bottom-up expense planning, product-wise, seasonal revenue determination</td>
<td>No specified periodic review by Regional office, Expenses not linked with quota/sales</td>
</tr>
<tr>
<td>4. Salesforce Efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1 Sales calls</td>
<td>No call planning, no control with the help of calls</td>
<td>Adverse impact on the evaluation of responsibility</td>
</tr>
<tr>
<td>4.2 Salesforce expense to Sales analysis</td>
<td>Seasonal evaluation with the help of ratio, previous period comparison</td>
<td>Not comprehensive in terms of period, No normal base year for comparison No trend setting</td>
</tr>
<tr>
<td>5.3 Responsibilities evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3.1 Collection Efficiency</td>
<td>Effective participation in promotion programmes</td>
<td>No standard, Subjective evaluation, Not regular</td>
</tr>
<tr>
<td>4.3.2 Credit collection</td>
<td>Ratio between credit sales and collection, seasonal analysis, mid-term review</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>4.3.3 Reporting</td>
<td>Comprehensiveness and regularity warning if not comprehensive</td>
<td>Not analytical basis</td>
</tr>
<tr>
<td>4.3.4 Dealer development</td>
<td>Number of programmes organised</td>
<td>No effectiveness or content of the programme is analysed</td>
</tr>
</tbody>
</table>
### 4.3.5 Warehouse Monitoring

<table>
<thead>
<tr>
<th>Number of visits made to the warehouses</th>
<th>No standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result of the visit not considered</td>
<td></td>
</tr>
<tr>
<td>Counselling not considered</td>
<td></td>
</tr>
</tbody>
</table>

Corrective action: If the Field Officers are not performing properly, first of all warning is given, next is the transfer request by the Area Manager, Retrenchment is not possible.

### 5. Behaviour based evaluation

Not adopted at the initiative of the company but known through the complaints of dealers and farmers

Not a basis of evaluation for control
# Accounting Techniques in Marketing Control in NFL

## Types of Techniques

<table>
<thead>
<tr>
<th>Types of Techniques</th>
<th>Description</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. RATIO ANALYSIS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Profitability Ratio</td>
<td>GP to Sales, NP to Sales, For profitability analysis on product-wise seasonal and yearly basis</td>
<td>Comprehensive, Not regional and zonal</td>
</tr>
<tr>
<td>1.2 Turnover ratio</td>
<td>Inventory Turnover, Debtors to Sales, Average collection period, Analysis on Company, Area, Regional and seasonal basis.</td>
<td>Comprehensive, No trend, No normal year as base, Limited use in current period control.</td>
</tr>
<tr>
<td>1.3 Advertising expense to Sales ratio</td>
<td>Yearly analysis, Media cost and campaign cost to advertising cost also, previous year comparison</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>1.3.2 Sales promotion to Sales ratio</td>
<td>Yearly and seasonal evaluation Individual expenses to sales promotion ratio on regular basis</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>1.4 Distribution cost to Sales ratio</td>
<td>Product-wise, yearly evaluation, Individual component to total marketing cost ratio, seasonal and yearly analysis for industry comparison</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>1.5 Personal selling expense to Sales ratio</td>
<td>Yearly analysis, comparison with previous data, future period control</td>
<td>Not comprehensive, No individual expenses analysed</td>
</tr>
<tr>
<td>1.6 Sales administration expense to Sales ratio</td>
<td>Area, Regional, Zonal analysis on annual basis, previous year comparison</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>1.7 Marketing Research expense to Sales Ratio</td>
<td>Yearly analysis, compared with previous period ratio</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>TYPES OF TECHNIQUES</td>
<td>DESCRIPTION</td>
<td>COMMENTS</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------</td>
<td>----------</td>
</tr>
<tr>
<td><strong>2. BUDGETING</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 <strong>Sales Budget</strong></td>
<td>Volume and value, product-wise, Monthly-Yearly monitoring, Regional and Zonal analysis</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>2.2.1 <strong>Advertising budget</strong></td>
<td>Mid-period review of expenses for current period cost control</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>2.2.2 <strong>Sales promotion budget</strong></td>
<td>Seasonal, Regional and Area analysis</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>2.3 <strong>Distribution Budget</strong></td>
<td>Seasonal, product-wise prepared evaluation is mode-wise, component-wise and monthly.</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>2.4 <strong>Personal selling budget</strong></td>
<td>Monthly-Yearly evaluation</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>2.5 <strong>Sales administration Budget</strong></td>
<td>Yearly determined for Regional and Area office, Quarterly review</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>2.6 <strong>Marketing Research Budget</strong></td>
<td>Mid-year review</td>
<td>Not comprehensive</td>
</tr>
<tr>
<td><strong>3. VARIANCE ANALYSIS</strong></td>
<td>Volume variances for Regional and Area Offices also. No price or mix variance. Favourable and unfavourable variance for cost control.</td>
<td>Limited use, Comprehensive</td>
</tr>
<tr>
<td><strong>4. RESPONSIBILITY CENTRE</strong></td>
<td>Revenue responsibility centre for Division, others not evaluated on responsibility centre</td>
<td>No profit centre basis of evaluation</td>
</tr>
</tbody>
</table>
action during that year. But the company has not considered the Regional and Zonal profitability. The turnover ratios are used to analyse the management of inventories, debt collection and the magnitude of debts to total sales for different products, seasons and segments. Their use is comprehensive in this company, but the trend of ratios have not been set, a base of normal year performance has not been determined for evaluation purposes.

For cost control, there is wider application of ratios. They are calculated in terms of sales. For indepth analysis of distribution cost, the individual component's ratios are also calculated in terms of total marketing cost. The other elements of input for which ratios are calculated in this company are advertising, sales promotion, sales administration and marketing research. The application of these ratios is comprehensive in this organisation. They are compared with the previous period ratio and the trend setting of ratios is not there. The personal selling expense to Sales ratio is used but the indepth analysis of individual expenses to total personal selling expense is not considered. These ratios are not basic for control of marketing expenses but are supplementary to the budgetary control. If the analysis is for more variables, the current period control is possible.
The output and input in marketing are controlled with the help of budgets. They form the main document for evaluation and monitoring of revenue and costs. The sales budget are set and the help of that budget is taken for sales analysis along with the determination of standard of performance for lower organisational level.

For cost control, the important budgets prepared and monitored are promotion, distribution, personal selling, sales administration, and market research budgets. The expenses are marked on yearly basis but they are reviewed periodically. As the budgets are the main documents for current period control, so the evaluation of performance is monthly to mid-term reviews depending upon the nature of job and their budgets for current period control. All the aforementioned budgets are comprehensively analysed and administered except the marketing research budget which is reviewed on half-yearly basis.

The variance analysis is used for both output and input control. For output control, only the volume variance is considered and the price and mix variances are not used. To control cost, the variances between budgeted expense and actual expenses are taken. The favourable and adverse variances are calculated. The ratio between actual expense and the budgeted expenses are also considered. The concept of responsibility centre has been applied upto marketing division only, which is treated as revenue
centre. Zonal and Regional offices are not evaluated on the basis of responsibility centre.

The above discussion gives the idea that the ratio analysis and budgetary control in this organisation are widely applicable. They are in general, comprehensively used for past period comparison, current period control and future planning. The use of variance analysis for determination of favourable and unfavourable conditions is indepth for cost control. Its use is limited for output control simply because the price changes are not taking place in this industry on frequent basis.

3.4 Marketing Key Variables

The key variables for control are clear to the executives. Depending upon the nature of performance and stated objectives of the organisation as a whole, the most sensitive key variable identified is "Sales and cost control". This fits into the frame of their stated objective and the control system adopted for measuring, evaluating and correcting deviation from stated standards. The input variables are quality and weight, ensured supply and proper packaging and transportation where the output variables are market leadership, awareness about fertiliser and customer satisfaction. The output variables are occupying priority position than input variables.
4. ANALYSIS AND INTERPRETATION OF PPCL CASE

Two important features distinguishing the case of PPCL from other organisations under study which should be kept in mind are:

(i) that PPCL is an old profit making mining company, though it has entered in the manufacture and marketing of fertilisers in recent times; and

(ii) there are many product items in the line of phosphatic fertilisers but no one product is dominating as in other concerns of the industry.

4.1 Marketing Control Practices

The company uses all types of control except strategic control. Sales analysis and market share analysis are undertaken for controlling the marketing affairs but the company does not analyse the attitude of customers on regular basis for the purpose of control.

The sales analysis is based on the sales budget. The reports are provided by the Sales Officers and Finance Deptt. for the purpose. In terms of monitoring for control, the zones are engaged more actively than the Division. This is due to the fact that the allocations to the company are on larger geographical area and additional hierarchy has been created to ease the burden of marketing Division. Upto the zones, meeting monitoring is applied and it is
comprehensive. Alternate month meeting of the Division is not sufficient for corrective action purposes.

The market share analysis is for the allocated markets. The company considers the zonal shares on annual basis also. Being a new entrant its share is less but increasing over the years. The good sign of performance throughout its short span of operation has not provided any opportunity to think for any corrective action except keeping the pace as normal. No relative share with other public sector is calculated.

Complaints and suggestion system work for gauging the attitude of customers for control. There is no initiative from the company to survey the customers or to have customer panel discussion. In near future, the company plans for taking help of advertising agency for this purpose.

The company analyses profitability of its products. The analysis is comprehensive in terms of periodicity and segments. The channel and area profitabilities are not analysed. The cost allocation is not scientific and contains some elements of arbitrariness.

The efficiency analysis has been conducted for advertisement by the advertising agency in some districts of north zone. The result of advertisement was found to be positive. But the analysis was for limited area and
limited media. Similarly, limited number of extension and publicity programmes have been evaluated for efficiency analysis. The review was done after the programme and on irregular basis by an outside agency. Its scope of control is limited as no mid-term review is done.

The distribution efficiency for the channel is comprehensive and the informations are provided from the Area Manager. The efficiency evaluation of transportation is subjective in nature as the base is to make the fertiliser available in the market and there is no quantitative standard for the transports. The monitoring of railways and road transport are done separately. Railway monitoring is comparatively difficult than the roadways. The marketing audit for strategic control has not been adopted as the executives claim that after proper evaluation of the environment they have entered into this business and presently there is no need for this effort.

Exhibit 8.10 indicates that the company is using most of the methods of control but some methods of analysis which have been applied for control are not comprehensively used. Some of the areas require more detailed analysis like customers attitude tracking.

4.2 Salesforce Control Systems

For controlling the efforts of sales officers, territories are designed on the basis of combination of
### EXHIBIT 8.10

**MARKETING CONTROL PRACTICES IN PPCL**

<table>
<thead>
<tr>
<th>TYPES OF MARKETING CONTROL</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. ANNUAL PLAN CONTROL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Sales Analysis</td>
<td>Alternate month analysis at Divisional level; Bottom up reporting Product and regional break-up; Zonal meeting monthly.</td>
<td>GM (Marketing) meeting not frequent. Comprehensive for other variables.</td>
</tr>
<tr>
<td>1.2 Market Share analysis</td>
<td>Annual analysis, allocated market, zonal shares also analysed, FAI and Ministry data.</td>
<td>No relative share.</td>
</tr>
<tr>
<td>1.3 Customer attitude tracking</td>
<td>Complaint and suggestions</td>
<td>No initiative of the company. No marketing research activities</td>
</tr>
<tr>
<td><strong>2. PROFITABILITY CONTROL</strong></td>
<td>GP, NP to Sales, seasonal and annual analysis of product, upto state and not upto Area level, Arbitrary base, tonning of marketing network.</td>
<td>No channel profitability. Cost allocation not scientific</td>
</tr>
<tr>
<td><strong>3. EFFICIENCY CONTROL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.1 Advertising efficiency</td>
<td>Only for print media in some districts of North zone, by advertising agency, awareness basis of evaluation.</td>
<td>Only once, Limited Area, Limited media.</td>
</tr>
<tr>
<td>3.1.2 Sales promotion efficiency</td>
<td>Limited programmes analysed by the outside agency, awareness base</td>
<td>Limited in scope, Irregular, No mid-programme review.</td>
</tr>
<tr>
<td>3.2.1 Channel efficiency</td>
<td>Monthly - yearly analysis of one channel over the other, off-take basis, Area Manager information</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>3.2.2 Transportation efficiency</td>
<td>Monthly review of roadways and railways separately, availability at destination basis, payment delay for roadways.</td>
<td>Railway monitoring difficult than roadways, comprehensive</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>4. STRATEGIC CONTROL</td>
<td>Environment audit conducted before entering into the market</td>
<td>No systematic and comprehensive audit</td>
</tr>
</tbody>
</table>
districts. A large geographical area is assigned without consideration of potential of the area.

The sales volume quota are set and monitored comprehensively by the Asstt. Manager (Marketing) who occupies next higher position in hierarchy than the Sales Officer. The activity quotas for Sales officers are not set for the control of responsibilities. The corrective action is more negative than positive as non-performance upto the standard leads to issue of warning letter but for better performance there is no incentive.

The sales budgets are prepared alongwith revenue and expenses. The revenue is monitored at Asstt. Manager level and expenses at Area Manager level on quarterly basis, for current period corrective action. Personal selling expenses and sales administration expenses are merged together.

The efficiency analysis is also not very effective. Sales calls have not been adopted by the company to analyse the effectiveness of sales officers. The efficiency with the help of cost and revenue is not adopted and the ratio of personal selling expense to sales for Sales Officers are also not calculated.

The role of Sales Officers in promotion programmes are analysed with the help of subjective indicator of active participation in organising and monitoring those
programmes. The number of programmes to be organised are not specified for a particular period.

Though credit collection in this company is reviewed on monthly basis but there is no system of fixing some standard for credit collection during a particular period.

Periodicity is the condition for evaluating the reports of the Sales Officers. Periodicity gives the idea of clear cut objective standard but the executives do not pay attention on the comprehensiveness of the report and its analytical content.

Efficiency in dealer development programmes is evaluated on the basis of number of programmes organised and not on the basis of content of the programme, its effectiveness in terms of creating awareness about different aspects of fertiliser marketing etc. The warehousing monitoring evaluation is not done by the company.

The behaviour based evaluation on the basis of resourcefulness, co-operativeness is not done in this company at its own initiative but through the complaint and suggestions of dealers and farmers. However, this does not form the basis of monitoring and control.

The above discussion and the Exhibit 8.11 give the idea that the concept of territories has been adopted but the base of determination is predominantly geographical.
# Salesforce Control Systems in PPCL

## Types of Salesforce Control

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Territories</td>
<td>Combination of administrative districts, geographical basis</td>
<td>No, one district one sales officer, not based on potential</td>
</tr>
<tr>
<td>2. Quota</td>
<td>Productwise, seasonal quota, based on sales volume, weekly reporting of performance, meeting monitoring by Asst Manager on monthly basis</td>
<td>No activity or combination quota, corrective action negative (expected), comprehensive</td>
</tr>
<tr>
<td>3. Sales Budget</td>
<td>Sales and expenses, monitored by Regional Manager, quarterly review, current period corrective action</td>
<td>Not linked with sales/profit, Sales and administration cost combined</td>
</tr>
<tr>
<td>4. Efficiency Analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1 Sales Calls</td>
<td>No sales call planning, no control with the help of calls</td>
<td>Responsibility evaluation becomes difficult</td>
</tr>
<tr>
<td>4.2 Salesforce Expense to Sales Analysis</td>
<td>Not adopted</td>
<td>Not adopted</td>
</tr>
<tr>
<td>4.3 Responsibilities Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3.1 Promotion Efficiency</td>
<td>Active participation in sales promotion programmes</td>
<td>No standard, subjective</td>
</tr>
<tr>
<td>4.3.2 Collection Efficiency</td>
<td>Monthly review of credit sales and collection ratio</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>4.3.3 Reporting</td>
<td>Regularity of reporting</td>
<td>Not comprehensive, not analytical</td>
</tr>
<tr>
<td>4.3.4 Dealer Development</td>
<td>Number of programmes organised</td>
<td>No effectiveness or other contents of the programme analysed</td>
</tr>
<tr>
<td>4.3.5 Warehouse monitoring</td>
<td>Responsibility has been fixed but no base for control</td>
<td>No control mechanism applied</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td></td>
<td>Corrective action:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Asst Manager (Marketing) gives signal for more active role, transfer order under very bad condition (not applied till now)</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Behavior based evaluation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not adopted by the company but through complaint and suggestions it is known.</td>
<td>Not applied for control</td>
</tr>
</tbody>
</table>
Sales volume quota and budgets are determined but there is no link between expenses and revenue. The major problem in evaluation of responsibilities is that the concept of activity quota has not been adopted. The efficiency analysis with the help of calls is not applied. The reporting is evaluated only on the basis of regularity whereas the methods for controlling the warehouse monitoring has not been adopted. The evaluation on the basis of behaviour of Sales Officers has not been considered.

4.3 Accounting Techniques in Marketing Control:

The accounting techniques used for monitoring control in this company are ratio analysis, budgeting and variance analysis.

The ratio analysis is used for both output and input control. For output control, profitability and turnover ratios are calculated. The use of profitability ratio is comprehensive. The gross and net profits are considered in terms of sales for comparison with previous year ratio. It is used for future planning. In case of turnover ratio, inventory turnover, debt collection period and debtors to sales ratios are calculated. They are used for different break-up like seasonal, quarterly and regional but they are not considered for territory evaluation. The comparison is made with the previous period ratio and no trend of these ratios has been set so far.
In case of input with sales ratio, the company is using it only for two types of expense promotion cost and sales administration. Advertising to sales ratio is calculated on yearly basis and can not be said to be used comprehensively, whereas the sales promotion expenses are analysed comprehensively. As the sales administration expenses are inclusive of personal selling expenses so the analysis of personal selling expenses is not done separately. Sales administration analysis in itself is not comprehensive.

Distribution costs are analysed in terms of total marketing cost to facilitate comparison with industry standard and not in terms of total sales. Marketing research expenses are also not analysed as this activity is not undertaken by the company on such a scale that any analysis is required.

For controlling the input and output, the company uses budgets comprehensively. The sales budget has got wider application in marketing activities and sales analysis. The input budgets are occupying more important place for control than ratio analysis as they are basic for limiting the expenses. The advertising as well as the sales promotion budgets are comprehensively used where the distribution budgets are not prepared for zonal and Regional Sales analysis. Personal selling budget is not
prepared and sales administration costs are monitored on quarterly basis which is comprehensive. Marketing Research budget is not prepared in this organisation as this activity is neither taken at a scale that a separate budget or monitoring is needed.

The use of variance analysis for output control is volume variance. The budgetary control for mid-period review also requires the variance analysis. The positive and negative variances are calculated for the budgeted expenses.

The responsibility centre concept has not been adopted for control of marketing performance for all the organisational levels. Only the Marketing Division has been considered to be a revenue centre. The zones and regions are not evaluated on the pattern of revenue centre concept.

The above discussion and the Exhibit 8.12 (a and b) show that the application of accounting techniques in this organisation are wider in scope. The ratio analysis as it is supplementary to the budgets are used only for two expenses. But the budgets are used for input and output control. The budgets the variances are calculated in terms of their favourableness and unfavourableness. The concept of responsibility centre accounting has not been applied upto the down level.
### EXHIBIT 8.12 (a)

#### ACCOUNTING TECHNIQUES IN MARKETING CONTROL IN PPCL

<table>
<thead>
<tr>
<th>TYPES OF TECHNIQUES</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. RATIO ANALYSIS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Profitability Ratio</td>
<td>Gross Profit to Sales ratio, Net Profit to Sales ratio, For profitability analysis on product, Regional, seasonal and yearly basis.</td>
<td>Comprehensive, Not zonal profitability</td>
</tr>
<tr>
<td>1.2 Turnover ratio</td>
<td>Inventory Turnover Debtors to Sales, Average collection period, Seasonal and annual analysis for all (except debt collection which is on quarterly basis), comparison with previous period.</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>1.3.1 Advertising expense to Sales Ratio</td>
<td>Yearly analysis, comparison with previous period ratio</td>
<td>Not comprehensive</td>
</tr>
<tr>
<td>1.3.2 Sales promotion expense to Sales ratio</td>
<td>Seasonal and yearly, separate programme cost to total cost of sales promotion</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>1.4 Distribution cost to Sales Ratio</td>
<td>Not in relation to sales but as individual component of distribution cost to total marketing cost. Seasonal and annual analysis for industry comparison.</td>
<td>Comprehensive for one component</td>
</tr>
<tr>
<td>1.5 Personal selling expense to Sales Ratio</td>
<td>Not calculated</td>
<td>Not calculated</td>
</tr>
<tr>
<td>1.6 Sales Administration expense to Sales ratio</td>
<td>Yearly analysis for zonal and state offices (includes personal selling expenses)</td>
<td>Not comprehensive</td>
</tr>
<tr>
<td>1.7 Marketing Research expense to Sales ratio</td>
<td>Not calculated</td>
<td>Not applied</td>
</tr>
</tbody>
</table>
### EXHIBIT 8.12 (b)

**ACCOUNTING TECHNIQUES IN MARKETING CONTROL IN PPCL**

<table>
<thead>
<tr>
<th>TYPES OF TECHNIQUES</th>
<th>DESCRIPTION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. BUDGETING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 Sales Budget</td>
<td>Value, volume, seasonal, yearly and product-wise, segment-wise, determined widely used.</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>2.2.1 Advertising Budget</td>
<td>Mid-period review, agency and media charges basic component</td>
<td>Not comprehensive</td>
</tr>
<tr>
<td>2.2.2 Sales promotion budget</td>
<td>Yearly determined, mid-term review as per programme, zonal and state analysis.</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>2.3 Distribution budget</td>
<td>Quarterly review, mode-wise and component-wise</td>
<td>Not regional-zonal budget Comprehensive</td>
</tr>
<tr>
<td>2.4 Personal selling Budget</td>
<td>Not prepared (expenses included in Sales administration)</td>
<td>Not prepared</td>
</tr>
<tr>
<td>2.5 Sales Administration Budget</td>
<td>Yearly prepared for Zones, State, Quarterly review</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>2.6 Marketing Research Budget</td>
<td>Not prepared</td>
<td>Not prepared</td>
</tr>
<tr>
<td>3. VARIANCE ANALYSIS</td>
<td>Volume variance. Favourable and unfavourable variances for input control.</td>
<td>Not Comprehensive</td>
</tr>
<tr>
<td>4. RESPONSIBILITY CENTRE</td>
<td>Marketing Division as Revenue Centre, others not evaluated on responsibility centre basis</td>
<td>Not profit centre basis for evaluation</td>
</tr>
</tbody>
</table>
4.4 Marketing Key Variables

The key variable sensitive to the objective of the organisation is the awareness about its brand. The executives consider that as awareness is lacking among farmers and if the product is popularised properly, the company can generate resources for growth and prosperity. The other variables of importance and priority are mainly input variables like ensured supply, quality and weight, sales and cost control and proper packaging. They consider that customer satisfaction is also important which is an indicator of output variable.
Application of Marketing Control System in fertiliser industry is analysed in this section to have the idea as to how the industry has adopted the different control systems.

I. MARKETING CONTROL PRACTICES

Annual Plan Control is being applied by the industry with the help of sales analysis, market share analysis, and customers attitude tracking studies.

The sales analysis is comprehensively used in all the companies under study. The targets are set at GM (Marketing) level for both the seasons for the products for allocated regions. The period of analysis is monthly through which the sales are analysed quarterly, seasonally and annually. The other variables like product and region are also taken into account by all the companies. The reporting pattern is bottom-up i.e. from sales persons through the Marketing Division. The condition is almost similar for all the companies except that company which has recently entered into fertiliser marketing where the meetings at G.M. (Marketing) level take place for sales review in alternate months. The monitoring is done with
the help of regular meeting at regional level. Wherever the zones have been created, the divisional meetings are less frequent. The irregularity in holding meetings are mostly found in case of divisions but not in regions. One problem widely faced by the companies is financial reporting delay which increases the time lag between periods to be evaluated. However, Sales analysis is widely and comprehensively applied for marketing control in this industry. This is also a fact that limited scope of corrective action exists in terms of change of product season or region etc.

The other method of analysis for control is the market share, which is an important indicator of relative performance in the industry. Annually they are analysed based on FAI data. But the variation in use of types of shares is evident. Allocated market shares are mostly used than the relative market shares and there is no application of overall market share analysis. Some companies are using both allocated and relative market share. More use of allocated market share is due to the fact that the markets are regulated by the government with the help of ECA allocation. The corrective action based on market share takes place in the coming period and it is comprehensive. The main areas emphasised is are distribution network, salesforce and promotion system. The comparison of the shares are from previous year and there is no trend setting
of the shares over different periods. Similarly no company considers any normal year as base for the comparison of market share. Every year is not a normal year for the company and its importance has yet not been realised.

The study of customers attitude for control of marketing affairs is not undertaken by the companies at their initiative. Only complaint and suggestions systems are encouraged and applied by almost all the companies under study and they evaluate the ideas put forward by the farmers and dealers in their meetings. The complaints and suggestions are mostly of short term nature and given without considering the financial implications to the company. The companies which are profit earning spare some resources for the study of customer but it is not a common feature. Analysis of customers attitude to evaluate promotional efforts are used by the field staff for resource and region reallocation. But they are not for all variables. Customers panel discussions on the nature of product and marketing of fertilisers by the companies are not held.

Profitability is controlled with the help of ratio of gross as well as net profits to sales on yearly basis. The companies which are not able to earn profit do not analyse their negative profitability any further. Product, regional or seasonal profitability is also not analysed in
these companies. Scope of product profitability has been made limited due to over dominance of one product in the total product mix. Where the number of products are more and one product is not dominating, individual product profitability is analysed. The regional profitability is not used as the market can not be changed based on non-profitability. Wherever, the comprehensive use of profitability is there, the base of allocation of cost is arbitrary. The efficiency of advertising is analysed by the marketing department after the advertising campaign is over on the basis of awareness of customer due to advertising. No outside agency is involved for this analysis. The evaluation is also not regular. The companies which are more conscious about their sales and customer awareness use it comprehensively.

The sales promotion programmes adopted by the industry are varied and most of the companies evaluate these programmes when they are going on and the corrective action is in the form of change of resources for the same programme either to the other region or to the other season but in the same region. The element of biasness is not ruled out as the field staff evaluate these programmes. The nature of these programs are such that they are easily evaluated on comparative basis and if not found suitable, are changed. Very few companies use outside agency for evaluation.
For distribution, efficiency analysis, channel and transportation are separately evaluated. Analysis is on the basis of lifting of fertiliser through the channels — private and institutional. There is diversity in periodicity of analysis. Most of the companies analyse them on monthly basis where few are using their analysis on quarterly basis. In most of the companies, plants provide information to the marketing division but in some cases the regional offices inform them. Indepth analysis on the basis of area and region are in limited use because of the fact that about half of the total sale is made by one channel and half by the other.

The transport efficiency is analysed with the help of movement of fertilisers by railways and roadways separately. The periodicity of analysis varies from monthly to seasonal. The companies earning profit are using it on monthly basis. The evaluation is mostly comprehensive but monitoring and control vary among the two transportation system. All the companies found it easier to monitor roadways by making delayed payment or cancellation of further contract. Before any such decision, external factors are considered like strike, road blockade etc.

The industry has not adopted the concept of marketing audit for strategic control. In some companies audit was
conducted but it was to evaluate the limited areas like task environment or evaluation of competitors. These audits were not conducted by any outside team and regularity in auditing is lacking. For last five years, even such auditing has not been conducted by any company under study. The newly entered company had analysed the environment prior to entry into this business, but after that no analysis has been made. None of the company has adopted the marketing, auditing systematically, periodically and comprehensively.

II. SALESFORCE CONTROL SYSTEMS

The application of salesforce control systems in this industry are varied. In all cases sales persons are placed in sales territories which are designed on the basis of geographical consideration and not potential. Either one district or combination of districts are made sales territories.

Sales volume quotas are set for products for different seasons. The performance of sales is reported to the area managers on weekly basis and the regional managers hold meetings of the salesforce every month. The corrective action to bring performance of salesforce in line in most of the cases is negative. This is the condition throughout the industry.

The sales budgets for salesforce are prepared in all the companies including the items of expenses and revenue
to be generated from the territories where the salespersons are placed. Revenue is reached by converting sales volume quota into monetary units. The request for expenses are initiated at lower level where the sales revenue is determined at the higher level. The budget is comprehensively used by the industry. The review period varies from quarterly to seasonal. The other feature of the budget is that the expenses and revenue are not linked and are determined independently. The cause of this phenomenon is that the sales quotas are based on ECA allocation and there is limited choice left for the company for determination of revenue. Adjustment at the district level and individual level is also limited where the expenses are determined on the basis of company's internal resources and payment pattern. Moreover, there are some items which are more or less fixed like salary which constitutes a major element of personal selling expenses. The sales calls are not used in this industry for evaluation of the salesforce. Neither calls schedules are made nor they are monitored on this basis. This condition is because the industry has not realised its utility. It is true that calls to be made on farmers is not that important due to the nature of product. But similar is not true for the dealers, distributors etc. where the calls are important. In their non-specification, the problem
encountered in general is evaluation of their responsibilities.

The salesforce expense to sales analysis is applied by most of the companies. The evaluation takes place on seasonal basis and it is not comprehensively used by the industry. The comparison is made with the help of previous period data and neither trend of the ratio is set nor any normal year as base is considered.

The evaluation of salesforce for different responsibilities are done on the basis of different indicators. Promotion efficiency is evaluated on the basis of active participation by all the companies. It is a subjective standard and there is no objective base for this purpose. Similarly, collection efficiency is analysed on the basis of ratio between collection and credit sales. The periodicity of this analysis varies widely in the industry. Based on the evaluation, the corrective action adopted is special drive for collection by the salesforce.

Reporting being an important activity and the salesforce are evaluated on the basis of the periodicity and comprehensiveness of the report. They are required to be regular. The analytical content of the report is not considered by the industry. The use of standard format of the report is lacking in general.

The participation of salesforce in dealer development are analysed by all the companies under study on the basis
of number of programmes organised by the salespersons and there is no stress on effectiveness or content of those programmes. There is no planning for the total number of programmes in which a salesperson is to participate. On the basis of number of visits the warehouse monitoring activity is analysed by all the companies. There is no proper standard for evaluation or schedule before hand to clarify the weaknesses in warehouse monitoring.

The basis of evaluation of responsibilities are similar throughout the industry. The nature of industry, product and their marketing are similar so it is more or less same basis of evaluation. The variations are there in case of periodicity of evaluation. When the plans are not quantified or standardised in clear cut terms, subjective evaluation is used which is not without fault. In case of collection efficiency if the trend of collection to credit sales ratio over different quarter or seasons are set it would be easier in evaluation. In case of reporting also, if the environmental changes, attitude of customers, normal and abnormal rainfall, drought, economic condition of the farmer are reported in a format, it will enrich the reporting pattern. The analytical content is equally rather more important than the justifications for low level sale during a period or comprehensiveness of the report.
The corrective action is mostly negative in about all the companies except new entrant which has not taken even a single transfer posting, based on this ground. The incentive provision is lacking and the better performers are not benefitted in terms of promotion etc. On failing in achievement of quota, warning letters are issued or a request by the area manager for transfer of the salesforce is made. Resistance from the salesforce is general in case of transfer due to these factors. Retrenchment is avoided by the management in this industry.

The behaviour based evaluation is not applied by the industry. The behaviour of the salespersons is known through the complaints of the dealers and farmers but not at the initiative of the company. Mostly, the salesforce control system is outcome-based and not behaviour based. The resourcefulness, product knowledge, co-operativeness, which are the assets for the salesforce are not assessed by the industry. These behavioural aspects are helpful in developing good relationship with the dealer and farmers.

III. ACCOUNTING TECHNIQUES IN MARKETING CONTROL

The accounting techniques applied in this industry for marketing control are ratio analysis, budgetary control, variance analysis and responsibility centre accounting.
The types of ratio applied are profitability ratio, turnover ratio and expense to sales ratios. The profitability ratios are applied by all the companies but the intensity of their use varies among different types of companies. Gross Profit to Sales and net profit to sales ratios are used by most of the companies but their breakup for product, region and season are used mostly in profit making companies. Zonal profitability is not analysed due to the consideration of zones having co-ordination functions and the decisions are not made on zonal basis. The trend of these ratios are not set in loss making companies.

In case of turnover ratio, three main ratios are calculated - Inventory turnover, debtors to sales and average collection period on annual basis but their comprehensive use is limited to the profit making companies. The regional and seasonal analysis is done in case of profit making companies but its use is limited in current period control. There is no normal base year for evaluation and the trend of these ratios are also not set in any company.

The ratios are also used for input control. The advertising and sales promotion expenses to sales ratios are used separately by the industry mostly on yearly basis for comparison with past period data. Indepth analysis of
advertising expenses in terms of agency charges or media charges are not undertaken by all the companies. The sales promotion expenses are analysed with the help of sales by all companies but the individual cost of sales promotion methods are not analysed in terms of sales promotion cost by loss making companies.

In case of distribution cost, the two types of ratios are used, one in terms of sales where other for different components of distribution in terms of total marketing cost to facilitate the comparison with industry based data. The second category of ratio is used widely where the former is used on a limited scale. The evaluation is mostly yearly but some companies use it seasonally. Personal selling expenses to sales ratio is widely used by the industry for comparison with previous period data. But its use is not indepth in terms of individual expenses and total personal selling expense in all the companies.

In most of the companies, sales administration to sales ratios are calculated where the personal selling expenses are not analysed separately, they are merged with sales administration and the ratio is applied there also. In general, the use of this ratio is comprehensive. The marketing research to sales ratio is not used widely in this industry as the amount spent on marketing research is meagre.
The ratio of output to sales or the turnover used in this industry match with the control systems applied. Accounting techniques in themselves are not control systems but are the tools for analysis, interpretation, judgement and justifications. The extent of their use depend on the use of the system and their comprehensiveness. The input cost to sales ratios are calculated by all the companies which indicate that the industry analyses the input over output. It further indicates that what percent of the revenue have been spent on a particular activity. The corrective action is generally futuristic whenever if only cost to sales ratios are calculated on yearly basis. If small break-up of cost and revenue or the component of one type of cost ratio is calculated in relation to the total expense in that category, this further magnifies the analysis. If the periodicity of the analysis is increased, the current period monitoring is possible because both are internal data. One more thing is also to be kept in mind that the industry does not take these ratios as basic for current period control but as a supplement. The idea is that wherever budgets are prepared, they become the basic guide for analysis.

The budgets are widely used in this industry for control of input and output. The sales budget denotes the output budget and its application in the industry is
The budgets are prepared in terms of value and volume of products for different seasons, regions and area. This is because of ECA allocations.

Budgetary control is applied for input control also and they are the basic documents for this purpose. Advertising and sales promotion budgets are prepared separately on annual basis and for controlling costs generally mid-period reviews are also made. Seasonal and regional analysis of expenses on sales promotion are usually done by the companies.

The distribution budgets include the expenses on transportation, packaging, handling etc. and they are prepared on yearly basis. Evaluation is mostly on quarterly and seasonal basis. The product-wise evaluation is not undertaken by all the companies but few. It can not be claimed to be comprehensive in nature. Similarly, personal selling budgets are prepared on yearly basis but the periodicity of review varies among companies from monthly to quarterly. The profit making company reviews it on monthly where the new entrant does not prepare the personal selling budget separately but includes the item of expenses on personal selling in sales administration budget.

The sales administration budgets are prepared on yearly basis and are reviewed for regional and area expenses by all the companies on quarterly basis. But the
condition in case of marketing research is quite different. The budgets are not prepared in most of the cases due to the meagre amount of expenses made on research and that too on irregular basis. Those companies which are not preparing it attach the expenses in agency charges and those companies which are preparing, review the budget on half yearly basis.

The nature of budgets prepared and their periodicity of analysis determined the cost consciousness and the type of activities undertaken by the companies. If a particular activity is not being emphasised, the amount spent is meagre or the activity is not undertaken on regular basis, the budgets are not prepared and the expenses to be incurred are attached with some other cost elements. In some cases the logic of division is not found and they are attached with others for example personal selling and marketing research expenses. The newly entrant company does not prepare personal selling budget separately and the marketing research budgets is not prepared at all. This is not with new entrant only but the marketing research budgets are not prepared in most of the companies of the industry. Furthermore, it also signifies that the importance of marketing research has not been recognised.

The application of variance analysis for output control in the industry is limited to volume variance. The
price or mix variances are not calculated. Most of the companies apply this variance analysis for products, regions and seasons separately. This facilitates the current period control. The important variances like price variance and mix variance are not calculated. The factor behind this situation has been the one time price fixation for many years to come. Favourable and unfavourable variances are calculated with the help of budget for controlling costs.

The concept of responsibility centre has not been applied by the industry thoroughly for all the sub-sections of the organisation. In the companies where the concept has been applied, it is limited upto marketing division level which has been considered as the revenue responsibility centre. The other responsibilities like profitability has not been considered in this industry.

IV. MARKETING KEY VARIABLES

The marketing key variables studied in this industry are varying as per their objectives or different types of marketing programmes. The variables sensitive to the organisation are as diverse as - to ensure supply to popularisation of fertilisers to cost and sales control.

The input variables in this industry are cost control, proper packaging and transportation, ensure supply, quality and weight, where the output variables are
market share, customer satisfaction, customer awareness etc. The priority of input and output variables are also not on a pattern in the companies under study.
CHAPTER-IX
FINDINGS AND RECOMMENDATIONS

This chapter concludes the findings of the study based on which some recommendations have been made. The direction for future research is also presented at the end of this chapter. The findings highlighted are related to the objectives of the study as they are stated in Chapter II and analysed and interpreted in Chapter VIII.

1. CONCLUSIONS AND FINDINGS

The findings related with fertiliser industry and marketing of fertilisers in India are given in addition to the findings concerned with the stated objectives to enhance the understanding of marketing of fertilisers in India.

1.1 Findings related with fertiliser Industry

1.1.1 In the long history of 90 years of chemical fertiliser production, the investment and capacity creation have increased in a big way. Total investment which was Rs 65 crores in 1955-56 has gone upto Rs 11,541 crores (more than 177 times) in 1990-91. 145 plants are manufacturing fertilisers of nitrogenous and phosphatic categories. The total installed capacity has reached upto 110 lakh tonnes of fertiliser nutrients which is 44 times more than the
capacity of 1960-61. This country is the fourth largest producer of fertilisers in the world in absolute terms and 80% of consumption of nitrogenous and phosphatic fertilisers are satisfied from domestic production. The capacity utilisation position has improved in recent times and it touched 85% and 93% in nitrogenous and phosphatic categories respectively during 1991-92.

The commonly used feedstocks are natural gas, naphtha and fuel oil. There is a change in feedstock base from naphtha to gas based plants. 42% of the installed nitrogenous capacity is occupied by gas based plants. The coal based plants are quite unsuccessful in this country.

India is the fourth largest consumer of fertilisers in the world and total consumption has increased 20 times during 1952 to 1992. The average per hectare consumption which was merely 0.55 kg in 1950-51 has gone upto 78 kg in 1990-91. The pattern of consumption varies among regions and seasons. Pondicherry, Punjab, Haryana and Andhra Pradesh consume more quantities per hectare than the other states. The types of fertiliser use is narrow in Punjab and Haryana and broad based in Andhra Pradesh and Karnataka. The consumption is more during Rabi than Kharif season.

Though all types of fertilisers are imported but potassic fertiliser requirements are completely met by import due to non-availability of raw material for
production. The total import of fertilisers has been increasing over the years and it is expected to continue in future.

1.1.2. The government has taken keen interest in creation of capacity for fertiliser production in India by its direct investment in these plants. The total investment in public sector plant rose more than 100 times from Rs 60 crores in 1955-56 to Rs 6047 crores in 1990-91. But the share of investment as compared to total investment has come down from 93% to 52% during the same period. More capacities have been created in private and co-operative sectors in recent times. Out of 145 plants, 34 plants are in public sector (25 nitrogenous and 9 phosphatic) which occupy 53% of nitrogenous and 30% of phosphatic capacities and both types of fertilisers taken together constitute 47% of the total industry capacity. Public and co-operative sectors altogether constitute more than 72% of nitrogenous fertiliser production capacity.

The capacity utilisation of public sector as a whole has always been poor but they vary among plants. This sector could achieve production upto 66% of its nitrogenous capacity and 62% of phosphatic capacity during 1991-92 where the co-operative sectors could achieve 112% and 75% respectively during the same period. The low performance is due to old and sick units, unstable power supply,
defective design and equipment, industrial relation problems and feedstock base. This sector has contributed only 41% of nitrogenous and 25% of phosphatic fertiliser production in 1990-91 which indicates the poor production performance of the sector.

The profit contribution of the public sector fertiliser industry as a whole has been negative. There are some companies in this sector which have always given profit and some companies have not shown any profit in last so many decades. The performance of public sector as a whole is unsatisfactory.

1.1.3 More than 20 types of fertilisers are produced in India of which the most popular fertilisers are Urea, DAP, SSP, MoP and CAN etc. Potassic fertilisers are not produced in this country but are imported.

1. The demand of fertilisers is ever increasing and the projection for the turn of this century is of about 400 lakh tonnes. The industry is internally competitive and the products are differentiated on the basis of granules, feedstock applied, use of latest technology, packaging, water solubility etc. and not on the basis of nutrient content. Geographical market segmentation is inbuilt in the system of ECA allocation. The companies prepare marketing strategies at district level for both the seasons.
2. Consumer prices of fertilisers are fixed by the government from time to time and they are equal for all companies, seasons and regions with a variation of local taxes imposed by the state governments. Retention price scheme is applied for different companies based on feedstock, networth and life of the plants. Government pays subsidies to the domestic companies on production and freight and on imported fertilisers to fill the gap between consumer price and production or import cost.

3. For promotion, the companies use advertising and sales promotion methods. Audio, audio-visual and print media are used for promoting fertilisers. More than 35 types of sales promotion programmes are applied by the industry. Some popular programmes (Extension services) are field demonstration, village adoption, kisan melas, minikit distribution, farmers meeting, crop seminars, puppet show, stickers etc. The international and national agencies are involved in promoting the use of fertilisers and about Rs 12 to 14 per tonne is spent on fertiliser promotion.

4. Institutional agencies, co-operative societies and private dealers are engaged in distribution of fertilisers in almost 5.57 lakh villages. Multi-tire and multi-channel system is adopted for distribution and the dealers are free to use multi-brand approach of distribution. The dealers are assigned the job of selling, sales promotion and stock
handling etc. Private dealers dominate the trade with 66% of the total dealers and rest 34% is occupied by co-operative and institutional agencies. The dealers margin is fixed by the government from time to time.

5. Fertilisers are mostly packed in 50 kg Jute and HDPE bags. They are transported in full train loads and road transportation is used for secondary movement from rail points to block headquarters. CWC, SWC and private godowns are made available for warehousing of fertilisers. The factory silos are sufficient only for 4 to 6 weeks production, which increases the need of warehousing.

6. The salesforce in fertiliser marketing occupies an important place as they have to be fully conversant with soil, crop and rainfall knowledge for extending help to the dealers and farmers. The duties of salespersons include publicity, distribution of education material, holding of farmers meeting, survey of the territories and regular feedback, monitoring the quality of the product, collection of sales proceeds from the dealers, reporting sales and marketing activities, and to contact local officials and press etc.

7. The marketing cost of fertilisers have been increasing over the years. Transportation cost occupies the top most position followed by packing cost. Transportation and inventory carrying cost (including packing material, bagging, storage etc.) are constituting
more than 80% of the total marketing cost.

1.2 Findings related with marketing control practices in public sector fertiliser industry.

1. Marketing control is applied in this industry with the help of annual plans, profitability control and efficiency analysis. Strategic control has got limited application in this industry. The application of controls vary among companies depending upon their standing in the market, profit earning and structure of the marketing organisation. The annual plan control is applied with the help of sales analysis, market share analysis and customers attitude tracking studies. The sales analysis is based on the sales budget of the companies. The monthly meetings are organised at marketing division level but these meetings are less frequent where zones have been created because under this structure zonal meetings become important. The sales analysis is a widely used tool for control but the reporting delays generally effect on holding the meeting. Moreover, the scope of corrective action is limited as the change in the product or market segment is difficult at short notice.

2. Market share analysis is applied by all the companies and mostly, the allocated market shares than the relative and overall market shares are taken for evaluation of ones strength in the market. The dominance of allocated market
share evaluation is due to the ECA allocation. The shares are compared with previous year share and there is no application of market share trends or comparison with any base year by any of the company under study. The corrective action based on share is futuristic and mostly the concentration is on distribution network, salesforce and promotion system.

3. Complaint and suggestion system is widely used in this industry for the study of customer's attitude. Customer's opinion survey is hardly undertaken for this purpose (except for promotion efficiency). Customers panel discussions are not organised. Companies adopt the complaint and suggestions for discussion at divisional level and corrective actions are initiated accordingly.

4. Profitability control varies widely among profit making and loss making companies. Though gross as well as net profit to sales ratios are calculated by both types of companies on yearly basis but the profit making companies analyse the regional and seasonal profitability also. Among the profit making companies the analysis varies like they analyse product profitability when one product is not dominating the product mix. Regional profitability has got limited scope of corrective action as the market can not be changed based on non-profitability of a region. Profitability analysis is handicapped due to the arbitrary base of determination of functional cost. The corrective
action in this respect is generally cost reduction measures and gearing up of marketing network.

5. Efficiency analysis is mostly limited to promotion and distribution. The industry analyse them but there is wide variation of components, comprehensiveness and corrective action among them. Advertising efficiency is evaluated by the company staff irregularly after the campaign on the basis of awareness about brand/product. Media-wise evaluation is undertaken by very few companies. But the sales promotion efficiency is analysed during the programme by the field staff and current period corrective action in the form of change of resources, regions or seasons take place. The components of evaluation vary among the established marketing firm and new entrant. Similarly, efficiency analysis of distribution includes two components --channel and transportation. Private and institutional channels as well as railways and roadways are evaluated separately on the basis of lifting of fertilisers during different periods. The basic source of information varies among plant and regional offices in case of channel.

6. The strategic control is applied with the help of marketing audit whose application is lacking in this industry. The loss making companies have never adopted the marketing audit where the profit making companies have opted for this measure in limited sense. The task
environment has been audited by one firm five years ago. Comprehensive, periodic and systematic audit is lacking in this industry.

1.3 Findings related with salesforce control systems in public sector fertiliser industry.

1. Application of the concept of territories sales quotas, sales budgets and efficiency analysis for the control of salesforce is common in the public sector fertiliser industry. The sales territories are designed on the basis of administrative district or districts and not on the basis of market potential of the area due to difficulty of proper evaluation. The sales volume quota is comprehensively applied for Rabi and Kharif seasons. The activity and combination quotas are not used in this industry.

2. The sales budgets for sales force control have got both the elements of revenue and expenses but they are not linked together for profitability evaluation of sales persons. The revenue is determined on the basis of sales quota assigned (based on ECA allocation) where the expenses are determined at the initiation of area managers as per the requirements of the territory. Ultimately the link between expense and revenue is missing. This, they are monitored separately. Regional offices review the expenses which varies from quarterly to seasonal among the companies.
3. Efficiency evaluation for salesforce control takes place with the help of salesforce expense to sales ratio and responsibilities assigned to them. The seasonal evaluation of expense in relation to sales is made in most of the companies to compare the current period performance with the previous period but no company opts for trend of these ratios or any normal year ratio as base for evaluation.

4. Responsibility evaluation of salespersons is undertaken for promotion, credit collection, reporting, dealer development and warehouse monitoring by the industry and the bases of evaluation are different for different responsibilities but they are almost similar among companies. The only difference lies in the comprehensiveness of the analysis. Promotion responsibility is evaluated on the basis of active participation in promotion programmes but all the companies do not apply it regularly. Moreover, the base is subjective. For collection efficiency the ratio between collection and credit sales is calculated but there is variation of periodicity among companies. The special collection drive is adopted by the companies as corrective action.

5. The reporting responsibility is evaluated on the basis of regularity of reporting and comprehensiveness.
The analytical content is not considered important and there is no format for report presentation. Number of programmes organised for dealer development forms the basis of evaluation by all the companies and neither the content and effectiveness of the programme is considered nor the number of programmes are planned for evaluation. Similarly, the number of visits to the warehouses form the basis for warehouse monitoring efficiency by most of the companies. Counselling, or result of the visits is not considered for evaluation.

6. The sales calls for control of salesforce is not applied in this industry. There is no call scheduling or planning in any company under study.

7. The behaviour based evaluation such as resourcefulness, product knowledge, co-operativeness etc. are not considered for salesforce evaluation. Some companies take help of complaint and suggestions of dealers and farmers in this respect for evaluation. Mostly, the salesforce control is outcome or responsibility based and not behaviour based.

8. The corrective action taken by the industry is generally negative in nature. In case of non-performance of salespersons, transfer posting takes place but for star performers there is no direct or indirect incentive. Even in their promotion such positive factors are not considered important as the promotion is time bound. The transfer
posting is generally resisted by the salespersons and retrenchment is very uncommon measure in this industry.

1.4 Findings related with application of accounting techniques in marketing control and identification of marketing key variables

1. Ratio analysis, budgetary control and variance analysis are comprehensively used in this industry. Their extent of use also depend upon the type of control systems applied and scope of corrective action.

2. Gross and Net profit to sales are the indicators of profitability ratios and they are applied by all the companies but their extent of use is more comprehensive in profit making companies than the loss making. For turnover ratios, the inventory turnover, debtors to sales and average collection period are calculated but they are comprehensively used in profit making companies. The trend of these ratios or a normal year as base for evaluation is not calculated.

3. The application of expense to sales ratio is more extensive as they are the guide for controlling costs. The category of expenses generally included for evaluation in this industry are sales promotion, distribution, personal selling and sales administration. The expense evaluation varies among companies in respect of in depth analysis, inclusion of two types of expenses in one category or
evaluation in terms of total marketing cost. Multiplicity of bases for evaluation is also evident in ratio analysis.

4. Advertising and sales promotion expenses to sales ratios are calculated by all the companies for previous period comparison. Indepth analysis of advertising expenses in terms of agency or media charges are not undertaken by all the companies under study. Similarly, sales promotion expenses are analysed in terms of sales and individual components of sales promotion expenses are not evaluated in terms of sales promotion expenses by the loss making companies. But the situation is different in case of distribution cost where two types of ratios are used -- one in terms of sales and other different components of distribution costs (such as handling, transportation, packaging etc.) in terms of total marketing cost to facilitate comparison with industry based data.

5. Personal selling expenses and sales administration expenses to sales ratios are calculated separately by most of the companies of the industry but the newly entrant company merges these two expenses together with the consideration that individually they do not form very significant part of the expense. Other companies do not analyse the individual expense items of personal selling in terms of total sales or personal selling expenses. The sales administration expense to sales ratio is used by most of the companies.
6. Marketing research to sales ratio is not used in this industry as the amount spent on marketing research is negligible.
7. Budgets form the basic document for input and output control in this industry where the ratio analysis is a supplementary measure for the purpose. Ultimately, the use of and reliance on budgetary evaluation is extensive. Based on the ECA allocation, sales budgets are prepared in terms of volume and value of fertilisers for different regions, seasons and products. Sales analysis which is one of the important techniques for sales evaluation adopted in this industry is based on sales budget.
8. Marketing costs are controlled with the help of advertising and sales promotion budgets, distribution budget, personal selling and sales administration budget which are prepared on annual basis. Advertising budget is generally mid-period reviewed where the sales promotion budgets are evaluated in terms of region and season also so a proper co-ordination is maintained among the efficiency evaluation and corrective action. The distribution budgets are reviewed on quarterly and seasonal basis.
9. Personal selling budgets are prepared with the components of regional and area expenses but the review of expenses vary from monthly to quarterly among profit and
loss making companies. Similarly, the sales administration budgets are reviewed for regional and area expenses by all the companies on quarterly basis.

10. Marketing research budgets are not prepared in most of the cases as the amount spent on marketing research is meagre. Some companies include these expenses in the agency charges with the idea that the marketing research activities are undertaken by the advertising agencies.

11. The variance analysis is limited to volume variance for output control. Product regions and seasons are evaluated separately which facilitate the current period control. The price and mix variances are almost in no use in this industry as the prices once fixed continue to be the same for many years. Favourable and unfavourable variances are calculated by all the companies with the help of budgets for controlling costs.

12. Ratio analysis, budgetary control and variance analyses are systematically blended together in most of the companies under study. For cost control, the budgets are the basic guide and as per the requirements of control and corrective action the variances are reported. The ratio analysis is supplementing the budgetary control so the types of ratios calculated are almost in line with the budgets prepared and evaluated for cost control.

13. The marketing divisions have been considered as the revenue responsibility centre. The zonal, regional and
area offices are not evaluated on the basis of responsibility centre concept. The profit responsibility centre has not been considered for evaluation of marketing division.

14. The sensitive marketing key variables accepted in this industry mostly, depend upon the immediate marketing problems faced by the company, and the objectives of the company as a whole. Thus, the sensitive variables considered vary widely among the companies like popularization of products in one particular area; sales and cost control; and awareness about the brand etc. They are company specific and not industry specific.

15. The input variables in this industry are cost control, proper packaging and transportation, guaranteed supply, quality and weight etc. The output variables are market share, customer satisfaction, customer awareness about the product and brand etc. The priority of input and output variable vary among the companies based on the cost consciousness, sales generation or profitability.

2. RECOMMENDATIONS:

The analysis of the data collected from public sector fertiliser industry revealed that marketing control systems adopted in the industry require improvements on many counts. Some suggestions for improvement are given below
so that control on marketing can be exercised in a better manner.

2.1. Recommendations for marketing control practices:
1. The companies, as they are relying more on sales analysis, should reduce the time lag of holding meeting of executives in the subsequent month for which the evaluation is going to take place. The financial reporting delay can be reduced by activating the salesforce at one end and finance department on the other as the responsibility of submission of resources to the bank lies with the salespersons. Moreover, where the periodicity of holding meetings are not fixed or they are irregular, the regularity should be maintained as it bounds the executives to prepare the details required. Even in the companies where zones have been created, the regular marketing division meeting should also be held because the decisions taken at the divisional level are having relevance of different type than the zones. At least during cropping seasons, meetings should be held more frequently.

2. The market share analysis requires some improvements. The allocated market share is recommended for all the companies because the marketing of fertilisers is regulated with the help of ECA allocations in terms of products, seasons and regions. The trend of market shares should be set for different periods to depict as to how the company has progressed in relation to its competitors in past
period. If the fluctuations in marketing conditions in the past have been more rapid and sharp then the companies should consider a particular year as standard and the market share should be evaluated in relation to that year rather than with the previous year. The standard year should be changed whenever the changes take place in company's marketing related policies, government policy or market condition.

3. The customer's attitude should be studied regularly at the initiative of the company. The profit making companies can spare resources for the purpose and regular customers survey should be conducted for taking corrective action. The customer panel should be maintained for prompt communication of their opinion, or the dealers and farmers should be called to the organisation for holding talks for immediate information about their opinion. As the loss making companies are not in a position to set aside some resources, the complaint and suggestion scheme should be seriously implemented. The dealers and farmers should be motivated to put forward their free and frank opinion about marketing of fertilisers, advertising campaign, sales promotion programmes etc. to the salespersons or area managers.

4. There should be extensive use of profitability control in this industry. It is not that only gross and net profit
to sales ratio should be calculated on yearly basis but the profitability control should be used for products, zones region, area and seasons separately for both profit making or loss sustaining companies. The benefit expected from such analysis is that the company will come to know the area, product or season where the profitability was low or loss higher as compared to previous standard. The natural costs should be reallocated in terms of functional costs. Some objective criteria should be evolved for allocation of natural costs. Contribution of costs in marketing of a particular product, region, season should be considered for the purpose of reallocation like local advertisement cost should be considered for that particular region. The national advertising cost should be equally allocated to all regions, products etc.

5. Advertising efficiency measures should be adopted for all campaigns and media separately during and after the programmes are implemented. The bases of evaluation should be the awareness about the company's product or brand due to particular campaign, opinion of customer about the content of advertisement, advertising cost per thousand target audience etc. A detailed analysis of different geographical segment should be adopted. It is advisable for the companies to take help of any consultant for the purpose (say advertising agency which has not designed the
programme but it is associated with the company, or own marketing research department).

6. The sales promotion efficiency should also be analysed during and after the programmes by the marketing research section. On the basis of awareness of company's brand and sales promotion cost to sales ratio etc. the evaluation should take place. The companies should not totally rely on the salesperson's analysis as the chances of biasness is more due to their involvement in monitoring these programmes. But the salespersons opinion is important when the company is considering the diversion of resources between regions and seasons. The distribution efficiency should be analysed for channels and mode of transport. A comparative evaluation of one channel over the other should be undertaken to know the relative efficiency, and the companies can direct their efforts accordingly.

7. The strategic control should be implemented with the help of marketing audit in all the companies on regular basis. The audit should be comprehensive, unbiased and systematic. Those companies which can spare resources, should use marketing audit as a control tool on yearly basis to make its marketing efforts atuned with the changing marketing environment. The companies which can not spare resources may use the marketing audit after a gap of one year as the comprehensive audit requires resources.
It is not that only at the time of crisis, the audit should be tried. To make the audit comprehensive, the major areas to be included should be task environment audit like market, customer, competitors, distributors etc.; marketing mix audit including product, price, distribution, promotion, salesforce etc.; marketing organisation audit focusing on authority responsibility relationship, efficiency of marketing organisation, relationship with other departments in the organisation; marketing systems audit comprising marketing information system, marketing control system, marketing planning system and marketing productivity audit to analyse the profitability and cost effectiveness of marketing efforts. The audit of marketing environment for fertilisers should be conducted by the organisations like Fertiliser Association of India, Planning Commission or Ministry of Chemicals and Fertilizers etc. and the individual companies should be relieved from this task. For other audits, the outside agencies should be engaged because if the company executives are spared for the purpose, it will lack objectivity and independence. The help of FAI in this regards may be taken as the Association is fully equipped with research staff.
2.2 Recommendations for accounting techniques in marketing control:

The accounting techniques support the marketing control system. As the marketing control needs improvements so some changes are required in accounting techniques also. In addition to that, to make accounting techniques more supportive some measures are also suggested.

1. The break-up of profitability ratio should be increased for product, season, region and area offices. These break-up will give chance to the company in analysis and decision on cost reduction and intensification of marketing efforts for more profit generation or loss reduction. Similarly, the inventory turnover, debtors to sales and average collection period should also be analysed for seasons, regions and areas rather than only for the company as a whole.

2. The ratio of individual components of advertising (like media and agency charges) to total advertising expenses as well as the cost of different types of sales promotion methods (like field demonstration, soil testing, mini-kit distribution etc.) to total sales promotion expenses should be calculated on quarterly basis. Similarly, the sales administration costs and personal selling cost components should also be analysed with the
help of ratios. These small break-up of costs and revenue components and their ratios if taken on a particular regular interval, will magnify the analysis. If the periodicity of analysis is increased, it will become more supportive for current period control.

3. The ratios are generally evaluated in respect of previous period but all the previous years are not suitable to be considered as base for evaluation so it is suggested that in addition to previous period any year which the marketing executives consider as normal year or standard year of performance should be selected for the purpose and the ratio of current year or period should be placed against them. Their deviations will be better guide than the deviation from previous year. The other improvement suggested in this regards is the plotting of these ratios of some periods on the graph so that a trend can be depicted to enable the executives in analysis of changes taking place in respective ratios over the periods.

4. Sales administration and personal selling budgets should be separated and they should be reviewed quarterly for the regions and areas where the sales offices have been established. Similarly, the distribution budget also requires quarterly evaluation for different components like packaging, handling, transportation etc. The product-wise distribution budget should be prepared and evaluated by all the companies.
5. Marketing research budget should be prepared and the costs incurred on marketing research should be controlled by the evaluation of expenses on quarterly basis. The inclusion of marketing research expenses with advertising agency charges make the evaluation of both functions and costs difficult and deceptive. The ratio of marketing research expenses to sales should also be calculated as a supporting indicator.

6. The application of mix variance is limited in this industry due to the nature of pricing but its applicability should not be ruled out in those years when the prices are changed.

7. In case of budgetary control the favourable and unfavourable variances are calculated periodically. The concept of performance budgeting should be adopted in addition to the aggregative comparison. The basic indicator for converting the planned performance should be the actual sale of fertilisers. The other expenses should be recalculated on the basis of actual sale and they will become the standard for evaluation with actual performance. The favourable and unfavourable variances should be calculated with these data. They are better indicator of performance than aggregative budgeting.

8. The responsibility centre concept should be applied thoroughly in the organisation. The marketing division
should be treated as a profit centre for the purpose of evaluation. This will enhance profit consciousness among the executives leading to marketing cost reduction measures. The fertilisers should be transferred to the marketing division at a price and the division should be asked to show profit under prevailing marketing conditions. If the companies are not in a position to utilise their capacity of production, then at least due to profit responsibility assignments, the companies will try to reduce losses by curtailing the marketing expenses.

9. On the basis of sensitivity of marketing control variables, the control system should be properly designed. Wherever the input variables have been considered sensitive, more stress should be on the application of cost budgets and where the output control variables are emphasized, different performance standards should be selected and they should be properly monitored e.g. if a company considers, market share as an important output variable, then it should set standard in terms of market share by product, season, region etc. and then monitor its efforts accordingly, to achieve those standards.

2.3 Recommendations for Salesforce Control System:

The following suggestions are being given for improving the salesforce control system.

1. The salespersons should be assigned territories determined on the basis of market potential of the area and
the requirements of fertiliser education among the farmers. The administrative district selected as territories do not satisfy the market potential, coverage difficulty, record of sales and salespersons participation in farmers and dealers development etc. It would be better to analyse the sales potential on block and tehsil basis and a combination of these may be considered. In turn it may take the form of administrative district or combination of districts but it will provide a scientific basis for the determination of sales territories.

2. The activity quota should be set for non-selling activities which dominate the fertiliser sales job. The activities to be included are dealer development programmes, meetings with the farmers in weekly markets, reporting time, warehouse monitoring etc. These activities should be scheduled on weekly or monthly basis according to types of activities.

3. The expense and revenue elements of the salesforce budgets should be linked together so that the profitability rather than only sales and costs should be monitored. The expenses should be reviewed quarterly by the area or regional managers.

4. The use of salesforce expenses to sales ratio as an indicator of efficiency should be compared with the corresponding period of the previous year and season. In
addition to this, either trend of these ratios should be determined or any normal year may be considered as standard for the evaluation of these expenses.

5. Promotion responsibility should be evaluated on the basis of number of promotion programmes organised during a particular season, the role of salesperson in that programme, the content of the programme and the effect of the programme on awareness among dealers and farmers. A weightage system may be adopted for evaluation of individual programmes. For credit collection efficiency, the ratio between collection and credit sales should be monitored monthly.

6. The periodicity of reporting and the content of the report are no doubt, important bases for evaluation but more effective way of evaluation proposed is on the basis of analytical content of the report. For that purpose a format should be designed wherein the aspects needed for reporting should be included like competitors position in the market in terms of continuity of supply, credit collection, nature of the markets during the reporting period etc. Included in the format should be remarks column where the salespersons should give causes relevant for these changes. Special attention should be paid for inclusion of complaint and suggestions of the farmers and dealers in these reports.
7. The salesforce role in dealer development should be evaluated not only on the basis of the number of programmes organised but also on the basis of effectiveness of the programme content and execution of the programmes. Marketing research section of the company may be used for such an evaluation. Similarly, the warehouse monitoring responsibility can be evaluated on the basis of end result of the effort. If the activity quotas are scheduled, the responsibility evaluation will become more effective.

8. The role of sales calls in fertiliser marketing should not be underestimated. The salespersons have to make calls on farmers, dealers, warehouses etc. The call schedules should be prepared on weekly basis and they should be closely monitored. Not only that, the call efficiency should be measured from time to time like average cost per sales calls, average travel cost per sales call, average number of sales calls per day etc.

9. The behaviour based evaluation of the salesforce should be conducted. The components included for evaluation should be resourcefulness, co-operativeness, mannerism, temperament, appearance, product knowledge, contacts with the banks, dealers and farmers at large etc. The company should take initiative for behaviour based evaluation of salesforce and it should not rely only on the
complaint and suggestions provided by the farmers and dealers.

10. The corrective action taken by the companies are generally negative which should be changed. The sales persons who are performing in a better way on the job should be given proper recognition in terms of promotion and financial benefits. If the company pays special attention on the star salespersons, those who are performing below standard will be motivated to work hard. If they are not properly recognised, it will lead to dissatisfaction, frustration, and anxiety. The chances of making an exit by these salespersons will increase. Those salespersons who are not taking the job seriously, should be retrenched after a specified number of punishment transfer posting.

3. DIRECTIONS FOR FUTURE RESEARCH

Some guidelines are provided for conducting researches in future period in control related areas.

1. The scope of the present study is limited to one sector of the fertiliser industry. The extension of this research should be for all the three sectors -- private, co-operative and public.

2. The management control systems as they are applied in fertiliser industry should be studied from top management
point of view. The other functional areas like production and finance control should also be studied separately.

3. The formal system of control is generally studied because they are designed by the executives but the organisations use the informal control systems also. There is a need to study as to how the informal control system is working in these organisations.

4. The dimensions of looseness and tightness of control in the organisation should be studied. The impact of lose and tight control on the working of the control system and human behaviour may be studied in this industry.

5. A comparative study of control related behaviour on middle and supervisory level staff should be undertaken in fertiliser industry.

6. A study of behaviour based vis-à-vis quantitative control system should be conducted for the salesforce control. The scope of the study should be extended to other consumer goods industry.

7. The study of application of comprehensive marketing audit in selected industries may be conducted.
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APPENDIX - I
CHECKLIST

PART-I
MARKETING CONTROL PRACTICES (GMM/DGMM) ADDL.GM (MARKETING)

1. General Informations about the Company: Organisation Chart (Marketing Division), Product Profile, production sales and financial performances, target market, Pricing, advertising and sales promotion methods, distribution system, etc.

2. Types of control systems applied: Annual plan control, profitability control, efficiency control and strategic control.

Sales analysis information: basis of standard fixation, level upto which standards are fixed, the break-up of analysis -- product, region (segments), seasons, periodicity of analysis, information requirements and its channel as well as periodicity, variations and their causes, corrective action and problems in taking corrective action etc.

3. Market share analysis: the types and periodicity of market share analysis (relative, allocated, overall etc.), basis of comparison, causes of variation from the standard, nature of corrective action etc.

4. Customer attitude tracking studies: Involvement of the company in tracking attitude, periodicity of the study.
the systems adopted for the study like complaint and suggestion system, customers panel discussion, customer survey, corrective action.

5. Profitability control: Areas for which profitability is measured (product, region, territories, channel etc.) periodicity of analysis, basis of cost allocation, causes of deviation and corrective action.

6. Efficiency control: advertising efficiency, the variables for which analysed, basis of evaluation and agencies involved, periodicity of analysis, corrective action.

7. Sales promotion efficiency: the variables for which analysed, basis of evaluation, periodicity of analysis agencies involved for evaluation, corrective action.

8. Channel efficiency: variables for which analysed, periodicity of analysis, agencies involved, corrective action.

9. Transportation efficiency: mode of transport analysed, basis of evaluation, periodicity of analysis, corrective action.

10. Strategic control: application of marketing audit, the components of marketing audit including marketing environment audit, task environment audit, marketing organisation audit, marketing systems audit, periodicity of the audit, corrective action etc.
11. Marketing key variables: sensitive marketing key variables, types of input and output variables considered, priority of variables among guaranteed supply, cost reduction, quality and weight, packaging and transportation, customer satisfaction, market share, growth in sales etc.

PART-II

SALESFORCE CONTROL SYSTEMS
(Regional Marketing Manager/Area Sales Manager)

2. Territories determination; basis of territorization and deployment of salesforce.
3. Sales quota, types of quota, variables for which they are set, evaluation system, general causes of variation.
4. Sales budgeting; component of the budgets, periodicity of preparation and evaluation, causes of variation.
5. Salesforce efficiency - efficiency with the help of calls; basis of comparison and corrective action; efficiency with the help of personal selling expenses like salaries, TA, DA in relation to sales, basis of comparison.
6. Evaluation based on responsibilities assigned like promotion, credit collection, reporting, dealer
development, warehouse monitoring and basis of their evaluation.

7. Behaviour based evaluation including co-operativeness, resourcefulness, technical knowledge, public relations etc.

8. Types of corrective action taken for above and below normal performers, problems encountered in implementation of corrective action.

PART-III

ACCOUNTING TECHNIQUES IN MARKETING CONTROL

(Marketing Division/Marketing Research/ Information Centre/ Finance Department)

1. Ratio analysis: output ratios, profitability ratio and turnover ratios.

2. Profitability ratio; gross profit to sales, net profit to sales, product, seasonal, territorial profitability, problems in allocation of costs.

3. Turnover ratio - inventory turnover segments covered, periodicity and basis of calculation; debt collection period, periodicity, product and segments; debtors to sales its segment and periodicity, basis of comparison.

4. Marketing cost to sales ratios (Input control) - sales promotion, advertising to sales, periodicity, basis of evaluation, individual cost component to sales
promotion or advertising ratio; distribution cost ratio in respect of marketing cost, in respect of sales, periodicity of analysis; personal selling expense to sales, periodicity of analysis, basis of comparison, internal ratio with total personal selling expenses; sales administration to sales, periodicity, segment, basis of comparison, marketing research to sales ratio periodicity basis of evaluation. Nature of ratio in total accounting techniques and marketing control.

5. Budgeting - sales budget, components, value/volume, periodicity of evaluation, region, etc. budget progress reporting.

6. Types of budgets used like sales promotion, advertising, distribution, personal selling, sales administration, marketing research, their period of review and reporting.


8. Responsibility centre concept and its application in marketing for division, region and area offices.