CHAPTER II

NATURE, SCOPE, OBJECTIVES AND RESEARCH METHODOLOGY

Last chapter was introductory nature that covered the concept and historical perspective of petroleum product and its importance, the brief review of Indian petroleum industry. Also last chapter covered the International oil companies along with OPEC, oil exporting and importing countries etc. This chapter will outline the Nature, scope and research methodology of this study. In research methodology, primary and secondary data and its sources, sample selection, sample design, data interpretation and its tools and techniques will be discussed. Chapter scheme, hypothesis and limitations of this study will be determined.

Introduction: Petroleum products play vital role in the life of individual as well as at mass level. Literally Distribution means spreading out or allotting products. Product is one of the most important marketing tasks and an integral part of the marketing mix. It involves a series of operations, which physically bring products manufacturer into the hands of the final consumers. A. W. Shaw defines distribution as the “Applications of motion to material as they have value”.

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According to Robert A. Robicheaux “The distribution responsibilities of marketing encompass the management of both physical distribution and market channels’ activities performed together, these two broad sets of activities link producers with consumers”. As pointed out in this definition, distribution has two aspects, viz. the organizational and the operational. The organizational aspects of distribution are concerned with such issues as to how and through what channel the products are to be distributed, that is distribution channel management. The operational aspects called physical distribution that includes all physical operations involved in the movement of goods from one place to another place that is warehousing, storage, physical handling and transportation. Both the aspects of petroleum products will be dealt with here. The distribution of petroleum products has been a hotly debated topic for a long time. Long waiting lists, stock outs malpractices adopted by distributors fetch of plethora of problems plugging the distribution of LPG and Kerosene. Many complaints, claims and counter-claims from consumers, Dealers and petroleum product manufacturers appear ever so frequently in the Newspapers. This scenario demands healthy
marketing environment, government’s policy is also equally responsible for this disquieting trend.

A Channel of distribution is also called a “Trade Channel” or a “Marketing channel.” In the words of Professor William J. Stanton, A channel of distribution for products is the route taken by the title to the product as it moves from the producers to the ultimate consumers or industrial user. A channel always includes both the producers and final consumers. It is the paths to goods and title to these goods follow from producers to consumers.

For the product as well as the middleman involved in the title transfer. Distribution channel management consists of designing channel structure, assigning functional responsibilities to all the channel members and coordinating and controlling the operations of the members to ensure achieving individual, organizational and total channel goals with the consumer’s satisfaction.

**Nature of the Study:**

Petroleum industry ultimately has an important impact on the rate at which an economy is capable of growing. Obviously, if there is weak oil sector, there would be slow
growth of industry, agriculture and primary sector. Thus for achieving an accelerated growth rate, it is essential that the government should accord the highest priority for the development of oil industry and proper distribution of petroleum products.

The consumption of petroleum products in the world started in the 19th century and rapidly increasing in 20th century till today. The sources of major portion of the supply of oil to the entire world as well as to India originated from the Arab (Middle East) countries. The era of availability of oil at lower prices came to an end with the decision of Organisation of Petroleum Exporting Countries (OPEC). Due to uncertainty in the price of crude oil in international market, India had a huge adverse balance of payment position and external debt problem. The entire Indian economy has been seriously affected due to the tremendous hike in oil prices in 1972. Owing to poorly endowed position of India with Oil and Natural Gas resources, it has to consequently depend on imports of crude oil and petroleum products.
What has been the experience of Indian economy in this respect? The supply of all fuels has been increasing but not adequately to meet the domestic requirements. As a result, India’s speedy economic development and meeting the growing petroleum demand became difficult. Corrective measures should be adapted to help distribution channels to overcome the problem of price hiking and shortages of petroleum products. India depend upon import of petroleum products whose pricing policy decided by oil producing countries. Variation in prices strictly affects the Indian economy. Insufficient commission of petrol diesel owner’s results in strike by petrol pump owners, is another crisis faced by the consumers safety measures, locality of petrol diesel pumps, behaviour of employees etc. were the factors undertaken for study. Shortages of petroleum products resulted in disruption in all productive sectors viz. Power generation, agriculture, transport industries etc, as well as domestic use of LPG and Kerosene. Hence, black marketing of Kerosene and LPG became a debatable topic in community, why? What leads to this sorry state of affairs is
indeed important problem that inspired me to undertake this study.

The preamble of this work is to study the “Marketing of petroleum products and role of distribution channels by way of a review of activities of the existing distribution channels in India, in general and in Marathwada region in particular along with geographical variations in terms of transportation.

Present study is planned to discuss the impact of marketing of these products, which would cover an overview of pricing, sales promotion of these products, in particular Marathwada region undertaken for detailed study. Need and scope of marketing strategies, role of government sector concern to this would be our interest of study. The study lays the light on various aspects of the distribution of the products like kerosene, LPG petrol, Diesel, and problems. Their of the study would be important not only to plan the different sources of augmentation in their indigenous production but also be helpful in conserving Petrol, Diesel, Oil, LPG and Kerosene. As such the study would prove to be useful in planning of distribution channels of the Government as well as private sector.
Scope of the study:

The scope of the study is very vast. It may however, be well considered from three different dimensions, viz., geographically, operationally and temporally. The details of which may be given as follows:

1. Geographical: Geographically this study is confined to 8 districts of Marathwada in general and its three districts in particular that is Aurangabad, Parbhani and Osmanabad. Aurangabad is the divisional Headquarter of Marathwada region, which is located in central part of Maharashtra with 10107 sq. k.m. area and consisting of 2214000 population along with 8 Taluka and 1044 villages and literacy percentage is 53.72%. It is away 400 k.m., from Mumbai- Economic capital of India. The nearest oil reservoir is in Panewadi village Manmad of Nashik District. Another district under study is Parbhani, which is near about 200 k.m. South-East to Aurangabad, with 11041 sq. k.m. area consisting 2117000 populations and 7 Taluka. Osmanabad district is located at Southern part of Maharashtra. It is 250, k.m. from Aurangabad with 7559 sq. k.m. area, 1276000 populations. It has 6 Taluka, with 538 villages and 51.41 rate of literacy. The nearest oil depot for this district is Solapur.
2. Operational: From the point of view of the converge of the operations/functions, the study encompasses marketing of petroleum products by channels of distribution the following:

1. Distribution and Marketing of petroleum products; petrol, diesel engine oil etc and

2. Distribution and marketing of LPG through various channels both under Govt. and Pvt. Sectors in Marathwada.

3. Marketing of Kerosene, in particular parallel marketing of Kerosene. Distribution of Kerosene through Public Distribution System (PDS), under the area of study.

4. Self sufficiency, better utility and saving of petroleum products.

Present study also confines its scope to study the operational efficiency of distribution channels of HPCL, BPCL, IOCL & IBP.

3. Temporal:- Temporally the study covers the following Periods:-

1. In general, the post independence period.

**Principal Objectives of the Study:**

The principal objectives of the study can be said as under:

1. To review the working of petroleum companies (Govt. Undertakings) from time to time in the post independence era. Particularly in the decade is period 1997-2006.

2. To investigate into the distribution activities of existing channels of distribution in regard to petrol, Diesel, Kerosene and LPG products.

3. To assess the Government policy towards the channel of distribution of the petroleum product line and suggest corrective measures, if any.

4. To study the impact of Globalization on Indian petroleum Industries in terms of Marketing and Distribution of Petroleum products.

5. To study the impact of pricing policies and distribution/production policies of OPEC.

6. To evaluate the working of sample distribution channels in Marathwada and to suggest measures for Improvement there in.
7. To probe into any collateral of or incidental to any of the above objectives.

**Research Methodology:**

**Sample design**

The study is based on primary as well as secondary data; Primary data are collected from three districts of Marathwada region viz. Aurangabad, Parbhani and Osmanabad through random sampling. From each district, by lottery method a sample of 5% or 10 whichever is higher petrol pumps and a sample of 10 consumers each have been selected for their evaluation of distribution of products and extent of efficiency. In all, our study covers 30 petrol pumps and 300 consumers thereof.

From each district, by lottery method a sample of 10% or 5 whichever is higher, LPG agencies and a sample of 10 consumers of each LPG agency have been taken. In all, present study consists of 15 LPG agencies and 150 LPG consumers.

For kerosene, from each district, by lottery method, 2% or 50 whichever is lesser of total dealers and 10 consumers from each dealer are taken under study to evaluate the
working efficiency of concerned Agencies. In all, for Aurangabad district a sample of 35 dealers out of 1700 dealers and a sample of 350 consumers are selected. For Parbhani in all districts a sample of 30 dealers out of 1382 dealers and a sample of 300 consumers have been selected. Similarly, however, for Osmanabad district out of 860 dealers, a sample of 20 dealers in all and a sample of 200 consumers are selected. Above information can be summarized below in tabular form as:

Table No. 2.1: Districtwise Dealers/Distributors of Petrol, Diesel, Oil, LPG and Kerosene (SKO)

<table>
<thead>
<tr>
<th>Petroleum Products</th>
<th>Aurangabad</th>
<th>Parbhani</th>
<th>Osmanabad</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKO</td>
<td>1700</td>
<td>1382</td>
<td>860</td>
</tr>
<tr>
<td>LPG</td>
<td>22</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>Petrol, Diesel, Oil</td>
<td>97</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>Total number of Agencies</td>
<td>35 (2%)</td>
<td>30 (2%)</td>
<td>20 (2%)</td>
</tr>
<tr>
<td>Number of Samples Selected</td>
<td>5 (max)</td>
<td>5 (max)</td>
<td>5 (max)</td>
</tr>
<tr>
<td></td>
<td>30 (max)</td>
<td>10 (max)</td>
<td>10 (max)</td>
</tr>
</tbody>
</table>

(Source: District Supply Offices)

Sources of secondary data

Secondary data of domestic production, consumption and marketing of petroleum products have been taken by application of financial and statistical techniques in gauging and evaluating the efficiency of the distribution channels concerned to petroleum products of companies in Government
sector. Sources of secondary data relating to distribution, marketing, consumption and import of petroleum products for India OPEC and major Oil producing countries of the world are as under:

1. The union Minority of petroleum and Natural Gas

2. Energy center for monitoring Indian economy

3. Annual Bulletins of OPEC

4. Economic Survey of India

5. The Energy Resources Institute (TERI), New Delhi


7. Oil Coordination Committee (OCC)

8. Annual reports of HPCL

9. Annual reports of BPCL

10. Annual reports of ONGC

11. Annual reports of IOCL

12. Petroleum review 2006

A computer data base is being created to store, tabulate and analyse the data pertaining to selected companies and data collected both through this primary and secondary data. The system is designed and developed for the analysis based on
popular financial techniques and statistical tools, viz. Ratio Analysis, Index Numbers, Trend analysis, Mean, Percentage, Comparison tests, etc. respectively.

**Hypotheses:**

The micro study of distribution channels of petroleum products aims to test the following hypotheses:

1) The distribution channels are working efficiently throughout the area under reference.

2) There is a better coordination between Government and petroleum Companies to regulate and provide better services by the dealers.

3) Consumers are satisfied from the services provided by the dealers.

4) Indian Oil Companies have been adversely affected by Globalisation in regard to prices of petroleum products.

5) OPEC plays an important role in deciding pricing policies of petroleum products at world level.

**Chapter Scheme:**

The chapterisation of the study maybe described as follows:

Chapter 1, *Introduction*: This deals with the historical perspective and importance of petroleum products, Indian
petroleum industry. This chapter also deals with the review of major International Oil companies along with OPEC.

Chapter 2, Nature, Scope, Objectives and Research Methodology: This chapter covers scope, objectives and limitations of study and research methodology, along with sample design, chapterisation, and hypotheses of the study.

Chapter 3, Petroleum Industry in India-marketing and distribution: This chapter covers an overview of Indian petroleum industry regarding production, consumption, marketing, pricing, taxation and various modes of transportation and distribution channels of petroleum products. Also Government policy for petroleum industry (marketing), as well as action plan towards self reliability.

Chapter 4. Marketing of Indian Petroleum Companies (Govt. Undertaking) and Impact of Globalisation on them: This chapter highlights the major oil companies taken under study i.e. IOCL, HPCL, BPCL, and IBP regarding production, sales, marketing network, their marketing strategy, its advantages and limitations, problems and solutions of above companies. Also this chapter highlighted the impact of Globalisation on petroleum industry in terms of production, marketing and distribution.
Chapter 5, *OPEC and its Marketing Policy*: This deals with the historical perspective, structure, performance and functioning of OPEC. Also it covers the OPEC’s control over production, its pricing policy and export.

Chapter 6, *Marketing of Petroleum Products by sample channels: (Survey Revelations in Marathwada Region)*: This deals with the survey revelations drawn from sample distribution channels of petroleum products in Marathwada region in regards to Petrol, Diesel, Oil, Kerosene and LPG.

Chapter 7, *Summery of the Findings and Recommendations of the study*: This chapter covers findings, conclusions and recommendations based on present study, also this chapter will highlight scope of the study for further research.

**Limitations of the Study:**

The present study is handicapped on account of the following:

1. The present study is based only on three districts (sample) of Marathwada region out of 8 districts.
2. The basis of primary data collected is the responses of the respondents although every precaution is taken to the possible truism in their responses.
3. The secondary data were not available in certain respects in the desired form, hence effected requiring conversion of available data as per study requirements. This led to certain approximations even after taking all the necessary steps towards precision/accuracy.

4. Time series data for the entire reference period of a decade could not be made available leaving the gap of one or two years, for which data were got computed by statistical techniques such as interpolation\ extrapolation without diluting the quality of work.
Select references:


2) Ram Ahuja, Research methods, Rawat publications, Jaipur, pp.72.

3) B.N. Ghosh, Scientific method and social research, Sterling publishers private limited, L-10, Green Park extension, New Delhi, 1984, pp.52

4) C. R. Kothari, Research Methodology, Methods and techniques, Wishwa Prakashan, New Delhi, pp.404.