CHAPTER – I
INTRODUCTION

Petroleum products are basic natural resources without which existence of mankind is almost impossible. They play a vital role in human welfare, as all-important economic activities of present development are dependent on the use of petroleum products. They become the part of daily needs of human being by means of several ways. It is the reason why person, groups, countries even continents are looking it as crucial problem. Even battles took place for the same reason and no body is fully assured to overcome its future crisis. From our side, it becomes essential to take the advantage of aviate natural resources to produce large amount of petroleum products. Develop proper measures to save as much as possible the petroleum products, because process of saving is nothing but a reproducing process. Proper use of these products will save large amount of our foreign exchange expenditure.

This chapter begins with the importance of petroleum products in general and the problem of marketing and distribution of these products in particular. It is divided into
six parts from the point of view of simplification and convenience. In part-I, the importance of petroleum products has been discussed. The concept and historical perspective of petroleum products is reviewed in part-II. Part-III pertains to brief review of Indian oil industry. Part-IV portrays the review of marketing and distribution of petroleum products in India. Part-V dealt with International oil industries along with OPEC. Part-VI outlines brief account of exporting and importing countries of petroleum products.

**Importance of Petroleum Products:**

As mentioned earlier, petroleum products, the basic natural resource, without which existence of mankind is almost impossible. To a common man, it is a commodity he buys like kerosene and electricity, to an engineer it is the heat required for industrial furnaces that powers machinery, to an economist; it is the key ingredient in the national prosperity. Thus, petroleum product plays a vital role in human development and welfare, as all-important economic activities of the present development are dependent on the use of petroleum products. The last few years of the nineteenth century witnessed the introduction of the motor car with its
internal combustion engine driven with motor spirit or petrol. The motor vehicle industry having found a convenient and cheap source of energy for use on the road made remarkable progress. The production methods on mass scale were introduced, by Ford as one of their pioneer and soon copied by others. The spirit component of the crude oil, which had been a nuisance before, became the most desired product of the refining process.

Somewhat later, another internal combustion engine was invented and developed which has come to be known by the familiar name of the diesel engine. This diesel engine has the merit of using a heavier component from the refining process known as the diesel. This is fairly close to the kerosene fraction, mostly used to heavy machines such as tractor, Lorries, trucks, buses, and ships and electricity generating stations. With this development kerosene came to be regarded as of secondary importance, especially in the United States. Kerosene was used only for firing central heating Furnaces and other similar purposes. Unlike in mid 1950’s, more than half the demand for petroleum in the
United States was for motor spirit, while in Europe it was less than one third of total demand.

Then, yet another technical advance in the use of petroleum products came in use of Jet engines and by the mid nineteen sixties, the rapidly increasing air transport and military Air craft system of the world was using Jet air craft in preference to the older and slower air craft. This increasing use of air transportation created demand for turbine fuel which is one of the petroleum products. Initially, electricity became replacement of petroleum products. But very soon, in the changing milieu now days, due to shortage of electricity, petroleum products are used as a substitute to electricity, therefore, consumption of petroleum products increased leaps and bonds.

In short, these products are supposed to be important parameters of overall economic developmental activity of any country. Therefore, the process of economic development demands increasingly higher level of energy consumption of these products. In present situation; one can say there is not a single person found in the world that is not the user of all or one of these petroleum products. Due to diversified uses, the
consumption of petroleum products increased rapidly in these years. Comparing with GNP (Gross National Product) it is observed that, though GNP increased slowly by the time consumptions of petroleum products practically increased in manifold.

The Concept and Historical Perspective of Petroleum Products:

After the first successful oil well that was drilled by Drake to a depth of about seventy feet around 1860, in Pennsylvania, the natural tendency was to look for oil recovery from places where there was natural seepages of oil or gas, or in general neighborhood of such places. As more and more successful wells were drilled, the search tended to spread further a field. It was the era of wildcatting.

Geology was in the forefront of these new scientific disciplines. New procedures were devised, new instruments invented, to help to find what lay deep below the earth’s surface, and not merely in the shallower strata. Pure science, with its developing theories of the earth’s structure and evolution, joined hands with applied technology in the hunt for mineral resources, and also the search for more and more
oil. The sandstone rocks formed in the earth’s sedimentary basins are the porous reservoirs of petroleum. Of the total land areas of the earth, about one third consists of sedimentary basins, where the waters have stood and dried repeatedly in the past, over long intervals of time. Many of them are the great river basins such as the Mississippi, the Indus and the Ganga, Amazon and the Orinoco, and the north-flowing rivers of Russia; the sea gulfs and inlets such as the Persian Gulf, the Gulf of Mexico; and inland lakes such as the Caspian Sea. These areas are reportedly all potential sources of oil.

All this is a far cry from the early hit-or-miss methods and wildcatting and proving more and more oil reserves and resources along with equally spectacular boost in oil production round the world, especially after World War II.

**Brief Review of Indian Oil Industry:**

Up to 1886 the consumption of petroleum in India was completely dependent on American imports. Even it was not significant before the First World War. There were number of hand-dug wells in Burma, which was administratively part of India until 1936, but the production was very small. The Industrial Policy Resolution of 1948,
which divided the industries into four groups according to the
degree of control to be exercised by the government which
were as follows:

A) The first group covered manufacturing of arms and
ammunition, the production and control of atomic
energy, and the ownership and management of railway
transport were to be exclusively monopoly of the
central government.

B) The second group covered coal, Iron and steel,
aircraft manufacturing, ship building, etc. New
undertaking in these industries could hence forth be
undertaken only by the state.

C) The third group was made up of industries of such
basic importance that the central government would
feel it necessary to plan and regulate them.

D) The fourth group comprising the reminder of the
industrial field was left open to private enterprise,
individual as well as cooperative.

Specifying that, all the new units in the oil industry
would be set-up only under the government ownership in the
third group. Although, permission was given to some of the
private foreign companies to build refineries under their exclusive ownership, some of major Indian oil Companies (public) and their brief profiles are discussed hereafter.

**Oil and Natural Gas Commission: (ONGC):**

In December, 1955 the oil and Natural Gas Division was created as a part of the Ministry of Natural resources and scientific research. It was shortly converted into a commission and in October 1959, the Oil and Natural Gas commission became a statutory body under an Act of Parliament. Its main function was the exploration and production of crude and started them since 1958 onwards, with the assistance of Russian experts; The Corporation discovered a number of oil fields in Gujarat and Assam and undertook the Vietnam project that is ONGC Videsh Ltd. As of today the project is making satisfactory progress. After the smooth functioning of ONGC, Indian government felt the necessity of oil refining as well as marketing company therefore government establish IOCL.

**Indian Oil Corporation Limited (IOCL):**

Indian Oil Corporation is the largest Commercial enterprise in India, and the only Indian Company in fortune
magazines Global 500 listing of the world’s largest corporations, with a ranking of 232 for fiscal 1999. In the list of 800 largest Corporations published by Forbes magazine, Indian Oil Corporation is ranked as 100th one.

It was established in 1959 as Indian Oil Company Ltd. Then Indian Oil Corporation Ltd. was formed in 1964 along with merger of Indian refineries Ltd. (1958). Indian Oil Corporation owns and operates 7 refineries out of 17 with a combined capacity of 35.55 million tonnes per annum. Indian Oil Corporation has the country’s largest network of on land pipelines, with the length of 6453 k.m and capacity of 43.45 Metric Tonne Per Annum (mtpa). With the sales of 48.79 million tones in 1999-2000; Indian Oil Corporation shares 55% of the petroleum products market in India. The extensive network of nearly 20,000 sales points is backed for supplies by 188 bulk terminals, and 92-aviation fuel stations.

**Bharat Petroleum Corporation Limited (BPCL):**

On 24th January 1976, the Burmah Shell Group of Companies was taken over by the Government of India to form Bharat Refineries Limited. On 1st August 1977, it was renamed “Bharat Petroleum Corporation Limited (BPCL)”. It
was also the first refinery to process newly found indigenous crude (Bombay High), in the country. BPCL is refining and distribution integrated oils and gases Company. The company is ranked as third in the Indian oil refining industry after Indian Oil Corporation (IOC) and HPCL. BPCL that emerged as a corporate entities after pooling their assets from Burma oil and Royal / Dutch shell, was primary involved in the processing of petroleum products. The products offering of BPCL includes engine oils and gasoline for auto engines, liquefied petroleum gas and Kerosene for the domestic sector and feedstock’s and fuels for the industrial sector. BPCL owns a network of 4400 petrol stations, 960 kerosene dealers and 1,180 LPG distributors. The Indian government has 66% stake in the company’s equity.

**Hindustan Petroleum Corporation Limited (HPCL):**

The Hindustan Petroleum Corporation Limited is the second largest integrated oil company in India. HPCL was primarily involved in the refining and marketing of oil and gas. It has the distinction of having the largest lube base oil capacity (40% -335000 mtpa) in India, in addition to being the maiden Indian petroleum major to go for a public issue. It has a 21% share in crude oil Refining capacity and 18% in the
Indian lubricants sector. The main products of HPCL include HSD, Naphtha, Solvent. HPCL's 51% stake is owned by the Government of India. In 1999-2000, HPCL registered sales of 49.77 million tons of oil, a refining throughput of 32.39 million tons and pipelines throughput of 39.50 million tonnes. The company is ranked 336th in Fortune 500 of 2007 with total turnover of Rs. 91,448.03 crores and profit of Rs. 1,571.17 crores which was Rs. 405.63 crores in 2005-06. Detailed study of these Oil companies would be considered in Chapter IV.

**Gas Authority of India Limited (GAIL):**

Gas Authority of India Limited was set up in 1984 and is the largest natural gas processing, transmission and distribution Company in India. The Company owns and operates a network of over 4,400 kilometers of pipeline in all the four regions of the country, supplying about 62 Million Standard Cubic Meter Gas Per Day (MMSCMD), as a fuel to power plants for generation of about 4500 MW of power, as feed stock for gas based fertilizer plants. Gas transmission and distribution for Motor Spirit (MS) have been the bulk of business as Gas Authority India limited as of today, followed by gas processing for LPG production.
Gas Authority India Limited has seven plants in LPG production in various parts of the country with a total design capacity of over one mtpa. Especially Jamnagar- Loni pipeline is 1240 k.m. long, world’s longest exclusive LPG pipeline with a capacity to carry 1.75 Million Metric Tonne Per Annum (mmtpa) of LPG per annum passing through Gujarat, Rajasthan, Haryana, Delhi and U.P.

Oil India Limited (OIL):

Oil India Limited, a national upstream oil company was incorporated in 1959 and engaged in exploration of crude oil and natural gas with 2\(^\text{nd}\) share of Burma oil company and Assam oil company and 1/3\(^\text{rd}\) share of Government of India by July, 1961. Oil India became a Joint venture company with equal share of government of India. On 14\(^\text{th}\) October 1981, Oil India became an Indian government enterprise, a wholly owned public sector undertaking.

Oil India Limited is a producer of crude oil and natural gas from its oil fields in Assam and Arunachal Padesh and natural gas from its gas fields in Rajasthan. It also produces LPG in its recovery plant at Duliajan, Assam.

Apart from the Government oil companies, various private companies entered in the area of petroleum
exploration, production and marketing such as: Reliance Petrochemical Corporation Limited, Essar etc. Indian Oil companies tries hard and honestly at their own with other countering partners to satisfy increasing demands of these product day by day. Since India is not self reliable in production of these products, most of products would have to be imported. Therefore, it becomes necessary to distribute these products so as to meet requirements of consumers. More attention should be given on marketing of these products as it plays crucial role in almost every ones life.

**Marketing and distribution of petroleum products in India:**

Oil companies through a network of storage and distribution facilities do marketing of petroleum, which includes installations, depots, LPG bottling plants, Airfield Stations (AFS), Retail Pump out Lets (RPOs) and sales offices spread across the country. Marketing of petroleum product in India was started right from 1882 with the supply of kerosene by Standard Oil Company. Before independence the India’s economic and industrial policy was closely related with that of British policy. Apart from other firms those were
engaged in marketing of petroleum products in India; Burma-
Shell, the major British firm together with its small subsidi ary, the Assam Oil Company dominated the whole market. This situation was prevailing till 1960. After that the
government owned Indian Corporation entered in market and
rapidly developed the distribution network. An agreement was
evolved between the corporation and government of India, to
set up new refineries in India. Standard vacuum, later known
as Esso and Caltex-both American oil companies appeared in
Indian market.

India was depending on foreign Oil Companies for the
import and distribution of all petroleum products in the
country. After independence due to the urge and self-
sufficiency and for avoiding foreign oil companies’
extoration, compulsion was built upon government to
formulate and implement Indian oil policy. According to
resolution of 1946, petroleum industry was in the category of
strategic, where basic industries were trying to get established
and managed exclusively in the public sector. The demand of
foreign oil companies was that the oil industry should be
exclusively preserved for private enterprises. Very soon both
the parties realised that rigid and extreme approaches would not meet the realities of the day. International oil companies sensed that if they were to stay in Indian oil market they must change their policies, while Indian government could understand that if oil supplies were to be kept flowing for the essential needs the country should make some compromises with the oil companies. But at the same time found ways of escaping from their monopoly and tried to build up our own independent oil industry and trade.

As far as self-sufficiency is concerned of petroleum products, all the major oil companies played vital role, also Government of India support them for progressive advancement in the development process. It was seen that India was dominated by British Oil Policy and Burma Shell with Assam Oil Company for long time, after that government introduced Oil and Natural Gas Corporation (ONGC) which rapidly developed and expand its network throughout India and contributed significantly in the needs of nation. Though India tries hard for self sufficiency in petroleum products but still it looks miles ago because rate of growth in this sector is not observed so faster. Another reason behind that is India has
to follow only those policies which are correlated to International oil companies. As International oil companies make direct or indirect effects on Indian economy especially concerned to these products therefore, it is better to have look upon marketing policies and nature of International oil companies.

**International Oil Companies along with Organisation of Petroleum Exporting Countries (OPEC):**

Each of these companies operates through hundreds of affiliates and subsidiaries, spread all over the world, and participates in almost every conceivable kind of activity associated with the oil industry- from exploration, production, refining, transporting, to marketing of oil products. Each of these companies is large enough to be classified among the top thirty joint stock organizations of the world, and topping the list of these companies-standard Oil Company New Jersey-is the largest businesses organization of the world in terms of assets of the tune of $13,887 million. Five of these international companies are of United States origin-Standard Oil New Jersey, Gulf Oil Corporation, Texas Oil Corporation, socony Mibil Oil Company, standard Oil Company
California, one British-Dutch-Royal Dutch shell, and one British-British Petroleum. Each of these major oil companies, with the exception of Gulf Oil Corporation contributed, to the progress and development of the Indian oil industry.

The importance of the majors to the Indian oil industry can also be seen from their control over the production centers, which are geographically close to India, particularly those in the Persian Gulf area. Except during the periods of price wars, which are characteristic of an oil geopolitics market structure, these major companies have always tended to pursue a uniform price policy and an agreed market sharing arrangement among them. Both the actual amount of oil produced from a particular source and the actual amount sold to a particular market, by any of these international oil companies, performed as per terms and conditions of agreement or understanding existing among them. During 1930s these agreements were formalized into written documents, although in other periods the majors have preferred to rely on their tacit understanding.

In fact, all oil producing countries are exporting their excess amount of oil to other countries like India and other
countries of Asian and African continents. But it is interesting to see that some of the countries like USA do not possess plenty amount of oil though it plays very important role in oil exporting. This happens because of its technical assistance given to those countries that have ample amount of oil but weak technically. This way it become necessary to include third party between those countries who are technically sound for production and who actually needs it. Involvement of third party is nothing more than profit purpose, which in turn affects the prices of these products. Consequently, it affects the economy of under developed countries. Therefore policies of International Oil Companies should have to be considered so closely, immediate and effective remedies must be applied to save these countries from severe effects on their economy. So it becomes essential to have an idea about strategies of oil exporting countries.

**Oil Exporting Countries:**

Revenue from oil is still the most important source of earnings about nine-tenths-of the governments of the oil producing countries. The amount of revenue received to Government from payments of oil companies found to be
insignificant in relation to the enormous income generated from oil operations proved the main cause for dissatisfaction among the Governments of those countries. The agreement reached among the companies and government in the early fifties replaced the old system and emerged equal sharing of profits from oil operations among the oil companies and the Governments. The new system came under pressure when the major oil companies reduced the posted prices of crude oil in 1959 and 1960 in order to face the competition of the new comers in the world market, which also reduced Government revenue per unit of oil exported.

The Organisation of Petroleum Exporting Countries (OPEC) was formed in 1960 in order to prevent this downward trend in oil prices and also to improve the bargaining power of the oil producing countries vis-à-vis the major international oil companies. Its membership includes Libya, Venezuela, Indonesia, Iran, Iraq, Kuwait, UAE etc. as the major oil producing countries of the Middle East. Since its inception, this organization scored a number of successes. Although the crude oil prices were declining in the world market, the revenue accruing to the oil producing countries
remained the same as calculated as if, the oil were being sold at posted prices. Because of this discrepancy between the actual prices at which the oil was sold by the oil companies in the world market and the posted prices used for calculating profits, the shares of the Governments in the total profits got exceeded by 50%. The agreement of 1964 enabled the oil companies to deduct fixed discounts (which were far lower than actual discounts) from posted prices, for a limited period, for the purpose of calculating payments to the Governments. However the programme of OPEC in regulating oil production for stability in its prices could not be successful, because of the conflicts of interest among the members of this organization.

A new feature of the current world oil scene is the addition of a number of state oil undertakings in the oil producing countries of the Middle East. In most countries new concession agreements proved fruitful for the partnership of the state undertaking in oil production and refining. Similarly, a number of non-major oil companies took part in oil exploration under conditions highly attractive from the point of view of the oil producing countries. In this new
arrangement, the foreign partner had to bear the entire risk of oil exploration subject to condition that once the oil deposit was located, the state oil organisation was allowed the option of a half share in the producing organisation in return for payment of the proportionate amount for exploration expenses in installments. Although the aggregate production under these state organisations is insignificant, this is likely to grow in future. On the contrary parts from exporters, numbers of countries are under the group of importers who need these products for various purposes. Following paragraph is an attempt to reveal various oil importing countries and their functioning.

**Oil Importing Countries:**

The oil importing countries of the world can be conveniently classified into three groups: (1) those like the U.K., U.S.A. Netherlands, whose interests as importers are overshadowed by their producer interest as mother countries of the large international firms; (2) those like West Germany, U.K., with a large coal industry, which are apprehensive about the prospect of mass unemployment following large oil imports at low prices: (3) consumer countries like Italy, Japan,
India, which are anxious to avoid large foreign exchange payments for oil imports. The countries belonging to the first two groups are, for understandable reasons, less concerned about high oil prices than those belonging to the third one.

The main activities of the relatively more oil-conscious governments of the countries belonging to the third group were associated with refinery construction, as this helped to economise a part of the foreign exchange cost on oil, and to made the economy less dependent on foreign oil supplies. As it will be seen later, this objective of self-sufficiency in refined products, on the part of the oil consuming countries, was in conformity with the refinery location policy of the major oil supplying companies since 1951. But, most of the disputes between the oil supplying companies and the oil consuming countries have been centered on the question of the prices at which crude oil was imported, and the prices at which the oil products are sold in the domestic market by the affiliates of the major oil companies. The increased competitiveness in the world oil market since 1959 has favored the oil importing countries by providing them with a range of choice among the sellers of crude oil, and with a
scope for the diversification of the ownership of the refining industry.

In recent years, the attention of the oil consuming countries of the Eastern hemisphere was drawn to the field of oil exploration with large known oil deposits. Where the prospects of success within the country are considered limited, some of these countries have encouraged their nations to launch similar programme in other countries with large known oil deposit. The success achieved by Arabian Oil, a Japanese-owned company, with limited previous experience in this field, in locating the Khafji oilfield in the Neutral zone, has encouraged Japan to undertake similar programme in other parts of the Middle East and in Indonesia. The Khafji crude was accorded priority in the Japanese market. Both the Italian and the Spanish oil undertakings won concession rights in a number of prospective areas of the Middle East and Africa, although these could not locate any significant deposits.

The state oil undertakings were more or less a part and parcel of the oil industry of many oil-consuming countries, although their influence on petroleum varies form one country
to another. As yet, there has been little attempt to co-ordinate the activities of the oil consuming countries in order to further reduce oil prices, or to discuss matters of their common interest. Where the major oil companies worked on the basis of tacit understandings among themselves supported by the respective countries of origin, and where the major oil producing countries of the third world were capable of taking concerted action through OPEC. On the other hand, there is no similar organization representing the interests of the oil importing countries.

There was also little direct contact between the state organisations of the producing and consuming countries, independent of the international oil companies. An attempt will be made in this study to develop this theme; it is possible to visualize a situation where the producing countries, through direct exchange, would receive satisfactory prices for their crude and consuming countries would pay reasonable prices for their imports, within the framework of a radically reorganized world oil industry structure. Thus availability of Petroleum Products proved to be a mentor to stimulate industrial development.
Conclusion:

Petroleum products are playing an important role in the development of nation; they are a part and parcel of human life. It is so important that became the economic parameter of country. Success of petroleum industry depends on its proper marketing and distribution. For the purpose Government of India established ONGC, IOCL, HPCL, BPCL etc. and also permission were granted to other private companies in this sector. By their joint efforts India is looking positively towards self reliability regarding petroleum products. It is also observed that concern authorities and NGO’s are taking necessary steps and trying to save an ample amount of these products. They are using all means of publicity like TV, Newspapers, and Handbills etc. for creative and effective awareness in saving of these products. Also India have close look upon developments and strategies of International Oil companies, especially OPEC regarding their marketing and pricing policies so as to overcome severe effects on Indian economy.
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