

Chapter I

Introduction

Backdrop

Reforms in Oil Sector have brought out many conundrums. This Sector has borne the initial brunt of the country's reform process which began in 1991. Since then, the reform process has been a roller coaster drive, a few steps forward and a few steps backward. Oil Sector is one such sector in the country, which has kept country's reform process engaged all along, irrespective of politico-ideological affiliation of the ruling party at the Centre. This is one sector, which is closely associated with the country's economy and the sector deeply impacts both the internal and external sectors. This is one of those sectors, which has always attempted to remain relevant to country's mainstream economic pursuit. Therefore, reforms in the Oil Sector is not a pursuit in isolation. A sector with a long value chain, Oil Sector has multiple linkages with the economy and therefore, the reform process has always been a balancing act on multiple fronts.

Oil sector reform has moved alongside the reform process in the economy, as the economy has moved in successive years on the path of development with social justice. Oil sector is an integral part of country's economy. Oil sector is a primary sector to the extent 'Oil and Gas' is produced in the country. That is accounted under 'mining and quarrying' heading in national income accounting. Oil sector is also a secondary sector, to the extent crude oil is refined and lubricating oils are blended and stored all across the country. Refining activity produces refined petroleum products (output) from the crude oil (input) and in the process, adds value and creates income. Oil sector is also in the tertiary (service) sector as it has a long distribution channel. It engages multi modal

transport to carry crude and petroleum products all across the country. Oil sector has a very large and well connected logistics network. Oil sector provides substantial business to port sector, railways and to steel industry and along with others forms a part of the economic infrastructure for the country. Oil sector is a major user of information technology. The contribution of Oil Sector to domestic income (GDP) and national income (GNP) is quite substantial and yet to be computed with its entirety.

Need for the Study

Oil Industry is a subset of energy sector and energy is a key sector in Indian economy. The linkages amongst these three interlinking sets present a complex and dynamic scene, which at times baffles policy makers, regulators and players in the Industry. The reform process being undertaken in the oil sector makes the issues still more complicated. Whatever policy decisions are taken and actions implemented in oil sector have far reaching direct and indirect consequences in other sectors in the economy. Those causes and consequences normally remain beyond the zone of reckoning by any single agency. Some decisions pertaining to Oil Industry have nation wide consequences which may be felt years later. The reform process also has its own inertia of motion and is influenced by forces from within and outside the country. Any decision taken for Oil Sector has a crucial bearing on the national economy. Therefore a study of Oil Sector has got an importance that can hardly be overemphasized.

The problems of reforms in the oil sector apparently are that: (i) the reform process has been protracted; (ii) much promised liberalization and privatization really did not happen on the ground; (iii) prices of petroleum products appear to be decided on political expediency; (iv) the market for some products like LPG continues to suffer from the syndrome of scarcity and rationing; (v) the country's energy security is endangered; (vi) subsidy in petroleum products hardly reaches the targeted consumers; (vii) the unconstrained fossil fuel consumption is aggravating the greenhouse emission; (viii) air quality in large cities is polluted to an extent that is affecting the quality of life; (ix) public sector oil companies are caught between the economic efficiency and socio-political obligation; (x) whether Indian customer is getting the best service at an affordable price?.

One wonders: Is reforms in Oil Industry real or rhetoric? Are the changes taking place on the surface or these are of substance and are of enduring nature? One is not sure whether the reform process in oil industry is a boon or a bane. Can there be a better solution?

Exhibit - 1



Has reform process in hydrocarbon sector been abandoned; as it did not serve the intended purpose?

Objectives

The thesis 'Oil Sector Reforms in India: Evolution, Issues and a Possible Roadmap for Optimizing Growth' centers around two themes:

- Reforms in downstream hydrocarbon sector in India
- Contribution of oil sector reforms to the country's economic growth

Keeping the above two central themes in view, the study would aim to analyze:

1. Linkage between oil industry and the economy, in the light of India's planned development process and the economic reform process of last fifteen years
2. Oil industry's role in country's social welfare

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3. Taxonomy of economic reforms
4. Taxonomy of reforms in oil sector
5. Comparison between the above two, with respect to the measures, process and impacts
6. A roadmap for oil sector reforms for the XI Five Year Plan period

Hypotheses

The study would test the hypothesis that *reforms in downstream hydrocarbon sector are in line with the reforms in the national economy.*

A supplementary hypothesis to be tested is that *oil industry reforms (in the downstream segment) have contributed to the results of the national economic reforms.*

Methodology

Nature of Study

The study is an exploratory one in the sense that it attempts to explore the linkages and results of oil industry reforms with the national economy. The method adopted is descriptive type, as it chronicles the developments in oil industry during last fifty years and economic reform process of last fifteen years. The study is analytical to the extent the oil sector and its linkage with the economy have been deciphered and their interrelationships have been brought out. The impacts of variations in policies have been seen through their results on various segments of the economy in a macro economic framework. The study also attempts to test hypotheses to validate the course, direction and measures of reforms in oil sector.

Data Collection

Data used in the study are from two sources: (a) secondary sources; and (b) primary sources

Secondary data are taken from published reports of:

- (i) Ministry of Petroleum and Natural Gas, Government of India
- (ii) Ministry of Finance, Government of India
- (iii) Department of Public Enterprise, Government of India
- (iv) Planning Commission
- (v) Reserve Bank of India
- (vi) Central Statistical Organization (CSO)
- (vii) International Monetary Fund (IMF)

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- (viii) Centre for Monitoring Indian Economy (CMIE)
- (ix) Tata Energy Research Institute (TERI)
- (x) Petrofed

Primary sources of data used in the study are:

- (i) Oil Industry's internal reports
- (ii) Interviews with leading experts on the subject and senior executives in oil industry, both public and private

Method of judgmental sampling has been used in collecting primary data.

Research Process

This thesis is an outcome of research to integrate applications in oil industry to macro economic objectives. As such, the study proceeds to review the reform process in both oil sector and national economy. Statistical works carried out in the research involve compilation of relevant data from primary and secondary sources. There are data pertaining to Indian economy, Oil Industry in India and Oil Industry in world. Specifically Oil Industry data are high order of disaggregated data. While facts and figures pertaining to Indian economy are from secondary source, some of those pertaining to oil industry are from industry sources.

The analysis and recommendations of the study draws heavily on the knowledge and experience of practitioners in the field. Wherever it is related to economics, there views and expressions of economists have been relied upon. Wherever it is oil industry specific, then the insight of 'oil men' have been captured through discussions and interviews.

Tools used in the Study

The study begins with review of literature on the central themes of the thesis, namely: a) Oil Industry and Indian economy; b) the planned development of the country followed by economic reforms; and c) reforms in oil industry.

Besides, the study has used the following tools:

- Relevant time series data have been compiled; desegregation has been done wherever possible, interrelationships have been analyzed, trends have been seen; all these have been done using appropriate statistical methods and results have been interpreted
- Graphics and charts have been used for presentation

Theoretical Framework

Principles of economics constitute the theoretical foundation of the study. Theories pertaining to monetary policy, fiscal policy, trade policy, balance of payment and international trade have been used to examine the implications of oil sector reforms on various macro economic parameters.

Policy directives of Reserve Bank of India and of Ministry of Petroleum & Natural Gas, Government of India have been kept in view while analyzing issues like inflation, foreign exchange reserves, import, export and licensing etc. The intent and impact of those policies have been highlighted to understand the phenomena in the arena of oil industry and macro economy. Macro economic indicators like inflation, fiscal variables, industrial index and capital market indices have been used to study the impact of reforms in oil industry on the country's economy.

The core analytical framework of the study is designed in terms of two taxonomy tables: a) Taxonomy of Economic Reforms and b) Taxonomy of Oil Sector Reforms. These schematics have been drawn to present economic structures, business segment and significant economic activities.

Formulation of corporate strategy is a significant feature of this study. The method adopted in this study is what is applicable for a sectoral strategy (i.e., for oil sector), within the emerging market condition (from monopolistic market gravitating towards competitive market), under an overall policy regime (transformation of a public sector domination to private participation, under democratic framework). This strategy for oil sector has been examined and formulated at national level (macro) and at enterprise (micro) level. Further, industry level issues like demand, supply and pricing have been dealt, along with social objectives.

Another significant feature of this study is its problem solving approach. Problems have been identified in terms of macro economic indicators like inflation, balance of payment deficit, energy insecurity, import dependence and fiscal deficit. These problems have been analyzed and solutions have been attempted through multi-pronged approaches. In the first place, each issue has been looked from finance angle. Second stage, problems have been looked at from managerial perspective. Thirdly, social-political aspects also have been looked into to make it an integrated and holistic problem solving approach. Structural and organizational aspects of oil sector have also been reflected upon, from the internal view of oil industry.

The study has futuristic outlook and reformist approach. Emerging business environment, local as well as global, coupled with the trend in heightened customer awareness and expectations have been factored in

the tenor of the study. The methods adopted in this study are: review of economic history, environment scanning, competition management and customer relationship management.

Exhibit - 2

Methodology

<i>Methods</i>	<i>Domains</i>
● Review	▣ Existing literature
● Chronicle	▣ Oil sector reforms ▣ Development Planning
● Analysis, discovery & integration	▣ Impact of oil sector reforms on other sectors of the economy
● Validation	▣ From worldwide experience
● Application & reflection	▣ My working experience of 20 years in the industry

A multidisciplinary study in 'economics', 'oil marketing', 'national policy planning' & 'business strategy'.

Conclusion

The study at the end comes to take a view about the appropriateness of the direction, course and efficacy of the reforms in oil industry. It then goes on to lay down some recommendations for carrying the reform process further in the downstream hydrocarbon sector.

Chapter Scheme

With the above objectives in view, the thesis has been organized as per the following nine chapters:

1. Chapter I – Introduction
2. Chapter II – The Indian Oil Sector: An Overview – A Select Review of Literature and Emerging Issues
3. Chapter III – Commodity Balance of Petroleum Products in India
4. Chapter IV – India's Development Perspective
5. Chapter V – Downstream Oil Sector Reforms in India – A Historical Perspective
6. Chapter VI – Select Areas of Reform in Downstream Oil Sector and their Implications
7. Chapter VII – Alignment of Oil Sector Reforms with National Agenda
8. Chapter VIII - Roadmap for Downstream Oil Sector
9. Chapter IX – Summary and Concluding Remarks

Chapter I attempts to put forth the need, objectives, methodology and chapter scheme of the thesis with an introductory note on reforms in downstream Oil Industry. Chapter II attempts to place Oil Industry on the backdrop of energy sector and country's macro economy, by analyzing linkages between Oil Industry and other sectors of the economy. This chapter throws up some critical issues of Oil Industry, while making review of literature on the subject. Chapter III outlines the demand supply balances in the oil sector, both of crude oil and refined products. This chapter also brings out the import dependence of Indian oil industry and the issue of energy security. Chapter IV is a treaty on India's economic development with reference to Oil Sector and reflects on the reform process in macro economic sphere. Chapter V chronicles the reforms undertaken in downstream Oil Industry in a historical sequence. This Chapter traces the evolution of reforms, by means of tracking the policy announcements and developments on various fronts in downstream Oil Industry. Chapter VI examines the impact of oil sector reforms on some significant aspects of the country's economy. Chapter V & VI together would examine the impact of the Oil Industry reforms by: a) the changes

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that occurred in policy and b) the changes that happened on performance of the economy. Chapter VII examines how much oil sector reforms have supported the country's economic reforms objectives. This Chapter would explore the alignment in the reform process in oil sector with that in the mainstream economy. Chapter VIII outlines medium term outlook and challenges for oil industry and recommends action plan to take the reform process further both at (macro) economy level and at (micro) enterprise level. Chapter IX makes a summary of recommendations and puts the concluding remarks.

All along the thesis, the developments in downstream Oil Industry and the underlying issues have been analyzed, their causalities have been attempted to be established and some preferred paths have been outlined; keeping the country's planned development objectives in view.

A significant finding of this study is that oil sector reforms in India were very much supportive of national economic policy reforms. What is remarkable is the *sui generis* nature of Indian experience. Reforms in oil sector have moved hand in hand with national economic reforms. Oil sector is purposefully engaged in keeping the nation's wheel running on the path of reforms. It of course has before it the uphill task of providing adequate fuel at affordable price for a growing economy within the framework of sustainable development. Therefore the Industry has to continually find new and innovative paths to operate in increasingly global and growing economy. This thesis at the end provides a possible roadmap for that.
