ANALYSIS OF FINANCIAL PERFORMANCE OF SELECTED PUBLIC SECTOR OIL AND GAS COMPANIES IN INDIA

SYNOPSIS

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Introduction to and Rationale of the Study

The public sector enterprises in India have been playing a crucial role in the industrial development of the nation since after its independence. There has been a continuous drive on the part of the Government of India to set up public sector enterprises (PSEs) like Steel, Railways, Oil and Natural Gas, Telecommunications, Power Generation, Defense, Hydrocarbons and others in the strategic and core sectors of the economy with the noble mission to accelerate the growth of the economy in order to achieve a self-reliant economy. Along with other strategic industries, the emphasis was given on the development of energy sector particularly the oil and natural gas sector which plays a vital role in promoting, accelerating and sustaining industrial development of the country and accordingly the Government of India made huge investment in public sector enterprises engaged in producing, refining and selling of petroleum oil and other petroleum products.

The adoption of liberalization and privatization in July 1991 put much emphasis on organizational efficiency and effectiveness that led the Government to keep the Indian oil and gas sector under strict vigilance by introducing stringent regulatory process on the said industry. The oil and gas industry in India is particularly favorable for foreign investment because the industry is one of the fastest growing segments and it has shown a staggering growth rate around 13 per cent in the recent past. Apart from the tremendous growth rate in the Indian oil and gas industry today, it also boosts technology of international standards, easy availability of infrastructure at very cheap rates; high demands for petroleum products and increased spending habits of the middle-class people, all these factors make investments in the said industry an attractive proposition for foreign investors.

The Indian oil and gas sector is one of the six core industries in India and has vested significantly forward linkage with the entire economy. India has been growing at 8 9 per cent annually and is committed to accelerate the growth memorandum in the years to come. This would translate into India’s energy needs growing many times in the years to come. Hence, there is an emphasized need for wider and more intensive exploration for new finds more efficient and effective recovery, a more rational and optimally balanced global price regime as against the rather wide upward fluctuations of recent times and a spirit of equitable common benefit in global energy co operation. Considering the high priority of our Government to enhance energy security of country and making petroleum products available to common man at affordable
prices, Ministry of Petroleum and Natural Gas has adopted multi-pronged strategy. Stable crude oil prices are the first requirement for sustained economic development of our country. During the last 4-5 years, the prices of crude oil in International Market have been on a roller coaster ride creating uncertainty. India imports nearly 70 per cent of its crude oil requirement with a huge outflow in foreign exchange. Therefore, it is extremely important to ensure that the domestic oil and gas companies are continuously striving to improve their performances in order to save the vast amount of foreign exchange, which is being spent on the imports of crude oil and various petroleum products. This sector plays a pivotal role in the country’s rapid economic growth by contributing over 15 per cent of the Gross Domestic Product (GDP). It is also one of the largest foreign exchange earners contributing about 17 per cent of the total exports from India. Oil accounts for about 34 per cent of India's total energy consumption and has been growing gradually as a share of the country’s fuel mix in recent years.

The study has been conducted to measure and analyze the financial performance of selected public sector oil and gas companies in India during the study period from 2000 01 to 2011 12. A comprehensive analysis regarding the profitability and efficiency in total cost management, liquidity management, capital structure and leverage, managerial efficiency in asset management, contribution to Government Exchequer in the forms of interest and dividend and tax and earnings, internal resource generation in the forms of depreciation, deferred revenue expenditure and retained profits, value addition in the forms of remuneration paid to employees, remuneration paid to capital providers, Government taxes and amount retained for its maintenance and growth, etc. have been done to make comments and draw conclusions regarding the financial positions of the selected public sector oil and gas companies in India during the study period. A comparative statement analysis has been undertaken to compare among the selected companies by considering the various performance indicators to arrive at the proposition regarding the better performing company and to adjudge the causes of better performances and suggestions have been forwarded to improve the overall financial performance of the selected companies under study.
**Literature Review**

There are so many studies conducted throughout the globe regarding the analysis of financial performance of public sector enterprises and especially public sector oil and gas companies in India, some of the most valuable and well-reputed studies are shown below:

Lal (2005) undertook a study on merger and acquisition in oil sector- MRPL experience. The study concluded that MRPL which has just on the verge of becoming a sick unit has been converted into a healthy unit with the strong backing of ONGC.

Chakraborty (2006) made a comparative study on the financial performance of selected public sector petroleum companies in India during the post liberalization period. The selected four companies were Bharat Petroleum Corporation Ltd. (BPCL), Hindustan Petroleum Corporation Ltd. (HPCL), Indian Oil Corporation Ltd. (IOCL) and Oil India Ltd. (OIL). For making a comparative study of financial performances of four selected companies’ viz. BPCL, HPCL, IOCL and OIL, he had mainly used the technique of ratio analysis. The study has been able to bring out some valuable findings which can go a long way in improving the performance of public sector companies in general and petroleum companies in particular.

Anirvina and Ravi (2011) tried to analyze the marketing and consumptions trends in Indian oil industry. Marketing strategies such as product differentiation and marketing skills, pipeline infrastructure, tanks, depots and retain pump network and oil equity were some of the factors that help various public sector oil companies and big private sector players to sustain their market share in the cut-throat competition.

Madan (2007) studies India’s ONGC by providing a brief overview of the company’s size and performance and its importance to India and the impact of government ownership on the company and its strategy for the future.

Sarkar (2011) made an attempt to measure the impact of liquidity management on profitability of ONGC Ltd. during the study period from 2004 05 to 2009 10. The general perception is that top professional management is to design a policy so that risk can be minimized and profitability can be maximized to strike a balance between risk and profitability. The article concludes that out of eight ratios relating to working capital management selected during the study period, three ratios namely CATAR, CASR and ITR registered positive associations with the selected profitability ratio viz. ROCE and the remaining ratios like CR, QR, WCTR, DTR and CTR witnessed negative associations with the ROCE during the study period.
Again, CR and ITR both have significant contributions towards the overall profitability of the company during the study period. The study of working capital leverage (WCL) of the company registered fluctuating trends during the study period. The values of WCL in all the years under study are always less than unity (i.e. less than one). Hence, it may be opined that the increase in the profitability of the company is less than the proportion of decrease in working capital throughout the entire study period.

Mandal and Hossain (2010) assess the impact of working capital management on liquidity, profitability and risk of BPCL during the study period from 1999 2000 to 2008 09. The study also highlights attention on the conceptual side of working capital and made an endeavour to observe and test the profitability and liquidity positions of the company during the study period. In this paper an attempt has been made to examine the relationship between liquidity and profitability as well as between profit and risk. Multiple regression model was used to establish the linear relationship between liquidity and profitability. The study establishes that there was a significant relationship between liquidity and profitability of the company during the given study period. From the study it was also observed that the relationship between risk and profitability was not statistically significant. So far, from the analysis, it may be concluded that the management of working capital is highly useful to ensure better productive capacity, sound liquidity and good profitability of an enterprize particularly the PSEs in India.

Sarkar (2012) studies the impact of total cost management on financial performance of selected public sector oil and gas companies in India during the study period from 2000 01 to 2009 10. For analysis and interpretation of data, he has used rank correlation analysis between CATA and return on capital employed (ROCE) and correlation analysis has been made between the ratios of selected elements of cost to total costs and ROCE during the selected study period. The study of rank correlation analysis reveals that there is a high degree of positive association between CATA and ROCE for ONGC during the selected study period. Out of the six selected companies, liquidity management of ONGC has a significant influence on its overall profitability, but liquidity management of other studying companies have no significant contributions towards the overall profitability during the period under study. The study of impact of TCM on financial performance establishes both positive and negative associations with the selected profitability indicator. Out of the six selected companies, SACTC of OIL has significant contribution towards its overall financial performance both at 1% and 5% significance levels and
SACTC of BPCL has significant contribution towards its overall financial performance at 5% level of significance during the given study period.

Sarkar (2013) made an attempt to measure and comparative analysis of DOL, DFL, Financial Break Even Point and DTL of the selected two public sector oil and gas companies in India viz. ONGC and IOCL during the study period from 1999 2000 to 2008 09. The study revealed that the company IOCL has the higher values of DOL, DFL, Financial Break even Point and DTL as compared to those of ONGC for the given study period. This simply suggests that ONGC may use more amount of external capital in its capital structure after incorporating other factors of setting the optimal capital structure of a firm.

Shah and Bhaskar (2010) made an attempt to highlight the employee related best practices of BPCL. BPCL has many firsts to its credit and has own many accolades for its employee welfare related initiatives. By undertaking the analysis (based on the needs, constrains, alterables and strengths and areas of improvements) greater visibility of the employee related issues of the organization can be highlighted for appropriate organization wide and industry specific interventions. This case gave us a brief insight into the diverse initiatives undertaken by a PSE like BPCL towards employee welfare management. If each of the PSEs put in their best towards ensuring the welfare of their employees, control or attrition and competition with private players in man power related issues would not be a complex task.

Sarkar and Sarkar (2013) examine the impact of working capital management on corporate performance of selected public sector oil and gas companies in India during the study period of 10 years (i.e., from 2000 01 to 2009 10). It also made an endeavour to measure the degrees of associations between the measure of profitability i.e., ROCE and the selected ratios relating to working capital management of the selected companies during the given study period. A comparative analysis has been done to adjudged the better performing company and to identify the causes of better performance. An attempt has also been undertaken for measuring the sensitivity of return on capital employed to changes in the level of working capital. The study concludes that the associations between ROE and PI, UI and EI have registered both positive and negative relationships, but these associations are not statistically significant both at 5% and 1% levels of significance with 8 d.f. during the given study period.
**Objectives of the Study**

The specific objectives of the study are as follows:

(a) To appraise the commendable role played by the selected PSEs in India in the oil gas sector to accelerate the pace of economic growth in India by way of providing requisite supply of petroleum products in the different sectors, providing support to various ancillary industries to grow and flourish, considering foreign exchange earnings through import substitution, etc.

(b) To analyze the capital structure of the selected public sector oil and gas companies and to analyze the operating risk, financial risk and total risk by way of computing the Degree of Operating Leverage (DOL), Degree of Financial Leverage (DFL), Degree of Total Leverage (DTL) and Financial break-even point during the study period from 2000-01 to 2011-12. Long term solvency positions have been analyzed considering various long term solvency indicating parameters of the selected public sector oil and gas companies in India during the study period. The study highlights the proportion of debt capital to total capital in the capital structure of the selected companies in the years to come to sustain and grow in the competitive and changing environment.

(c) To make a comparative analysis of the liquidity position of the companies under study during the study period from 2000-01 to 2011-12.

(d) To assess the profitability position and to identify the factors that account for the high/low profitability of the selected companies under study during the study period from 2000-01 to 2011-12.

(e) To measure the impact of total cost management on financial performance of the selected companies under study during the study period.

(f) To analyze the amounts contributed to the Government exchequer, internal resource generation, value addition, etc. by the selected companies under study during the study period. To analyze the overall financial performance of the selected public sector oil and gas companies in India through some value added ratios during the study period from 2000-01 to 2011-12.

(g) To measure the efficiency of asset management of the selected companies under study during the study period from 2000-01 to 2011-12.
(h) To suggest appropriate measures for improving the financial performance of the selected companies under study during the study period.

**Research Methodology & Data Base**

The data which have been used in this study have been collected from secondary sources i.e. the published annual reports of the selected companies under study, various reputed journals, e-journals from UGC-Inflebinet centre, various reputed books on finance and Government reports, etc. “Capitaline 2000” database have also been used for procuring data. For the purpose of the study internet surfing has been used for procuring the latest and requisite information and SPSS statistical package has also been used for statistical computation purpose. For analyzing the data managerial tools like percentages, averages, ratios and statistical techniques like simple correlation analysis and rank correlation analysis, etc. have been used. To test the significance of the results of the empirical study statistical test viz. ‘t’ test has been applied in appropriate places. Wherever possible, diagrams, graphs and charts have been presented to give an eye view of the situation. After the analysis and interpretations of these data, suggestions have been forwarded regarding the capital structure and leverage ratios, short-term liquidity, profitability, efficiency of asset management, efficiency in total cost management, contribution to the Central Exchequer, internal resource generation and value addition, etc. of the selected companies under study.

Out of the oil and gas companies operating as PSEs in India, six companies are selected after careful examinations of their operations, paid up capital, organization structure, earning capability and market capitalization, etc. The six companies that have selected are Oil and Natural Gas Corporation of India Ltd. (ONGC), Oil India Limited (OIL), Indian Oil Corporation Ltd. (IOCL), Bharat Petroleum Corporation Ltd. (BPCL), Hindustan Petroleum Corporation Ltd. (HPCL) and Gas Authority of India Ltd. (GAIL). It may be pointed out that IOCL, ONGC and BPCL are among the Global Fortune 500 Companies List 2011. The study has been concentrated on the analysis of financial performance of the selected public sector oil and gas companies in India individually as well as comparative analysis has been made among the various selected companies regarding their financial performances in the areas of capital structure and leverage, liquidity management, profitability and efficiency in total cost management, efficiency in asset management, internal resource generation, contribution to the central exchequer and value addition, etc. The time period of the study selected to cover a period of twelve years i.e. from 2000-01 to 2011-12.
Scheme of Chapterization

The study has been organized with eight chapters followed by bibliography and appendix. A brief outline of the organization of the study is presented as under:

The first chapter, entitled “Introduction, Objectives, Methodology and Scope of the Study”, elucidating an introduction of the study, the basic idea of Indian Oil & Gas Sector, objectives, data base and methodology, scope, limitation and organization of the study.

In chapter two backgrounds of the selected companies under study, literature review and identification of research gap have been presented.

The third chapter entitled “Analysis of Capital Structure and Measurement of Leverage Ratios and their Implications” describes introduction, financial structure and capital structure, analysis of long term funds and factors affecting the requirement of long term funds. This chapter also deals with the gearing of capital, operating leverage, financial leverage, financial break-even point and total leverage of the selected public sector oil & gas companies in India during the study period from 2000 01 to 2011 12. This chapter also highlights the proportion of debt capital to total capital in the capital structure of the selected public sector oil and gas companies in India in the years to come to sustain and grow in the competitive and changing environment.

Chapter four deals with the Analysis of Performance of Liquidity Management of the selected public sector oil & gas companies in India during the study period from 2000 01 to 2011 12. Traditional measure of short term liquidity reveals a mixed situation of the selected public sector oil & gas companies in India. The major liquidity ratios which have been selected in this study are current ratio, liquid ratio, absolute liquid ratio, current assets sales ratio and current assets to total assets ratio and performance indices which have been considered are performance index (PI), utilization index (UI) and efficiency index (EI). In this chapter an attempt has been made to measure the impact of working capital management on profitability by computing the associations between the selected measures relating to the working capital management and return on capital employed (ROCE) during the selected study period. In this chapter an attempt has also been undertaken to throw some light on the efficiency of selected performance indices of the selected public sector oil and gas companies in India during the study period from 2000 01 to 2011 12.
Chapter five entitled “Analysis of Profitability and Efficiency in Total Cost Management of Selected Public Sector Oil and Gas Companies in India” deals with the introduction, concepts of profitability and efficiency, analysis of profitability in relation to sales revenue as well as in relation to investment and relationship between liquidity and profitability of the selected companies under study during the study period from 2000 01 to 2011 12. A comparative study has also been undertaken regarding the financial performances of the selected public sector oil and gas companies in India to draw conclusion. This chapter also emphasizes the impact of total cost management on financial performance of the selected public sector oil and gas companies under study during the study period from 2000 01 to 2011 12.

Chapter six presents the analysis of the efficiency of asset management of the selected public sector oil and gas companies in India for the study period from 2000 01 to 2011 12. This chapter concentrating on the study of associations between the selected ratios relating to efficiency in asset management (viz. FATR, TATR, WCTR, ITR, DTR and CTR) and profitability ratio (measured in terms of ROCE) of the selected public sector oil and gas companies in India during the study period from 2000 01 to 2011 12.

Chapter seven deals with the performance analysis through Internal Resource Generation, Contribution to the Central Exchequer and Value Addition by the selected public sector oil and gas companies in India during the study period from 2000 01 to 2011 12. Financial performance has been analyzed by some value added ratios of the selected public sector oil and gas companies in India during the study period.

The last and final chapter deals with the presentation of the summary of the study, suggestions and conclusion of the study. The findings in respect of capital structure, leverage and their implications show that the associations between DOL, DFL and DTL and ROE are statistically significant in case of the companies IOCL and GAIL (under Spearman’s and Kendall’s measures), in case of BPCL and HPCL (under all the three selected measures) and in case of OIL the association between DOL and ROE are statistically significant (under Pearson’s measure) during the study period from 2000-01 to 2011-12. The comparative study reveals that IOCL has the higher values of financial break-even points and OIL has the lower values of them as compared to other companies under study during the said study period, that mean management of IOCL uses more amounts of external capital and management of OIL employs lesser amounts of external capital in the capital structure as compared to other companies under
study during the study period from 2000-01 to 2011-12. Again, the comparative analysis reflects that both BPCL and IOCL are employing higher amounts of external capital and both ONGC and OIL are employing equity oriented capital structure for the selected study period. The study also reveals that current ratio of OIL (under all the three selected measures) and CASR of GAIL (under all the three selected measures) have the significant influences on the returns of owners’ equity during the study period. The study of index analysis shows that the association between EI and ROE of IOCL (under Pearson’s measure) has the significant influence on the return of its owners’ equity during the study period. As far as the study of internal resource generation is concerned, it is revealed that ONGC, on an average, has the highest amount of generation of internal resource (i.e. Rs. 9529.60 crore) in the forms of depreciation, deferred revenue expenditure and retained profit and HPCL, on an average, has the least amount of generation of internal resource (i.e. Rs. 1605.92 crore) as compared to other companies under study during the study period from 2000-01 to 2011-12. The study showing the amount contributed to the central exchequer highlights that BPCL, on an average, has contributed highest amount (i.e. Rupees 96155.23 crore) to the central exchequer in the forms of corporate tax, excise duty and dividend and interest etc. and OIL, on an average has contributed least amount (i.e. Rupees 9391.68 crore) to the central exchequer as compared to other companies under study during the study period from 2000-01 to 2011-12. The study of value addition reflects that ONGC, on an average, has the highest amount of value addition (i.e., Rs. 23271.86 crore) in the forms of remuneration paid to employees, remuneration paid to capital providers, government taxes and amounts retained by the business enterprise for its maintenance and growth and HPCL, on an average, has the least amount of value addition (i.e., Rs. 7485.107 crore) as compared to other companies under study during the study period from 2000-01 to 2011-12.

Based on the study and analysis of the selected PSEs under oil & gas sector, necessary conclusions have been drawn and suggestions have been forwarded for further study and research. It is thus observed that the selected public sector oil and gas companies in India have been rendering their commendable performances in the overall economic development of India to achieve self-reliant economy as far as possible. However, it is expected that the public sector oil and gas companies should run and operate their business activities in a more compact manner to significantly contribute to the central exchequer for raising necessary fund for public expenditure programmes to be undertaken by the Government of India to accelerate the pace of
socio-economic growth process in the country to alleviate poverty and to eliminate the regional disparities in the economy, etc.

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