Chapter VIII
FINDINGS AND SUGGESTIONS

This chapter summarizes the major findings and offers a few suggestions to improve the financial performance of the oil and gas companies in India.

Findings

The main findings of the study are listed below under the following heads.

1. Evolution of oil and gas companies in India and profile of the selected oil and gas companies in India
2. Analysis of capital structure
3. Efficiency of fixed assets management
4. Working capital management
5. Evaluation of profitability

Evolution of oil and gas companies and its profile

- In view of the significance of the oil and gas sector for overall economic growth, the Government of India, under the Industrial Policy Resolution of 1954, announced that petroleum would be the core sector industry.

- The oil and gas sector has been predominantly dominated by the Public Sector Utilities, in the last decade or so (especially post NELP), private players have also entered the market with most of them operating throughout the petroleum and natural gas value chain.

- In June 2015, Oil and Natural Gas Corporation gave Rs. 27 bn ($427m) offshore contract for the Bassein development project to Larsen and Toubro.

- The company, HPCL is ranked 327th on the Fortune Global 500 list of the world's biggest corporations of 2015 and IOCL is ranked 119th.

- BPCL has received Maharatna status in 12.09.2017. The company is ranked 280th of the Fortune Global 500 list of 2015.
In May 2014, ONGC moved to Delhi High Court accusing RIL of pilferage of 18 billion cubic meters of gas from its gas producing block in the Krishna Godavari basin. Subsequently, the two companies agreed to form an independent expert panel to probe any pilferage. Reliance achieved a record turnover of Rs. 371,119 crore ($68.4 billion) and net profit of Rs. 21,003 crore ($3.9 billion).

The RIL is ranked 158th on the *Fortune Global 500*, 2015. It is ranked eighth among the top 250 Global Energy Companies by Platts as on 2016.

**Analysis of capital structure**

- The components of capital structure of the selected oil and gas companies are owned funds, minority interest, long-term borrowings and other non-current liabilities. The owned funds consist of the share capital and reserves and surplus and long-term borrowed funds which represent long-term debentures and term loans provided by the various financial institutions.

- The important factors which determine the capital structure of oil and gas companies are trading on equity, retaining control over the affairs of the company, legal requirements, purpose of financing, period of finance, investors' perception, size of the companies and government policy.

- It can be inferred from the analysis of debt-equity ratio that ONGC used larger own funds for operating activities, while IOCL and RIL depended on borrowed funds to some extent for their activities. In the case of HPCL, it was found not satisfactory. The average debt equity ratio of BPCL is 0.63 times whereas HPCL had 1.35 times. It indicates that the HPCL financially depends more on debt.

- The debt equity ratio of ONGC was always much lower than the standard norm during the study period. From the creditors' point of view, the financial
position of the company turned out to be sound throughout the period of the study. It is a scope for the company to rise funds through long-term borrowings. Such a move will certainly benefit the equity shareholders.

- The HPCL was highly geared compared to IOCL, BPCL and RIL. But capital in ONGC has low geared. At the same time, it cannot be said that the company working with owners’ funds, because from 2011-12 to 2015-16, it mainly depended on the outside funds for the long term needs.

- An analysis of the financial leverage ratio of the select oil and gas companies shows that ONGC and RIL depends mainly on the owners’ funds and they have low financial leverage compared to the other selected oil and gas companies and the HPCL mainly depends the third parties funds.

- The net worth of the ONGC was more than 50 per cent on total assets due to the continuous earnings of net profit. A comparative picture of the five select oil and gas companies shows that ONGC and RIL have high average value of proprietary ratio. It indicates the sound financial strength of the concern due to a greater margin of owners’ funds against the outside source of finance and a greater margin of safety for the creditors. HPCL has low average ratio of 19.81 per cent compared to the other selected oil and gas companies.

- The average ratio of net worth to fixed assets ratio of ONGC and RIL was better than the other selected oil and gas companies. HPCL got low average ratio of 0.34 times during the study period. It indicates that the HPCL has not utilized its borrowed funds optimally.

- ANOVA of sources of capital structure reveals that there is some significant difference between the selected oil and gas companies in India in debt equity ratio, capital gearing ratio, financial leverage, proprietary ratio and net worth to total fixed assets ratio over the study period.
Efficiency of fixed assets management

- In the oil and gas companies, the term “fixed assets” has been used for tangible assets, intangible assets and long-term investment. Intangible assets include right of way, software development rights, process licence, intangible assets under development etc.

- The fixed assets turnover ratio of BPCL was not less than 1. It has more average ratio of 5 times, it is higher than other selected oil and gas companies in India. It was inferred that the fixed assets were fully utilized for its better performance.

- HPCL and IOCL also have more average value of fixed assets turnover ratio. Fixed assets turnover ratio of RIL is not at all satisfactory since turnover is nearly 1 times of fixed assets.

- The fixed assets turnover ratio of ONGC was less than one for the last seven years of the period under study. It shows the ineffective utilisation of available resources. The ONGC has very poor average ratio compared to the other selected oil and gas companies in India. Its assets are not utilised for their sales.

- The average value of total assets turnover ratio of the select oil and gas companies except BPCL and HPCL was less than 2 times during the study period and they are not used their assets efficiently. IOCL has low ratio in last few years during the period of study. However the company maintained the ratio between 1.50 times and 2.16 times during the study period. RIL and ONGC have poor ratio and their funds were not utilised properly.

- Comparisons of the selected oil and gas companies in India shows that ONGC and RIL have more than 1 times of average ratio of capital employed to fixed assets. It indicates the satisfactory level. But the other companies
have the ratio of less than one. It indicates the diversion of working capital for long term needs which will affect the solvency position of the companies.

- All the selected oil and gas companies in India under study except ONGC provide depreciation, in case of plant and machinery on the straight line basis. ONGC provide depreciation under written down value method. Up to the year 2013-14 the oil and gas companies followed depreciation policy as per schedule XIV of the Companies Act 1956. After that the oil and gas companies follow part “C” of schedule-II of the Companies Act 2013.

- The selected oil and gas companies have charged depreciation at different rates from one asset to other assets ranging from 3.80 per cent to 31.23 per cent.

- Generally all the oil and gas companies under study have low average ratio of depreciation to gross block, they have provided sufficient depreciation. The very high CV of ONGC and RIL, show that the companies did not follow a uniform policy of depreciation.

- An analysis shows that a considerable portion of sales revenue was consumed by depreciation in ONGC. The average value of depreciation to operating revenue of HPCL, IOCL, BPCL and RIL reached a very small figure. It indicated that the depreciation was not a cost due to the expiry of estimated economic life of the most of the equipment.

- ANOVA exhibits that all the ratios, i.e., fixed assets turnover ratio, total assets turnover ratio, capital employed to fixed assets ratio, depreciation to gross black ratio and depreciation to operating revenue ratio of the selected oil and gas companies are not the same for all the companies over the study years. There is a significant difference in the ratios of the select oil and gas companies in India.
Working capital management

- Inventories, sundry debtors, cash and bank balances, loans and advances, prepaid expenses and accrued incomes are included in the current assets of the select oil and gas companies in India. The current liabilities consist of sundry creditors, short term bank borrowings, outstanding expenses and provisions.

- The analysis of current ratio of the selected oil and gas companies inferred that none of the companies gave adequate security to the creditors as per the norm. The average current ratio of ONGC and RIL was better than the other selected oil and gas companies which have ratio of less than 1. The poor ratio of other companies discloses that the companies are not in a position to meet the day to day operations.

- Quick ratio of all the companies under study was far from the general norm of 1:1 during the period of study. The situation was very critical in HPCL, IOCL, BPCL and RIL. Their ratios indicate that the quick assets were very inadequate to meet currently maturing obligations. It is also worth mentioning here that over the period, there was the increase of the proportion of current liabilities.

- RIL has no negative working capital turnover ratio during the study period except in 2015-16. ONGC also has positive working capital turnover ratio except in 2014-15 and 2-15-16. In these two years of the study period the company has negative working capital due to low investments in current assets and excessive dependence of on current liabilities. HPCL and IOCL, have negative working capital ratio in most of the study period. BPCL has negative working capital turnover ratio over the whole study period.
• The average value of working capital turnover ratio of ONGC and RIL were optimum. The average value of working capital turnover ratio of HPCL and IOCL were 153.99 times and 270.14 times respectively. This very high working capital turnover ratio indicates that the companies did not have enough capital to support its sales growth.

• The analysis revealed that the IOCL has more average value of current assets to total assets ratio compared to the other selected oil and gas companies in India. HPCL and also BPCL have more average value which is less good than IOCL. But ONGC and RIL have very poor average value of current assets to total assets ratio. Whenever the amount of current liabilities more, definitely the working capital of the company will affect these low ratio companies.

• None of the companies gave adequate security to the creditors as per the norm. The companies have suffer from inadequacy of the working capital rather than excessiveness. The shortage of inventories in the oil and gas companies, with some exceptions, was not only threatening, the liquidity but also the profitability.

• The analysis of ratios current, quick, working capital turnover and current assets to total assets among the selected oil and gas companies gave us an indication that the companies except ONGC and RIL are suffering from inadequacy of the working capital in most of the years rather than excessiveness. The ratios that were calculated did not reach the standards accepted by the analysis. In general, the excess liquidity of a company implies the existence of high level of current assets in relation to current liabilities and low liquidity means the inadequate working capital. Based on this, that the size of the working capital is held by the oil and gas companies was inadequate.
The IOCL has very low average inventory turnover ratio of 7.09 times due to the overstocking of inventory and BPCL has more average inventory turnover ratio of 11.18 times due to the shortage of inventory.

The analysis inferred that the collection of debts was satisfactory in RIL. On the other hand ONGC was not serious in collecting the debt maturities. Though the collection periods of HPCL and IOCL were moderate there were no stable credit policies. The too low ratio of BPCL indicates that the company followed a very stringent credit policy. Such a policy may avoid the collection problems, but it severely curtails the sales in turn that it affects the profitability of the company.

All the selected companies have, by and large, held inadequate cash balance to support their operational requirements. Except RIL and ONGC other companies have low ratio due to insufficient of cash balances. ONGC held excessive cash and RIL has more demand deposit. It has also been found out that all other companies who gained low cash in terms of number of days of operational expenses ratio have faced many a time in the past the problem of cash shortage.

Variation in the payment period of IOCL was very low and moderate. It indicates that the company followed a stable policy in payment of creditors. ONGC has high average payment period this is because the creditors’ turnover ratio was very low due to the increase in the amount payable to the creditors it may affect the credit worthiness of the company.

All the oil and gas companies under study except RIL depend to a larger extent on the bank credit for its working capital. The BPCL has excessively depended on the bank credit upto first six years of the study period that is
from 2006-07 to 2011-12. From 2013-14 to 2015-16, the company has low ratio. In this period, BPCL could not depend mainly on the bank borrowings.

- Analysis of working capital shows that the oil and gas companies except ONGC and RIL suffer from inadequacy of working capital at most of the times. So the short-term solvency of the oil and gas companies was not sound. The diversion of short-term funds to the long-term needs was the practice in all the oil and gas companies except in ONGC and RIL. The ONGC followed lenient credit policy. The companies except ONGC and RIL held inadequate cash balances. In financing working capital, all the oil and gas companies under study except RIL made excessive use of bank borrowings.

- ANOVA exhibits all the ratios of working capital, i.e., current, quick, working capital turnover, current assets to total assets, inventory turnover, average collection period, cash in terms of number of days operational expenses, average payment period and short term bank borrowings to inventories of the selected oil and gas companies are not the same for all the companies over the study period. There is a significant difference between the select oil and gas companies in India.

**Evaluation of profitability**

- Net profit margin of the selected oil and gas companies in India reveals that HPCL, IOCL and BPCL have low average value of net profit margin ratio and also they have a fluctuating trend. Further the analysis reveals that these companies incurred higher cost of exploration and incurred more cost for transportation of petroleum products and heavy burden of interest.

- The study reveals that the average value of operating ratio of ONGC was 78 per cent. All the other companies have more than 90 per cent average operating ratio. It indicates that all the companies did not achieve the good
performance even that has heavy investment on fixed assets. Lack of identification of crude oil in land, struggle/delay in getting government approval to form oil-well, lack of good machinery maintenance, poor efficiency of machines, using old technologies, less control on wastages, lack of public support to take crude oil from land etc are responsible for the high operating expenses of oil and gas companies.

- Average ratio of return on assets reveals that the performance of ONGC was highly satisfactory. It has more average ratio of return on assets. The other selected oil and gas companies have positive ratio but they do not concentrate to improve their efficiency to increase their operating profits.

- Analysis of return on capital employed shows that the performance of the select oil and gas companies was satisfactory. ONGC, BPCL, IOCL and RIL stands at first, second, third and fourth place. But HPCL has lowest average value. It stands at the fifth place among the five selected oil and gas companies in India.

- RIL has highest average earnings per share and all the companies have moderate earnings per share. It does not exhibit a particular trend in the selected oil and gas companies in India.

- ANOVA exhibits all the ratios of profitability, i.e., operating ratio, return on assets, return on capital employed and earnings per share of all the selected companies have some significant difference between the selected companies over the years.

- Analysis of multiple regressions reveals that in the case of ONGC, all the independent variables debt equity ratio, financial leverage, fixed assets turnover ratio, depreciation to gross block ratio, have a negative effect on the profit margin ratio except current ratio and current assets to total assets ratio.
In the case of HPCL, all the independent variables have a negative effect except depreciation to gross block ratio and current ratio. In the case of IOCL, all the independent variables have a negative effect except fixed assets turnover ratio. In the case of BPCL, all the independent variables have a negative effect on the profit margin except depreciation to gross block ratio and current ratio. In the case of RIL, all the independent variables have a negative effect on the profit margin ratio except current ratio and current assets to total assets ratio.

- Analysis of value added shows that the largest share of value added of ONGC has gone to the reinvestment followed by the government, provides of debt capital and to the employees. Thus it can also be inferred that the company had succeeded in adding more value towards reinvestment. In the case of HPCL, the largest share has gone to the depreciation followed by retained earnings, providers of capital, employees and government. Analysis of IOCL reveals that the largest share of value added has gone to re-investment followed by the providers of capital, employees and the government. It may be concluded that the overall performance of the company was satisfactory during the study period.

- Analysis of value added of BPCL shows that the largest share of value added had gone to the depreciation followed by retained earnings, providers of capital, employees and government. The analysis has observed that the more value of total value added of RIL had retained in the business during the whole period of the study. The proportion of dividend varied between 34.44 per cent and 50.10 per cent. It was revealed that the company has transferred more amounts to reserve and surplus every year during the period of study but in 2008-09 the amount of retained earnings has decreased in the business. However the overall condition of company is better.
The overall analysis of value added statements of the selected oil and gas companies reveal that the value added (as percentage of revenue) has registered a fluctuating trend during the study period. The reason for the lower percentage of value added may be found in larger third party purchases due to the scarcity of the crude oil. The distribution of total value added among various participants of the oil and gas companies shows that the highest proportion of value added goes to the depreciation, retained earnings and to the government.

Analysis of multiple regression reveals that in the case of ONGC, all the independent variables financial leverage, depreciation to gross block ratio, current ratio, current assets to total assets ratio have a positive effect on the value added except debt equity ratio and fixed assets turnover ratio. In the case of HPCL, all the independent variables have a negative effect except depreciation to gross block ratio and current ratio. In the case of IOCL, all the independent variables have a negative effect except fixed assets turnover ratio. In the case of BPCL, financial leverage, depreciation to gross block ratio, and current ratio have positive effect and debt equity ratio, fixed assets turnover ratio, and current assets to total assets have negative effect on value added. In the case of RIL, all the independent variables have a negative effect except current ratio and current assets to total assets ratio.

Suggestions

On the basis of the observations relating to the study, the following measures are suggested to improve the financial management of oil and gas companies in India.

1. The HPCL should take necessary steps to improve its long term solvency position of the company. For that it should revise its policy to increase the individuals in equity participation.
2. Except HPCL and BPCL, all other selected companies should take necessary steps to use their assets efficiently.

3. Except ONGC, all the other selected companies have to take necessary steps to replace the old assets. They should purchase the advanced model of fixed assets.

4. To maintain the short-term solvency at optimum, all the companies may try to discharge the current obligations in time and increase the long-term sources for financing their permanent needs.

5. Oil and gas companies have to take necessary steps to improve the working capital through the increase of the investment in current assets and to decrease the current liabilities.

6. HPCL and BPCL should follow stable credit policy to maintain the optimum collection period.

7. The IOCL should take necessary steps to maintain the cash balances at least for it is the need for a day.

8. Oil and gas companies should take necessary steps to reduce the costs and improve the turnover to increase the net earnings. In addition the interest burden may be reduced by avoiding diversion of funds.

9. Except ONGC and RIL, all the other selected oil and gas companies should concentrate to improve their efficiency to increasing their operating profits.

10. The companies should try to reduce their cost of bought-in goods and services to maximize their total value added.

11. The companies have to take necessary steps to strengthen the fixed assets by modernization.

12. Diversion of working capital is to be avoided, for which the long-term funds are to be enhanced to support atleast the long-term requirements.
13. The company should follow a rationalized credit policy towards all kinds of customers based on their credit standing and at the same time they should expedite collections.

14. In financing working capital, it is necessary to convert the excessive short-term bank borrowings into term loans repayable in installments.

15. The government is expected to come out with a product pricing policy, and has to give some direction on whether and how the imbalance can be corrected and guides the investment outlook for the oil based public sector undertakings.

16. Keeping in view the needs of the society, the oil and gas sector was made open to the private participation following the announcement of the New Industrial Policy on 24th July 1991. If positive steps are taken by the companies and the government accepts the suggestions of the study, it will not only benefit the government and the companies but also the society at large.

Scope for further study

The following are the areas of further research which could be pursued by the interested researchers.

1. Inflation accounting approach to the management of the finance in the oil and gas companies.

2. A study of the materials management in the oil and gas companies.

3. A study of the management information system in the oil and gas companies.

4. A study of the organizational structure and accountability in the oil and gas companies.

5. The researcher can elaborate his study based on primary data.

6. The managerial and operation performance can be taken for further study.

7. Studies may be conducted to examine the impact of disinvestment in public sector undertakings.
8. The study will open up ample scope for further research in the areas of human resource, marketing, corporate social responsibility, market value addition, shareholders’ value addition, employment generation, foreign exchange earnings.