



An Analytical Study of Liquidity in Selected Oil and Gas Refineries in India.

KEYWORDS

Liquidity Analysis, IOC, ONGC, HPCL, BPCL, Oil and Gas Refineries.

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ABSTRACT Liquidity means the ability of a firm to meet its short term financial obligations. Liquidity is very important factor in the business. Liquidity is very necessary for survival of business. The firm should have to maintain balanced liquidity position which means that neither excess nor insufficient liquidity. Excess liquidity position may reduce profitability and insufficient liquidity position may create danger for the solvency of business. In present research work, the researcher has made analysis of liquidity in selected oil and gas refineries in India viz., IOC, ONGC, HPCL, BPCL for the period of five years. Researcher has used various accounting ratios and F-test one way ANNOVA table as a statistical tool for data analysis. The main purpose of research work is to measure liquidity position and get idea about financial health and solvency of selected oil and gas refineries of India. The findings show that there is strong liquidity in selected oil and gas refineries of India.

Introduction- Oil and gas sector in India

Indian oil and gas sector is one of the six core Industries in India and it has great impact on entire economy. First oil was found at Makum in Assam in the year 1867. Commercially first oil was found in Digboi in 1889. India is the sixth largest oil consumer in the world. More than 70% of the crude oil is imported by India. India's fuel need is increasing constantly. As Oil and gas sector is very important for the economic growth and development, it is very necessary to manage liquidity position. (Source : The oil and gas sector overview in India 2009)

Liquidity is very necessary for survival of business. Liquidity means the ability of a firm to meet its short term financial obligations. The firm should have to maintain balanced liquidity position which means that neither excess nor insufficient liquidity. In present research work, the researcher has made analysis of liquidity in selected oil and gas refineries in India.

Liquidity Analysis – A Brief Idea

Liquidity is very important factor in the business. Liquidity is very necessary for survival of business. Liquidity means the ability of a firm to meet its short term financial obligations. The firm should have to maintain balanced liquidity position which means that neither excess nor insufficient liquidity. Excess liquidity position may reduce profitability, increase speculation and liberal dividend policy etc. Insufficient liquidity position may create danger for the solvency of business and may create interruption in business operations. In present research work, the researcher has made analysis of liquidity in selected oil and gas refineries in India. Investors also want to know the liquidity ratios and liquidity position of company in which they are going to invest their valuable fund. Good liquidity position of the company shows that company will be running for a long time in the market without facing any problem.

The researcher has formulated below mentioned ratios to analyze liquidity in selected oil and gas refineries viz., IOC, ONGC, HPCL, and BPCL.

[1] Current Ratio = Current Assets/ Current Liabilities

[2] Quick Ratio/Acid Test Ratio/ Liquid Ratio = $\frac{\text{Current assets} - \text{Inventory} \& \text{Prepaid Expenses}}{\text{Current Liabilities}}$

Review of Literature

Bhabatosh Banerjee (1982) has measured the relationship of liquidity with profitability in his study on "corporate liquidity and profitability in India, and analyzed the trend of liquidity position of industries of medium and large public limited companies in the corporate sector of India during 1971-78.

Eljelly (2004) recognized the relation between profitability and liquidity. He gave conclusion that the cash conversion cycle was of more importance as a measure of liquidity than the current ratio that affects profitability. The size variable was found to have significant effect on profitability at the industry level.

Reddy and patkar (2004) made study on working capital and liquidity management in factoring to find out the determinants of liquidity and profitability and to study the size and components. They have concluded that the sundry debtors and amount due to creditors are the major components of current assets and current liabilities in determining the size of working capital

Bhunia (2010) has made study on private sector steel companies of India to test the short term liquidity trend of the companies and its effect on the financial performance. A balanced and proper amount of working capital should be maintained in the business for smooth running of the same.

Ramaratnam and Jayaraman (2010) used financial ratios in terms of liquidity, profitability, variability and sustainability to measure the financial performance of Indian steel industry for a period of five years from 2005 to 2010. They came to the conclusion that study reveals that the critical situation faced by the Indian steel industry is due to over capacity and demand slowdown resulting in price cuts.

Importance of the Study

Present research study will be basically helpful to oil and gas refineries to analysis liquidity position and maintain

solventy in the company. This study is helpful to compare the figures of liquidity in selected oil and gas refineries in India and gives idea of financial health of companies.

Objectives of the Study

- To make analysis of liquidity position of selected oil and gas refineries in India.
- To measure financial health and solventy of selected oil and gas refineries in India by using liquidity ratios.

Period of the Study

The present study has been made on the basis of the financial data for the period of last five years i.e. year 2009-10; to year 2013-14 of the sample companies. .

Selection of the sample unit

Universe of the study include all companies established in India under the companies act 1956. From the above mentioned universe, the researcher has randomly selected four Oil and Gas refineries IOC, ONGC, HPCL, and BPCL for liquidity analysis.

Sources of the data collection

The present research study is mainly based on the secondary data collected from the Annual Report of IOC, ONGC, HPCL, and BPCL. Researcher has used various news papers, magazines and websites for batter reliability and authenticity.

Tools and Techniques for Data Analysis

Analysis of Financial Data is done through Ratio analysis and test of hypothesis (F-Test one way ANNOVA Table). Using MS excel for calculating Test of Hypothesis.

Hypothesis of the Study

H₀: There is no significant difference in Current Ratio between the Sample Units and within the sample units during the study period.

H₀: There is no significant difference in Quick Ratio between the Sample Units and within the sample units during the study period.

Data Collection and Statistical Analysis of liquidity

[1] Current Ratio

Table No : 1 Ratio of Current Assets to Current Liabilities (in %)

| Companies | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
|-----------|---------|---------|---------|---------|---------|
| IOC | 0.76 | 0.80 | 0.83 | 0.84 | 0.81 |
| ONGC | 1.39 | 1.17 | 1.13 | 2.37 | 0.97 |
| HPCL | 0.74 | 0.77 | 0.66 | 0.68 | 0.73 |
| BPCL | 0.72 | 0.65 | 0.76 | 0.78 | 0.87 |

(Source : www.moneycontrol.com)

Table No : 2 Analysis of Variances (ANOVA)

| Sources of Variations | SS | DOF | MS | F _{cal} | F _{tab} |
|-----------------------|----------|-----|----------|------------------|------------------|
| Between the Groups | 0.31223 | 4 | 0.078058 | 0.46 | 3.06 |
| Within the groups | 2.563625 | 15 | 0.170908 | | |
| Total | 2.875855 | 19 | | | |

[2] Quick Ratio

Table No : 3 Ratio (in %)

| Companies | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
|-----------|---------|---------|---------|---------|---------|
| IOC | 0.45 | 0.51 | 0.74 | 0.79 | 0.64 |
| ONGC | 1.22 | 1.08 | 1.22 | 2.26 | 0.87 |
| HPCL | 0.43 | 0.44 | 0.52 | 0.71 | 0.57 |
| BPCL | 0.68 | 0.45 | 0.71 | 0.71 | 0.59 |

(Source : www.moneycontrol.com)

Table No : 4 Analysis of Variances (ANOVA)

| Sources of Variations | SS | DOF | MS | F _{cal} | F _{tab} |
|-----------------------|----------|-----|----------|------------------|------------------|
| Between the Groups | 0.63877 | 4 | 0.159693 | 0.87 | 3.06 |
| Within the groups | 2.759525 | 15 | 0.183968 | | |
| Total | 3.398295 | 19 | | | |

Findings of the research Study

Table No : 5 Findings

| Liquidity Ratios | Fcal | Ftab | Findings |
|---|------|------|--|
| 1. Current Ratio • Between the selected companies and within the selected companies | 0.46 | 3.06 | Null Hypothesis H ₀ is accepted so it may conclude that there is no significant difference in current ratio between the selected companies and within the selected companies during the study period. |
| 2. Quick Ratio • Between the selected companies and within the selected companies | 0.87 | 3.06 | Null Hypothesis H ₀ is accepted so it may conclude that there is no significant difference in Quick ratio between the selected companies and within the selected companies during the study period. |

Conclusion

From the data collection and statistical data analysis of selected oil and gas refineries viz., IOC, ONGC, HPCL, and BPCL, the researcher may come to the conclusion that both hypotheses are accepted. Generally Ideal ratio is 1:1 for current ratio and quick ratio. Researcher found that positions of both the ratios are average but not much sound Except ONGC. There is sound liquidity position in ONGC but other selected companies have to take special steps for improvement of liquidity position.

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