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The Liquidity and Solvency of the Oil Companies, Financial Analysis

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ABSTRACT:

Solvency and liquidity are both terms that refer to an enterprise's state of financial health, but with some notable differences. Solvency refers to an enterprise's capacity to meet its long-term financial commitments. Liquidity refers to an enterprise's ability to pay short-term obligations; the term also refers to its capability to sell assets quickly to raise cash. A solvent company is one that owns more than it owes; in other words, it has a positive net worth and a manageable debt load. On the other hand, a company with adequate liquidity may have enough cash available to pay its bills, but it may be heading for financial disaster down the road. Solvency and liquidity are equally important, and healthy companies are both solvent and possess adequate liquidity. A number of financial ratios are used to measure a company's liquidity and solvency, the most common of which are discussed below.

Liquidity Ratios:

•Current ratio = Current assets / Current liabilities
The current ratio measures a company's ability to pay off its current liabilities (payable within one year) with its current assets such as cash, accounts receivable and inventories. The higher the ratio, the better the company's liquidity position.

• Quick ratio = (Current assets – Inventories) / Current liabilities
= (Cash and equivalents + Marketable securities + Accounts receivable) / Current liabilities

The quick ratio measures a company's ability to meet its short-term obligations with its most liquid assets, and therefore excludes inventories from its current assets. It is also known as the "acid-test ratio."

• Days sales outstanding = (Accounts receivable / Total credit sales) x Number of days in sales

DSO refers to the average number of days it takes a company to collect payment after it makes a sale. A higher DSO means that a company is taking unduly long to collect payment and is tying up capital in receivables. DSOs are generally calculated quarterly or annually.

Solvency Ratios

• Debt to equity = Total debt / Total equity
This ratio indicates the degree of financial leverage being used by the business and includes both short-term and long-term debt. A rising debt-to-equity ratio implies higher interest expenses, and beyond a certain point it may affect a company's credit rating, making it more expensive to raise more debt.

• Debt to assets = Total debt / Total assets
Another leverage measure, this ratio measures the percentage of a company's assets that have been financed with debt (short-term and long-term). A higher ratio indicates a greater degree of leverage, and consequently, financial risk.

• Interest coverage ratio = Operating income (or EBIT) / Interest expense This ratio measures the company's ability to meet the interest expense on its debt with its operating income, which is equivalent to its earnings before interest and taxes (EBIT). The higher the ratio, the better the company's ability to cover itInterest expens.

Liquidity Ratio:

The liquidity refers to the ability of a business concern to meet its currentobligations without any delay.

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Current Ratio:

It is calculated by dividing the current assets by current liabilities. Itmeasures the short term financial condition of the firm. The ratio of 2 to 1 is considered satisfactory for the organization.
Current Ratio = Current Assets/CurrentLiabilities

Quick Ratio:

The quick ratio indicates the relationship between liquid assets and currentliabilities. An asset is liquid if it can be converted into cash immediately. Generally, a quick ratio of 1 to 1 is considered to represent a satisfactory current financial condition.
Quick Ratio = Current Assets – (Stock + Prepaid Expenses) / Current Liabilities

Hindustan petroleum

	Mar'2015	Mar'2014	Mar'2013
Current Ratio	0.61	0.73	0.68
Quick Ratio	0.31	0.57	0.71
Debt Equity Ratio	1.06	2.13	2.36
Long Term Debt Equity Ratio	0.93	1.04	0.65

Bharat petroleum

	Mar'2015	Mar'2014	Mar'2013
Current Ratio	0.83	0.87	0.78
Quick Ratio	0.42	0.59	0.71
Debt Equity Ratio	0.52	1.03	1.42
Long Term Debt Equity Ratio	0.52	0.61	0.33

Indian Oil Corporation

	Mar'2015	Mar'2014	Mar'2013
Current Ratio	0.73	0.80	0.84
Quick Ratio	0.47	0.63	0.79
Debt Equity Ratio	0.73	1.22	1.28
Long Term Debt Equity Ratio	0.48	0.48	0.35

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Table 1: Liquidity Ratio (In Times)

Year	Current Ratio	Quick Ratio
2000-01	0.98	0.83
2001-02	0.66	0.41
2002-03	0.84	0.37
2003-04	0.89	0.44
2004-05	0.89	0.45
2005-06	0.91	0.34
2006-07	0.82	0.29
2007-08	1.03	0.51
2008-09	0.93	0.53
2009-10	0.74	0.43
2010-11	0.77	0.44
2011-12	0.66	0.52
2012-13	0.68	0.71
2013-14	0.73	0.57

Annual Reports of HPCL from 2000-01 to 2014-15

Analysis:

The table no. 1 shows that the current ratio of the company is below the standard norms of the current account ratio i.e. 2:1 and quick ratio i.e. 1:1. In the year 2007-08, the current ratio is recorded highest during the study period i.e. 1.03 and 0.61 is lowest in the year 2014-15. On the other hand in terms of quick ratio the maximum and minimum is 0.83 and 0.29 in the year 2000-01 and 2006-07 respectively. With the help of analysis researcher has found that the liquidity position of the HPCL is not meeting with the standard norms of the liquidity ratio. The figure 1 displays the graph of the current ratio and quick ratio from 2000-01 to 2014-15. On the X-axis the value of ratios are plotted and on the Y-axis. Moreover, the figure indicates the actual position of the current and liquid ratio.

Solvency Ratio: The word „solvency‟ refers to the ability of a concern to meetits longterm debts or obligations.

Debt-Equity Ratio: The debt-equity ratio indicates what proportion of debt and equity isusing to finance its assets. The debt-equity ratio is also known as external to internal equity ratio. Debt-Equity Ratio = Debt / Equity

Interest Coverage Ratio: This ratio measures the firms‟ ability to make contractualinterest payments. It defines the relationship between operating profit or earnings before interest and taxes to fixed interest charges on loan (Khan and Jain 2005).

Interest Coverage Ratio = EBIT / Interest Charges

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Long term Debt-Equity Ratio: It indicates the relationship between long term debt toequity. Long term Debt-Equity Ratio = Long term Debt / Equity

Table 2: Solvency Ratio (In Times)

Year	DER	LTDER	ICR
2000-01	0.55	0.24	0.45
2001-02	0.54	0.21	5.21
2002-03	0.2	0.09	16.38
2003-04	0.22	0.05	51.62
2004-05	0.26	0.02	20.69
2005-06	0.76	0.51	2.67
2006-07	1.1	0.9	5.43
2007-08	1.59	1.19	2.15
2008-09	2.12	1.79	1.53
2009-10	1.84	1.02	3.61
2010-11	1.99	1.1	3.37
2011-12	2.09	0.48	1.55
2012-13	2.36	0.65	1.67
2013-14	2.13	1.04	3

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Analysis

The table no. 2 reveals that the debt-equity ratio recorded highest in the year 2012-13 i.e. 2.36 and lowest is found in the year 2002-03. Moreover, on the basis of research data researcher found after 2006-07 the debt-equity ratio remains above the 1 to 1 ratio. The increasing trend of debt-equity ratio shows that the company is using more debt in the business with some fluctuations.On the other hand, in the case of long term debt equity ratio remains below 2 in times. The highest ratio was recorded in 2008-09 i.e. 1.79. But, in the year 2004-05 the long term debt equity ratio was very low. Which indicates the less used of long term in the business. Moreover, in the case of interest coverage ratio high ratio is considered beneficial for the long term creditors.The ICR was very high in the year 2003-04 i.e. 51.62. It shows a very high interest of payment is made to lenders. Higher ratio attracts more outsider funds. But, in the year 2000-01 the ICR was very low i.e.0.45. Meanwhile, after 2004-05 researcher found that the ICR in very fluctuating mood.

The figure 2 display the graph of the debt-equity ratio, long term debt-equity ratio and interest coverage ratio from 2000-01 to 2014-15. On the X-axis the value of ratios are plotted and on the Y-axis years are shown.

Efficiency Ratio:

Funds are invested in many assets in a business to make sales and generateprofits. And, the efficiency of an assets are managed directly affect the volume of sales. The greater the amount of sale and profit indicates the better management of assets.

Inventory Turnover Ratio:

The inventory turnover ratio shows the efficiency of the firm inorder to production of the firm and selling of its product. It indicates the relationship between costs of goods sold and average inventory. Moreover, a high inventory turnover ratio indicates good inventory management.

Inventory Turnover Ratio = Costs of Goods Sold / Average Inventory

Debtors Turnover Ratio:

A firm sells their goods and services for cash as well as credit.Basically, to sell goods and services in credit is a kind of marketing tools in the hands of the companies. Debtor Turnover Ratio = Credit Sales / Average Debtors

Investment Turnover Ratio:

It defines how efficiently a company is using their debt andequity to generate revenues. Higher the ratio indicates more efficient the company. The company can raise capital in ways one is to issue shares and borrow money from creditors. Debt includes both long as well as short term securities.

Investment Turnover Ratio = Revenues /

Equity + Debt

Fixed Assets Turnover Ratio:

It is an activity ratio that explain how an efficient manner acompany using their fixed assets in generating revenues.

Fixed Assets Turnover Ratio = Net Revenue / Average Fixed Assets

Total Assets Turnover Ratio:

The total asset turnover ratio evaluates the capability of a firmto use their assets to smoothly generate sales.

Total Assets Turnover Ratio = Net Sales / Total Assets

Assets Turnover Ratio:

It defines the value of a company's sales generated relative to thevalue of its assets. The asset turnover ratio often used as an indicator of the efficiency with which a company is deploying its assets in generating revenue.

Assets Turnover Ratio = Sales / Total Assets

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Table 3: Efficiency Ratios (In Times)

Year	ITR	DTR	IVR	FATR	TATR	ATR
2000-01	11.63	76.57	12.93	7.08	4.44	4.77
2001-02	11.05	59.04	12.67	5.98	4.39	4.16
2002-03	9.56	59.11	10.84	7.17	6.05	5.69
2003-04	9.58	55.31	10.95	7.44	5.46	5.89
2004-05	10.63	58.73	11.84	8.15	5.68	6
2005-06	9.18	58.53	10.14	8.23	4.65	5.49
2006-07	11.14	60.42	12.31	7.92	4.47	5.05
2007-08	9.47	63.44	9.47	5.35	3.83	4.4
2008-09	15.31	63.23	15.31	6.22	3.74	4.11
2009-10	9.28	45.87	9.28	4.32	3.28	3.23
2010-11	8.68	52.33	8.68	4.53	3.57	3.78
2011-12	9.17	57.35	9.17	5.37	4.4	4.56
2012-13	12.58	48.64	12.58	5.63	4.49	4.76
2013-14	12.38	42.93	12.38	5.29	4.77	4.79

Annual Reports of HPCL from 2000-01 to 2014-15

The efficiency ratios estimated that how effectively a firm is using its assets. In the case of ITR, a high inventory turnover ratio indicates good inventory management. The ITR is maximum in the year of 2014-15 i.e. 16.75.

The ITR is lowest in the year of 2010-11

Conclusion and Suggestions :

The present study reveals that HPCL came into existence with the objectives of earning profit on one side and rendering the services towards society on the other side. However, an analysis of financial performance shows that the company"s ability to meet its current obligations is not satisfactory. Meanwhile, the management of company should focus on profitability. In the case of profitability ratios researcher found a very high fluctuations.

In the light of above conclusion it is suggested that company should pay attention towards the management of liquidity position also. The current and quick ratios were not found with the standards norms of the liquidity ratio. The company may either increase its current assets or reduce current liabilities. In order to enhance the profitability the management should focus on to control cost of sales and other direct and indirect expenses. Moreover, to improve the operating efficiency of the company the management should focus on turnover ratios.

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