

## A STUDY ON LIQUIDITY MANAGEMENT IN OIL COMPANIES AT INDIAN OIL CORPORATION LTD

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**ABSTRACT:** This article examines the liquidity management procedures of Indian Oil Corporation Ltd. (IOCL), a well-known public-sector organization in the country's oil and gas industry. To evaluate the company's capacity to fulfill short-term commitments and preserve financial stability, the research examines important liquidity metrics such the quick ratio, current ratio, cash conversion cycle, and overall working capital efficiency. It also examines the difficulties faced by the oil industry, such as the price instability of crude oil, the need for large reserves, and the high costs and scope of operations. Each of these issues affects the liquidity of oil corporations. The Research intends to carry out a comprehensive evaluation of IOCL's liquidity status, pinpoint its advantages and disadvantages, and deepen our understanding of efficient liquidity management in the oil and gas sector.

**Keywords:** *Liquidity Management, Indian Oil Corporation Ltd. (IOCL), Working Capital, Current Ratio, Quick Ratio, Cash Conversion Cycle, Financial Performance, Oil and Gas Industry, Short-term Solvency, Corporate Finance.*

### 1. INTRODUCTION

A key component of financial management is controlling liquidity, which guarantees that a business can meet its immediate obligations and run effectively. Liquidity management is crucial in the oil industry because of the high startup costs, high working capital requirements, and vulnerability to fluctuations in crude oil prices worldwide. In order to maintain refinery operations, maintain supply levels, fund significant expenditures, and adapt to shifting market conditions, oil businesses must continuously balance their cash inputs and outflows.

Oil companies have long production cycles, devote substantial money to infrastructure construction, and are impacted by political and environmental challenges. They have sophisticated supplier networks. These traits provide a variety of financial difficulties, thus in order to maintain stability and promote growth, a strong liquidity management plan must be put in place. If you don't keep an eye on your liquidity, you can have trouble borrowing money, making purchases, controlling your fuel supply, and other financial problems. On the other hand, oil businesses can maintain operations, stay competitive, and take advantage of new opportunities if they use efficient liquidity management measures.

Because the energy markets are changing owing to increased competition, stricter laws, and rising technologies, oil companies need to have strong liquidity plans that are in line with their operations. A company's liquidity, efficiency, and general health can be better

understood by examining its working capital turnover, cash conversion cycle, current ratio, and quick ratio.

With an emphasis on preserving short-term solvency while accomplishing long-term financial and operational objectives, this Research assesses the liquidity management of oil companies. The study's findings can be used by oil firms operating in a market that is unpredictable and volatile to improve their liquidity management, strengthen their financial resilience, and make better financial decisions.

- ❖ **Operational stability:** Ensures that the company can quickly and effectively complete its financial obligations, including salaries and supplier payments.
- ❖ **Strategic flexibility:** Helps the company plan for the future, seize opportunities, and keep an eye on capital expenditures in both good and bad times.
- ❖ **Risk mitigation:** Reduces related risks and preserves the stability of monetary value, particularly in an unstable economy.
- ❖ **Investor confidence:** Effective liquidity management is the only way to improve a company's standing among its stakeholders, including lenders and investors.
- ❖ **Compliance:** Following the law is essential in sectors like banking.

## 2. THEORETICAL FRAMEWORK

### TYPES OF LIQUIDITY

A company's cash on hand has a major impact on how effectively and profitably it runs. Effective liquidity management enables you to make well-informed decisions about risk management, investing strategies, and the amount of risk you can afford. There are several types of liquidity, such as



**Market liquidity:** Market liquidity is the capacity to buy and sell goods in a market quickly without materially altering their prices. There are many sellers and buyers in a free market. This makes business interactions easier and faster. On the other hand, in a market with little liquidity, it might be challenging to trade goods quickly without influencing prices.

**Accounting liquidity:** One definition of a company's "liquidity" is its capacity to meet short-term obligations using its available cash. It confirms that the business can turn its assets into cash, or that it has liquidity. It is a crucial indicator of a business's operational effectiveness and profitability.

**Funding liquidity:** The ability of a financial organization to make loan payments when they are due is known as funding liquidity. The bank may have to liquidate assets or take out loans to pay depositors back, process withdrawals, and meet other commitments. Sound financial stability is highly valued by banks and other financial organizations.

**Operational liquidity:** Operational liquidity is the capacity to meet short-term cash flow obligations and pay invoices. Operational continuity is facilitated by making sure the business has enough cash on hand to cover its responsibilities, including rent, utilities, wages, and other operating expenses.

## LIQUIDITY MANAGEMENT STRATEGIES

Liquidity management is a difficult task for treasurers and other financial workers because of the rapid fluctuations in cash flow, the need for accurate forecasts, and the difficulty of conducting business internationally in many currencies. For treasurers, monitoring cash flow and maintaining smooth operations are frequent challenges. They must handle credit issues, keep an eye on both short- and long-term loans, and ensure that investments are safe and easily accessible. There are several ways that liquidity management technologies can benefit your business's cash flow:

**Cash flow forecasting:** Make a thorough cash flow plan and follow it to keep an eye on the money coming in and going out. With a 95% accuracy rate, HighRadius' cash flow forecasting engine can predict even the most unlikely categories, such accounts payable or accounts due. This will help you figure out how much money you'll need and when.

**Optimize inventory management:** To free capital from stockpiles, implement just-in-time (JIT) inventory techniques. You should continuously keep an eye on your inventory levels and make adjustments based on the rate of sales and your anticipated level of consumer demand.

**Streamline accounts receivable:** To speed up the recovery of past-due payments, use automated billing, make it harder to obtain credit, and provide incentives for early payment. If you need money right away, think about factoring or invoice discounting as a temporary solution for your invoices.

**Extend accounts payable:** Agreeing to longer payment terms with vendors is one strategy to extend the length of your capital without endangering your business relationships. Your credit score will decline the longer you put off paying off your bills.

**Optimize debt management:** Restructuring your debt may enable you to obtain lower interest rates or more accommodating conditions for repayment. You can meet your current cash flow needs by making wise use of short-term credit lines.

**Manage capital expenditures:** Making prudent financial decisions is crucial to running your company and should only be done for things that are urgently needed or will quickly pay for themselves. Any needless capital projects should be stopped or put on hold.

**Enhance revenue streams:** To ensure a consistent flow of money, you should diversify and improve your sources of revenue. You should look into possible new markets, goods, or services if you want to boost your revenue.

**Implement cost control measures:** Keep track of and examine your business spending on a regular basis. Cut back on unnecessary spending, bargain for better conditions from suppliers, and simplify processes.

**Maintain a cash reserve:** With the use of cash flow management software, you may establish and maintain a cash reserve to assist you be ready for unplanned costs or a decline in revenue. You can keep an eye on your cash balances in real time using HighRadius' cash control tool. In this way, you will always know how much money you have left. This backup can be helpful when money is tight.

**Leverage financial technology:** With the use of cash forecasting and management solutions, you may automate financial procedures, obtain real-time cash flow information, and make

better decisions. Technological developments can also help identify trends and possible cash flow problems early on.

### 3. LITERATURE SURVEY

Nadir Hajiye (2021): This Research focuses on oil firms and how they maintain their financial stability in the face of market volatility. Researchers discovered that when liquidity management was implemented, businesses' responses to erratic changes in oil prices, geopolitical unrest, and the global economy were most stable. The Research examines case studies of significant oil corporations to find financial measures including cash reserves, financing diversification, and short-term debt optimization. Liquidity planning is a part of corporate finance that affects investment, risk management, and the organization's longevity. The results suggest that having effective liquidity management in place may help oil businesses withstand market shocks, recessions, and shifts in investor confidence. The article argues that proactive liquidity and financial management techniques are essential for a capital-intensive, uncertain company.

Ayman Almeshari (2021): This article examines the effects of oil-related shocks to terms of trade, liquidity generation, and the MENA region's economic development. The Research found that changes in oil prices and trade conditions can have an impact on financial markets, corporate finance, and liquidity. It emphasizes how important liquidity management is to ensuring operational stability, fostering sustainable economic growth, and enabling oil businesses to weather such shocks. The Research concludes that the production of liquidity has macroeconomic effects. This suggests that even in times of market volatility, governments and companies that are adept at controlling their cash flow may maintain investment, reduce market volatility, and stimulate economic activity. Policymakers and corporate executives in the oil industry can use the findings to enhance the financial performance and resilience of their industry against fluctuations in commodity prices.

Ismail Alhassan & Kamrul Islam (2022): This Research examines the financial performance and cash flow of Nigerian oil and gas businesses from 2011 to 2020. We examined the connection between profitability measurements like PAT, ROA, and ROE and liquidity indicators like current and quick ratios using a fixed-effects panel regression model. Businesses that grasp cash flow management can achieve optimal resource deployment, financial stability, and problem mitigation, according to the research. The essay continues by discussing the challenges that oil businesses in emerging nations confront, including their dependence on world oil prices, stringent regulations, and volatile exchange rates. This illustrates how crucial it is to put in place appropriate liquidity controls in order to address these issues.

Faisal Ahmed Almakura, Tsokwa Kweseti Shiaki, Nasamu Gambo, & Rahilatu Ahmad Muhammad (2022): This Research examines how Nigerian oil and gas businesses' bottom lines are impacted by liquidity management, particularly in times of market volatility and downturn. The Research examines the effects of important liquidity ratios (CUR, QUR, and CAR) on profitability measures including ROA and ROE. The article claims that having liquid assets aids companies in a number of financial responsibilities, such as funding operations, taking on lucrative ventures, and lowering financial risks. The document

emphasizes the necessity of strategic liquidity planning. According to this theory, having too much liquidity results in resource inefficiency, while having too little leaves one susceptible to market disruptions. Studies show that the oil and gas sector may be more stable and profitable if finance managers manage their payables and receivables, maximize working capital, and enhance cash flow.

Ayman Almeshari (2023): This Research examines how oil-producing economies should establish liquidity buffers to reduce the risk of trade shocks. This Research examines eleven MENA nations between 2000 and 2019 to see whether oil industry liquidity can be managed to mitigate the impact of volatile global oil prices on GDP growth. The essay claims that when economies and businesses have adequate liquid assets to invest in and grow, they are better able to withstand external shocks. When liquidity is properly managed, economies are more resilient, less vulnerable to changes in oil prices, and more likely to experience sustainable growth, according to data from both the macro and local levels. According to the study, regulatory frameworks that promote cautious liquidity among oil companies can promote economic growth and stability. This Research examines the relationship between corporate liquidity management and national economic prosperity in oil-dependent economies.

Nadir Hajiyev (2024): This Research focuses on how oil firms manage their finances in the face of global price fluctuations, market volatility, and geopolitical concerns. Oil firms employ a wide range of financial techniques to lower risk and accomplish long-term growth. Liquidity management is given top priority for operational resilience. Using an options matrix, this Research examines several solutions to the issue of financial instability. According to the findings, flexible liquidity solutions enable organizations to endure unforeseen fluctuations in revenue and expenses. According to the study, proactive liquidity management and strategic investment planning in volatile markets are not sufficiently addressed by conventional financial indicators. Executives at oil companies who are attempting to protect their companies from external dangers and increase their long-term profits should take note of the findings.

Faisal Ahmed Almakura, Tsokwa Kweseti Shiaki, Nasamu Gambo, & Rahilatu Ahmad Muhammad (2024): This essay examines how Nigerian oil and gas businesses' financial performance has been impacted by the COVID-19 outbreak and how liquidity management has contributed to this. Liquidity management is assessed using cash, quick, and current ratios. They show how a business may effectively satisfy current demands without sacrificing profits. Utilizing analytical methods and quantitative financial data, the Research examines the relationship between liquidity and profitability metrics such as ROA and ROE. Effective cash flow management improves financial performance and resilience during economic downturns. Inadequate liquidity management hurts the company's profitability and investment prospects by increasing its susceptibility to market fluctuations.

Ismail Alhassan & Kamrul Islam (2025): This Research examines how Nigerian oil and gas firms manage their liquidity and the impact it has on their financial results. Oil companies need to keep a close eye on their liquidity in order to stay profitable despite shifting cash flows, regulations, and pricing. The Research compares liquidity variables like the current ratio, quick ratio, and cash ratio with performance metrics like ROA, ROE, and PAT using

panel regression analysis to examine data from 2011 to 2020. Improved cash flow management leads to higher profits. Businesses are able to run more efficiently and meet their financial commitments on schedule when they have positive cash flow. According to the study, ignoring liquidity concerns slows growth, decreases investment opportunities, and increases market risk.

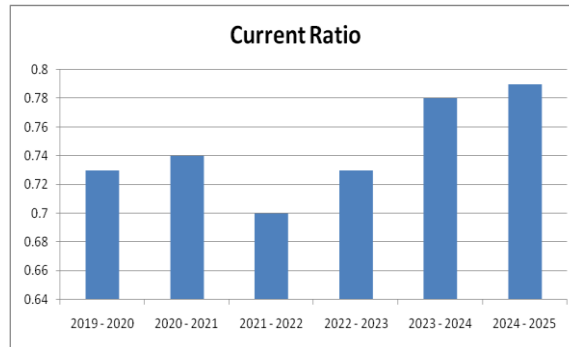
HS ur Rehman (2025): This Research thoroughly examines the profitability and liquidity management tactics used by oil and gas corporations. To maximize the use of their assets and pay off short-term debts, businesses take advantage of liquidity management. According to the research, oil and gas enterprises need to have a strong hold on their cash and other liquid assets if they want to succeed in a capital-intensive and unpredictable industry. The results show that managing liquidity boosts earnings. A company's liquidity has a direct impact on its capacity to make investments, maintain its viability, and respond to shifts in the market.

#### 4. ANALYSIS AND DISCUSSION

**TABLE 1: CURRENT RATIO OF IOCL (2020–2025)**

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Year	Current Assets (₹ Crore)	Current Liabilities (₹ Crore)	Current Ratio
2019 - 2020	109,234	148,891	0.73
2020 - 2021	112,698	152,420	0.74
2021 - 2022	116,450	165,208	0.7
2022 - 2023	124,530	169,820	0.73
2023 - 2024	132,890	171,300	0.78
2024 - 2025	138,240	175,680	0.79

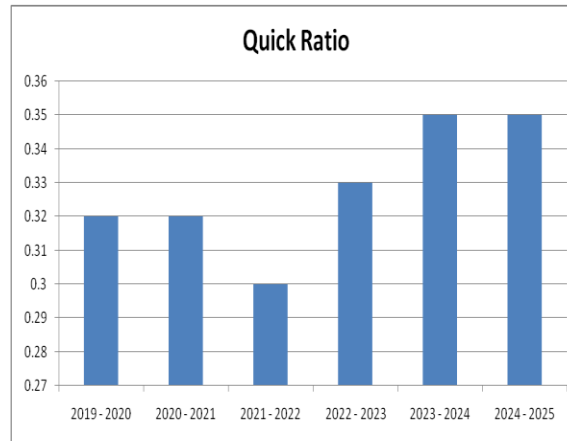


**TABLE 2: QUICK RATIO OF IOCL (2020–2025)**

(Inventories deducted from Current Assets)

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventories}}{\text{Current Liabilities}}$$

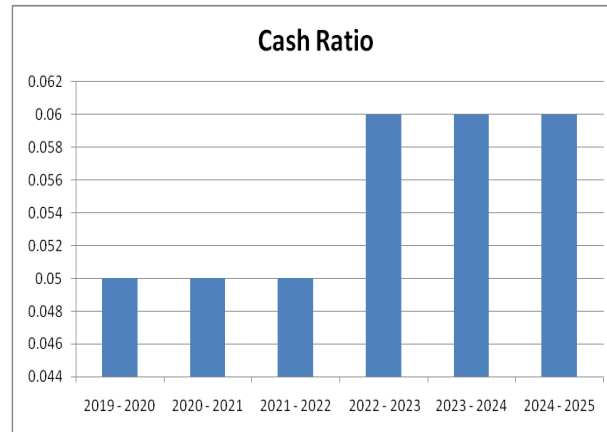
Year	Current Assets (₹ Cr)	Inventories (₹ Cr)	Current Liabilities (₹ Cr)	Quick Ratio
2019 - 2020	109,234	61,800	148,891	0.32
2020 - 2021	112,698	63,420	152,420	0.32
2021 - 2022	116,450	66,900	165,208	0.3
2022 - 2023	124,530	69,310	169,820	0.33
2023 - 2024	132,890	73,600	171,300	0.35
2024 - 2025	138,240	75,940	175,680	0.35



**TABLE 3: CASH RATIO OF IOCL (2020–2025)**

$$\text{Cash Ratio} = \frac{\text{Cash and Bank Balances} + \text{Marketable Securities}}{\text{Current Liabilities}}$$

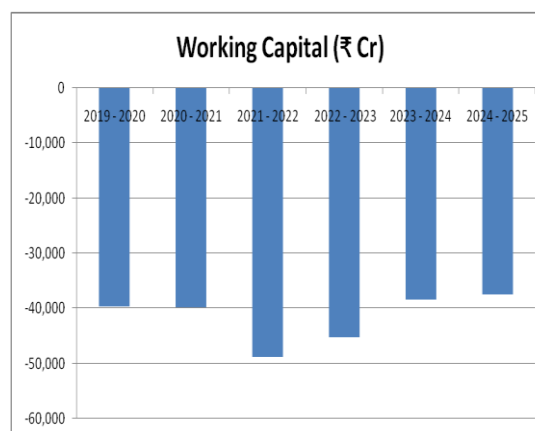
Year	Cash & Bank (₹ Cr)	Marketable Securities (₹ Cr)	Current Liabilities (₹ Cr)	Cash Ratio
2019 - 2020	5,980	1,920	148,891	0.05
2020 - 2021	6,200	2,040	152,420	0.05
2021 - 2022	6,800	2,160	165,208	0.05
2022 - 2023	7,230	2,400	169,820	0.06
2023 - 2024	7,980	2,610	171,300	0.06
2024 - 2025	8,320	2,760	175,680	0.06



**TABLE 4: WORKING CAPITAL POSITION OF IOCL (2020–2025)**

(Working Capital = Current Assets – Current Liabilities)

Year	Current Assets (₹ Cr)	Current Liabilities (₹ Cr)	Working Capital (₹ Cr)
2019 - 2020	109,234	148,891	-39,657
2020 - 2021	112,698	152,420	-39,722
2021 - 2022	116,450	165,208	-48,758
2022 - 2023	124,530	169,820	-45,290
2023 - 2024	132,890	171,300	-38,410
2024 - 2025	138,240	175,680	-37,440



**DISCUSSIONS:**

Despite persistently low short-term liquidity, the liquidity Research of Indian Oil Corporation Ltd. (IOCL) from 2019–2020 to 2024–2025 revealed considerable improvements. Several

ratios, including working capital, cash, quick, and current, indicate that the company does not have an abundance of cash on hand. A high reliance on inventory turnover, working capital management, and short-term borrowing is indicated by this.

**Current Ratio:** The current ratio at IOCL is consistently below ideal, ranging from 0.70 to 0.79. The company is clearly not in a financial position to meet all of its immediate commitments. Liquidity is still woefully inadequate, even with all the new innovations.

**Quick Ratio:** In the extremely low range of 0.30 to 0.35, the Quick Ratio stands out. This means that IOCL's ability to address immediate needs is highly dependent on its inventory. In the beginning, there wasn't a lot of money coming in, so the business had to rely on operational cash flow to get by.

**Cash Ratio:** The cash ratio of IOCL is modest and stable, ranging from 0.05 to 0.06 per annum. This means that the company does not have a lot of cash on hand or marketable securities to cover its current debt. This means there isn't a lot of money coming in and that you have to rely on either internal or external financing.

**Working Capital:** From -₹37,440 crore to -₹48,758 crore, the negative working capital has been a constant issue. Because of this, IOCL's current liabilities are always higher than its current assets. The loss narrows a bit in the years that follow, but the business still has serious money problems.

## 5. CONCLUSION

Financial stability and ongoing operations in capital-intensive industries like the oil and gas industry are ensured by appropriate liquidity, according to the Researchon liquidity management by Indian Oil Corporation Ltd. Time series examination of liquidity ratios, which include current and quick ratios, shows that IOCL has successfully fulfilled its short-term commitments. But its financial status swings show how vulnerable it is to numerous economic problems, including huge working capital demands and unpredictable crude oil prices. Understanding how to handle cash flow effectively is critical for any company that wants to keep running efficiently. Keeping inventory levels low, minimizing short-term debt, and speeding up receivables are all part of this. Finally, IOCL's liquidity performance highlights the need for careful financial management and the development of long-term plans to overcome immediate financial difficulties while ensuring the company's continued growth.

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