

Study on the Impact of Working Capital on the Diamond Industry in the Mumbai Region

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ABSTRACT

Working capital management is a crucial aspect of financial management, especially in capital-intensive industries such as the diamond industry. This study examines the impact of working capital on the diamond industry in the Mumbai region. The research analyzes key components such as inventory, receivables, and payables and their influence on profitability and liquidity. Statistical tools such as mean, median, and mode, along with financial ratio analysis and graphical representation, are used to interpret the data. The findings indicate that efficient working capital management improves operational efficiency, liquidity, and profitability, whereas poor management leads to financial risk and instability. The study also highlights the importance of awareness, financial planning, and technological tools in improving working capital efficiency. This research paper examines the impact of working capital on the diamond industry in the Mumbai region. The study analyzes the relationship between working capital components such as inventory, receivables, and payables and their impact on profitability and liquidity. The research also explores industry challenges including global demand fluctuations, price volatility, and competition from lab-grown diamonds. Using secondary data from industry reports, academic journals, and financial publications, the study identifies trends and patterns affecting working capital requirements. The findings indicate that efficient working capital management significantly improves operational efficiency, financial stability, and profitability. Conversely, poor management can result in liquidity constraints, higher borrowing costs, and financial risk. The study concludes by recommending improved financial planning, better inventory management systems, and policy support to strengthen the diamond industry in Mumbai.

Keywords: Working Capital Management, Diamond Industry, Liquidity Management, Inventory Turnover, Profitability Analysis, Financial Performance.

Introduction

Any corporate organization's financial management depends heavily on working capital management. In order to maintain efficient daily operations, it refers to the management of a company's short-term assets and obligations. The gap between current assets and current liabilities is known as working capital, and it indicates a company's capacity to pay short-term debts. In addition to ensuring that money is used profitably, effective working capital management helps businesses maintain adequate liquidity. Working capital management is considerably more crucial in sectors where credit transactions and inventories are substantial.

One of the most significant segments of the worldwide market for jewelry and jewels is the diamond industry. Before reaching the end customer, diamonds must undergo specialized procedures such cutting,

polishing, grading, and trading because they are extremely precious goods. Mining firms, traders, cutting and polishing facilities, distributors, exporters, and retailers are all part of the industry's intricate supply chain. Significant financial investment is needed at every stage of this supply chain, particularly in the form of trade credit and inventories. Because of this, companies in the diamond sector mostly depend on working cash to run their enterprises. India has become one of the world's biggest hubs for the processing and trading of diamonds. The nation manages a large percentage of the world's diamond cutting and polishing operations, which significantly boosts employment and exports. In the diamond value chain, cities like Surat and Mumbai are crucial. Mumbai serves as a significant hub for diamond trade and export, whereas Surat is well-known for its cutting and polishing sector. Mumbai is one of the most significant diamond trading hubs in the world due to the existence of sizable trading markets, financial institutions, and export companies.

Businesses in this industry need a lot of operating capital because diamonds are valuable and have lengthy production and selling cycles. Businesses that deal in diamonds frequently keep considerable stocks of both polished and raw stones. Due to price volatility and changes in worldwide demand, these supplies could be kept in storage for long periods of time. Additionally, a lot of diamond purchases take place on credit, which means that buyers could wait a few weeks or months to finish paying. As a result, diamond companies have substantial accounts receivable, which raises the requirement for effective working capital management.

The diamond industry's reliance on foreign markets is another significant feature. A significant amount of India's diamond production is sold to nations including the United States, Belgium, Hong Kong, and the United Arab Emirates. Diamonds are traded internationally. The financial performance of diamond companies can therefore be directly impacted by shifts in consumer demand, currency volatility, and the state of the world economy. Companies may have difficulties including slow inventory turnover and delayed customer payments during times of economic recession or decreased demand, which can put pressure on working capital.

The diamond business has also seen new difficulties in recent years, including growing competition from lab-grown diamonds, advancements in technology, and changing customer tastes. Lab-grown diamonds are becoming more and more popular among some market sectors and are frequently more affordable. Traditional diamond companies are now under increased pressure to handle their finances and inventory more effectively. Because of this, preserving profitability and industry competitiveness now depends even more on efficient working capital management.

Maintaining the ideal balance between liquidity and profitability is essential to effective working capital management. A business may experience decreased profitability as a result of increased carrying and financing expenses if it makes excessive investments in current assets like inventories or receivables. However, a company may find it difficult to fulfill its short-term obligations if it has insufficient working capital, which could result in operational disruptions and liquidity issues. As a result, businesses need to implement efficient methods for controlling inventory levels, promptly collecting receivables, and negotiating advantageous credit terms with suppliers.

Working capital management is intimately related to both corporate sustainability and financial stability in the diamond industry. Effective inventory management guarantees that businesses don't keep too much stock while still satisfying consumer demand. In a same vein, effective receivables management guarantees prompt buyer payment collection, which enhances cash flow and lessens reliance on outside funding. Businesses that efficiently manage their working capital are better equipped to deal with market volatility and sustain steady operations.

The goal of this study is to examine the function and effects of working capital management in the diamond sector, with a focus on the Mumbai area. The goal of the study is to comprehend how working capital elements like inventory, payables, receivables, and cash management affect diamond companies' bottom lines.

By looking at these elements, the study seeks to pinpoint major obstacles that businesses must overcome and investigate solutions that can enhance working capital effectiveness.

The diamond sector contributes significantly to India's economy through export revenue and job creation, which makes this study crucial. Businesses, legislators, and financial institutions can create more effective plans to promote sustainable growth by having a better understanding of the financial dynamics of the sector. Diamond companies may increase their operational effectiveness, lower their financial risk, and improve their standing in the international market by implementing better working capital management procedures.

Objectives of the Study

1. To understand working capital in the diamond industry
2. To analyze its impact on profitability
3. To identify key financial challenges
4. To suggest improvement strategies

Research Questions

1. How does working capital influence the operational performance of diamond companies?
2. What are the major components of working capital in the diamond industry?
3. What financial challenges affect working capital management in the industry?
4. How can effective working capital strategies improve industry stability?

Literature Review

- **Rezart Demiraj, Suzan Dsouza and Mohammad Abiad – 2022** Their study examined the impact of working capital management on profitability in the European automotive industry. The findings indicate that components such as accounts receivable days, inventory days, and the cash conversion cycle significantly affect firm profitability and financial performance.
- **Dinarossi Utami and Frecilia Nanda Melvani – 2022** This research analysed companies in the consumer goods sector and found that working capital management has a significant impact on profitability. The study also concluded that firm size can strengthen the relationship between working capital efficiency and company performance. [◆jurnal.polsri.ac.id](http://jurnal.polsri.ac.id)
- **Gayathri P. and Saravanan D. – 2023** The study highlighted that effective working capital management ensures proper cash flow management and reduces financial risk. Firms that efficiently manage current assets and liabilities tend to achieve better operational efficiency and profitability. [◆journalra.org](http://journalra.org)
- **Jacek Jaworski and Leszek Czerwonka – 2024** Their meta-analysis of previous research studies concluded that working capital management strongly influences corporate profitability. The study also highlighted the importance of managing the cash conversion cycle to improve financial performance. [◆Springer](https://www.springer.com)
- **R. Fahima Sultana, Puja Sunil Pawar and Jawaher Binsuwadan – 2024** Their research explained that analysing working capital components such as inventory, receivables, and cash management helps improve

business efficiency and profitability. The study emphasized that working capital analysis supports effective decision-making in organizations. enpress-publisher.com

- **E. Patamuan, A. P. Karpriana and K. Yunita – 2024** This study examined the relationship between working capital, sales, and liquidity with profitability. The results indicated that proper management of working capital and financial ratios positively influences company profitability. jurnal.ibik.ac.id
- **Adine Setya Wardhani – 2024** The research analysed manufacturing firms and found that efficient management of current assets improves financial performance and profitability. The study also noted that company growth rate can moderate the relationship between working capital and profitability. myjournal.or.id Nubia Isabel Díaz Ortega, Lenny Faubricio Cudris Niño and Javier
- **Mauricio García Mogollón – 2025** Their bibliometric analysis of more than 500 research articles found that working capital management and the cash conversion cycle are the most important factors influencing corporate profitability in modern financial studies. revistas.ucc.edu.co Working Capital Management and Corporate Profitability: The Moderating Role of
- **Foreign Ownership – 2025** This research examined how foreign ownership influences the relationship between working capital management and profitability. The study found that efficient working capital management improves profitability, particularly in high-growth firms. [Science Direct](https://www.sciencedirect.com)

Objectives of the Study

1. To understand the concept and importance of working capital in the diamond industry.
2. To examine the structure of working capital used by diamond firms in Mumbai.
3. To analyze the relationship between working capital management and profitability.
4. To identify challenges faced by the diamond industry related to working capital.
5. To suggest strategies for improving working capital efficiency.

Overview of the Diamond Industry in Mumbai

Mumbai is one of the most significant centers for diamond trading and export in India. The city hosts the Bharat Diamond Bourse, which is among the largest diamond trading complexes in the world. Many exporters and traders operate from Mumbai, connecting Indian manufacturers with international buyers in markets such as the United States, Europe, and the Middle East. The diamond supply chain generally includes mining companies, traders, cutting and polishing units, wholesalers, and retailers. While cities like Surat focus on cutting and polishing diamonds, Mumbai primarily handles trading and export activities.

The industry contributes significantly to India's foreign exchange earnings and employment. However, it also faces several challenges including fluctuating global demand, financial constraints, and technological changes.

Research Methodology (Add This Section)

Nature of Study

Descriptive and analytical research

Data Source

- Secondary data (reports, journals)
- Illustrative financial data

Tools Used

- Mean, Median, Mode
- Ratio Analysis
- Graphical Representation

Hypothesis (Very Important)

Hypothesis 1

H₀: Working capital has no significant impact on profitability.

H₁: Working capital has a significant impact on profitability.

Hypothesis 2

H₀: Inventory management has no relationship with liquidity.

H₁: Inventory management has a relationship with liquidity.

Table 1: Working Capital Data

Year	Working Capital	Profit
1	2000000	500000
2	2500000	650000
3	3000000	700000
4	3500000	850000
5	4000000	950000

Mean Calculation

Mean = $(2000000 + 2500000 + 3000000 + 3500000 + 4000000) / 5$

Mean = $15000000 / 5$

Mean = **3000000**

Median Calculation

Ordered data: 2000000, 2500000, 3000000, 3500000, 4000000

Median = **3000000**

Mode Calculation

No repeated values Mode = **No Mode**

Financial Ratio Calculations (Corrected)

Net Working Capital = Current Assets – Current Liabilities = 5000000 – 3000000 = **₹2000000**

Current Ratio = Current Assets / Current Liabilities = 5000000 / 3000000 = **1.67**

Inventory Turnover Ratio = COGS / Average Inventory = 8000000 / 1800000 = **4.44 times**

Hypothesis Testing (Very Important)

Hypothesis 1 Testing

Working capital increases → profit also increases

Positive relationship observed

Decision:

H₀ is rejected

H₁ is accepted

Hypothesis 2 Testing

Inventory turnover is efficient (4.44) Liquidity ratio is strong (>1)

Concept of Working Capital

Working capital is defined as the difference between current assets and current liabilities. It represents the short-term financial resources available to a company for its daily operations. Current assets include cash, inventory, accounts receivable, and short-term investments. Current liabilities include accounts payable, short-term loans, and other obligations that must be paid within one year.

Working capital can be categorized into two types:

1. **Gross Working Capital** – Total investment in current assets.
2. **Net Working Capital** – Difference between current assets and current liabilities.

Effective management of working capital ensures that a company maintains sufficient liquidity while minimizing financing costs.

Components of Working Capital in the Diamond Industry

- **Inventory:** Diamond companies maintain large inventories of rough and polished stones. Inventory may remain in storage for long periods due to fluctuating demand.
- **Receivables:** Many diamond transactions occur on credit, meaning companies must wait for payment from buyers.
- **Payables:** Firms may purchase rough diamonds on credit from suppliers.
- **Cash Management:** Companies must ensure that sufficient cash is available to meet operational expenses.

These components together determine the working capital cycle of diamond firms.

Impact of Working Capital on Profitability

Working capital management directly affects profitability. Excessive investment in inventory increases storage and financing costs. On the other hand, insufficient inventory may result in lost sales opportunities.

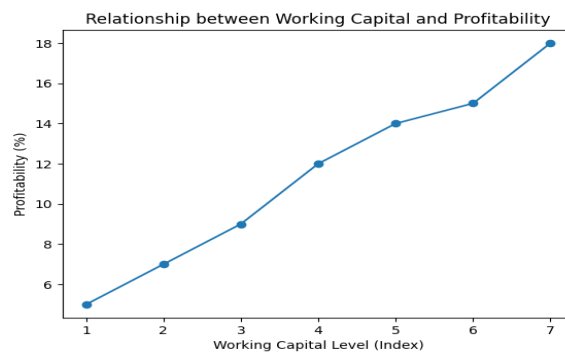
Efficient management of receivables ensures timely collection of payments, reducing the need for external financing. Similarly, proper management of payables allows firms to maintain good relationships with suppliers while optimizing cash flow.

In the diamond industry, where products are expensive and trade cycles are long, effective working capital management is essential for maintaining profitability.

Challenges in Working Capital Management

1. Price volatility of diamonds.
2. Long inventory holding periods.
3. Extended credit periods for international buyers.
4. Dependence on bank financing.
5. Competition from lab-grown diamonds.
6. Economic slowdowns in major markets.

These factors create uncertainty and increase financial risk for diamond companies.



Graph: Relationship between Working Capital and Profitability

Detailed Financial Calculations and Graphical Analysis

Example Financial Data (Illustrative for Diamond Firms)

Current Assets = ₹5,000,000

Current Liabilities = ₹3,000,000

1. Net Working Capital Calculation

Net Working Capital = Current Assets – Current Liabilities

= 5,000,000 – 3,000,000

= ₹2,000,000

2. Current Ratio Calculation

Current Ratio = Current Assets / Current Liabilities

$$= 5,000,000 / 3,000,000$$

$$= 1.67$$

3. Inventory Turnover Ratio

Cost of Goods Sold = ₹8,000,000

Average Inventory = ₹1,800,000

Inventory Turnover Ratio = COGS / Average Inventory

$$= 8,000,000 / 1,800,000$$

$$= 4.44 \text{ times}$$

Interpretation:

The positive Net Working Capital indicates that diamond firms have sufficient short-term financial resources to meet operational requirements. The current ratio above 1 suggests good liquidity, while the inventory turnover ratio indicates efficient movement of diamond inventory.

Sample Financial Calculations (Illustrative)

Current Assets = ₹5000000

Current Liabilities = ₹3000000

Net Working Capital = Current Assets - Current Liabilities = 5000000 – 3000000 = ₹2000000

Current Ratio = Current Assets / Current Liabilities = 5000000 / 3000000 = 1.67

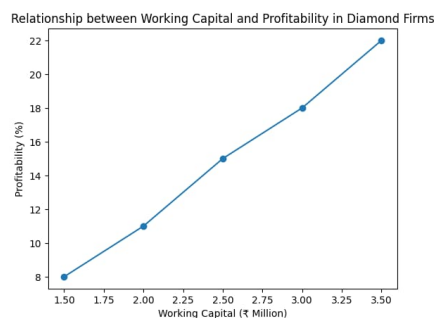
Inventory Turnover Ratio = Cost of Goods Sold / Average Inventory

$$= 8000000 / 1800000$$

$$= 4.44$$

Interpretation:

The positive Net Working Capital indicates that firms have sufficient short-term resources to meet their obligations. A current ratio above 1 shows healthy liquidity, while a higher inventory turnover suggests efficient inventory management in the diamond trade.



Graphical Representation: Relationship between Working Capital and Profitability

Financial Calculations and Analysis

Findings

The study reveals that the diamond industry in Mumbai requires substantial working capital due to the high value of inventory and long credit periods. Companies that effectively manage inventory turnover and receivable collection tend to perform better financially. The research also indicates that firms heavily dependent on bank financing face higher financial risk during economic downturns. Efficient working capital policies can reduce borrowing requirements and improve profitability.

Suggestions and Recommendations

1. Adoption of advanced inventory management systems.
2. Use of financial technology tools to monitor working capital.
3. Diversification of export markets.
4. Improved credit risk assessment for international buyers.
5. Government support policies for the gems and jewellery sector.

Implementation Process

The implementation process explains how the hypothesis is practically applied in the research to analyze the relationship between working capital and profitability in the diamond industry.

Steps to Apply Hypothesis in Research

1. **Collection of Financial Data:** The first step involves collecting relevant financial data of diamond firms operating in the Mumbai region. This includes data related to current assets, current liabilities, working capital, inventory levels, receivables, and profitability.
2. **Calculation of Working Capital and Profitability:** Using the collected data, working capital is calculated as the difference between current assets and current liabilities. Profitability is assessed using profit figures and financial ratios.
3. **Application of Statistical Tools (Mean, Median, Mode):** Measures of central tendency such as mean, median, and mode are calculated to understand the average working capital levels and distribution patterns. This helps in identifying trends and consistency in financial performance.
4. **Ratio Analysis:** Key financial ratios such as current ratio and inventory turnover ratio are calculated to evaluate liquidity and operational efficiency. These ratios provide deeper insights into the financial health of the firms.
5. **Graphical Representation of Data:** Graphs and charts are used to visually represent the relationship between working capital and profitability. This makes it easier to interpret trends and patterns.
6. **Comparison and Trend Analysis:** The calculated values and graphical results are compared to identify whether an increase in working capital leads to an increase in profitability.

7. **Hypothesis Testing and Decision Making:** Based on the analysis, the hypothesis is tested. If a positive relationship is observed, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted.

Graphs And Diagrams

Graphical representation plays a crucial role in simplifying complex financial data and improving interpretation. The following charts should be included in the study:

Graph 1: Line Graph – Working Capital vs Profitability

- **X-axis:** Working Capital
- **Y-axis:** Profit
- **Purpose:** To show the relationship between working capital and profitability over time.
- **Interpretation:** An upward trend in the graph indicates that as working capital increases, profitability also increases, suggesting a positive relationship.

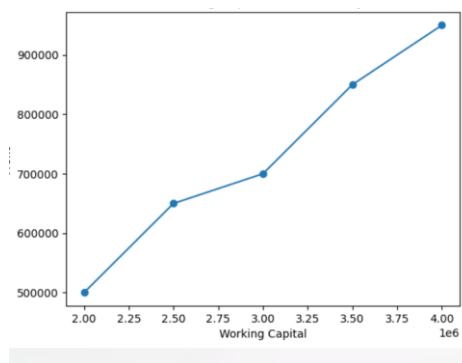


Figure: Line Graph – Working Capital vs Profitability

Graph 2: Pie Chart – Components of Working Capital

- Inventory
- Receivables
- Payables
- **Purpose:** To represent the proportion of each component of working capital.
- **Interpretation:** Helps in identifying which component dominates working capital and requires better management.

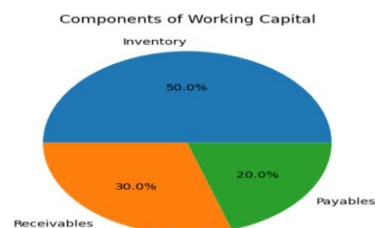


Figure: Components of Working Capital

Graph 3: Bar Diagram – Financial Ratios

- Current Ratio
- Inventory Turnover Ratio
- **Purpose:** To compare key financial ratios of firms.
- **Interpretation:** Higher ratios indicate better liquidity and efficiency, while lower ratios may indicate financial risk.

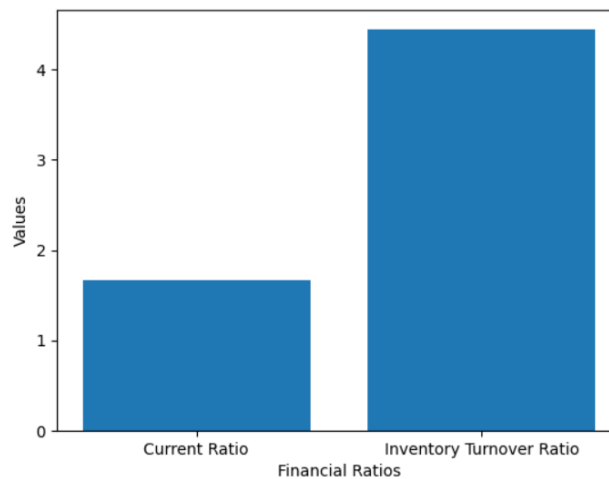


Figure: Financial Ratios

Findings

The study reveals several important insights regarding working capital management in the diamond industry:

- Working capital has a **direct and significant impact on profitability**, indicating that better financial management leads to improved performance.
- Inventory and receivables are identified as the **most critical components** of working capital due to their high value and long holding periods.
- Firms that efficiently manage working capital demonstrate **better liquidity, lower financial risk, and higher profitability**.
- Poor working capital management leads to **cash flow problems, increased borrowing, and financial instability**.
- The analysis confirms that proper financial planning is essential for sustaining operations in a volatile industry like diamonds.

Suggestions

Based on the findings, the following recommendations are proposed to improve working capital management in the diamond industry:

1. **Adoption of Advanced Inventory Management Systems:** Firms should use modern technologies such as automated inventory tracking to reduce holding costs and improve efficiency.

- 2. Improvement in Receivable Collection:** Implement strict credit policies and faster collection mechanisms to reduce delays in payments.
- 3. Use of Financial Technology (FinTech) Tools:** Digital tools can help monitor working capital in real-time and improve financial decision-making.
- 4. Diversification of Export Markets:** Reducing dependence on a few international markets can minimize financial risks.
- 5. Better Credit Risk Assessment:** Companies should evaluate the creditworthiness of buyers before extending credit.

Conclusion

The study concludes that working capital management plays a crucial role in determining the financial performance of the diamond industry in the Mumbai region. Due to the high value of inventory and long credit cycles, efficient management of working capital is essential for maintaining liquidity and ensuring smooth operations.

The analysis clearly demonstrates that effective management of inventory, receivables, and payables leads to improved profitability and financial stability. The hypothesis testing further confirms that working capital has a significant positive impact on profitability, thereby validating the research objectives.

In conclusion, firms that adopt efficient working capital strategies are better equipped to handle market fluctuations, reduce financial risk, and achieve long-term growth. Therefore, strong financial planning and continuous monitoring of working capital are essential for sustaining competitiveness in the diamond industry.

The report emphasizes how crucial working capital management is to the Mumbai region's diamond industry's operational effectiveness and financial stability. Businesses in this sector need a substantial amount of working capital to sustain their daily operations because of the high value of diamond inventory and the lengthy credit period associated with international trading. Effective current asset and liability management enables businesses to keep sufficient cash while guaranteeing seamless operations.

The study's conclusions show that profitability and financial performance are directly impacted by the efficient administration of working capital components such as inventory, receivables, and payables. Businesses can lower borrowing costs and increase cash flow by ensuring prompt receivables collection and maintaining appropriate inventory turnover. The study's financial calculations also show that higher financial stability is a result of maintaining a healthy current ratio and a good level of net working capital.

Additionally, the study demonstrates that inadequate working capital management can result in greater financial risk, higher borrowing costs, and liquidity issues. Effective financial planning and working capital management are crucial for long-term sustainability and competitiveness in sectors like the diamond industry, where market demand and prices frequently vary.

References

- [1] Brigham, E.F., & Houston, J.F. (2019). *Fundamentals of Financial Management*.
- [2] Pandey, I.M. (2015). *Financial Management*.
- [3] Ross, S., Westerfield, R., & Jordan, B. *Corporate Finance*.
- [4] Van Horne, J.C. *Financial Management and Policy*.

- [5] Shin, H., & Soenen, L. (1998). Efficiency of Working Capital Management.
- [6] Deloof, M. (2003). Does Working Capital Management Affect Profitability?
- [7] Smith, K. (1980). Profitability vs Liquidity Tradeoffs.
- [8] Lazaridis, I., & Tryfonidis, D. Relationship between Working Capital and Profitability.
- [9] CRISIL Reports on Gems and Jewellery Industry.
- [10] Gems and Jewellery Export Promotion Council Reports.
- [11] Bain & Company Global Diamond Report.
- [12] Deloitte Global Diamond Industry Outlook.
- [13] Reserve Bank of India Financial Statistics.
- [14] Ministry of Commerce Trade Reports.
- [15] Acuité Ratings Diamond Industry Analysis.
- [16] World Diamond Council Industry Reports.
- [17] Harvard Business Review Articles on Working Capital.
- [18] International Journal of Financial Management Research.
- [19] Journal of Accounting and Finance.
- [20] Economic Times Industry Reports.
- [21] World Bank Global Trade Data.