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Driving Financial Agility: Working Capital Management at Global Alloys Pvt., Ltd.

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ABSTRACT

This study explores the working capital management practices at Global Alloys (P) Ltd, focusing on how the company manages its current assets and liabilities to maintain operational efficiency. It assesses liquidity, cash conversion cycle, inventory handling, and receivables/payables management. Primary data was collected through interviews with finance personnel, and secondary data from financial statements. The study reveals that effective working capital strategies are crucial for sustaining production and profitability. Delays in receivables and high inventory levels pose challenges. The analysis suggests improvements in credit policies and inventory turnover. Recommendations aim to optimize cash flow and enhance financial stability.

Key Words: Working Capital, Liquidity, Inventory Management, Cash Conversion Cycle.

INTRODUCTION

Kalpataru Global Alloys Private Limited is a private company established on June 7, 2013, headquartered in Chennai, Tamil Nadu. It specializes in the manufacturing of basic iron and steel products such as alloy plates, ferro chrome, and Inconel sheets. The company also operates a production facility in Kadivedu Village, Chillakur Mandal, in Andhra Pradesh. Managed by members of the Jain family, it functions with an authorized and paid-up capital of ₹50 lakh. Despite a decline in revenue and profit in the recent financial year, the company showed a positive increase in its net worth.

Kalpataru Global Alloys Private Limited holds significance in the metal and alloy manufacturing sector, contributing to the supply of essential raw materials used in various industries such as construction, engineering, and infrastructure. By operating within this critical segment, the company supports industrial development and plays a role in the broader economic growth. Its presence in Chennai, a major industrial hub, enhances regional industrial activity and employment, positioning it as a valuable player in the local and national manufacturing landscape.

The silicon industry plays a crucial role in the Indian economy as it forms the foundation of the electronics and semiconductor sectors. With India being the second-largest smartphone market in the world and electronics demand expected to reach USD 400 billion by 2025, silicon-based components are essential for powering devices and digital infrastructure. India currently imports over $15 billion worth of semiconductors annually, highlighting the need for domestic production. Through initiatives like “Make in India” and the Semion India Programme (with an outlay of ₹76,000 crore or approximately $10 billion), the country is actively promoting local semiconductor manufacturing. The industry is projected to create over 100,000 direct and indirect jobs in the coming years. It also drives innovation among over 10,000 tech startups, many of which rely on silicon-based technologies in AI, IoT, and automation. A robust silicon ecosystem will enhance India’s export potential, support strategic sectors like defines and space, and boost the

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digital economy, which is projected to contribute $1 trillion to India's GDP by 2025. Strengthening domestic chip production will not only reduce the electronics trade deficit, which currently stands at around $60 billion, but also position India as a global technology hub.

The silicon industry has a profound impact on society due to its central role in technology and innovation. Silicon is the key material used in semiconductors, which power essential devices like smartphones, computers, and medical equipment. It drives advancements in communication, healthcare, transportation, and education, making everyday life more efficient and connected. Additionally, silicon-based solar panels support clean energy initiatives, promoting environmental sustainability. Overall, the industry enhances both economic development and the quality of life across the globe.

Investing in working capital alone is not sufficient to achieve working capital efficiency (WCE). Equal emphasis must be placed on determining the working capital requirements (WCR) and identifying suitable sources and patterns of financing. The volume of WCR and the choice of financing sources significantly influence WCE, as each carries distinct costs and benefits that impact overall efficiency. Therefore, the way in which working capital is financed plays a crucial role in determining an organization's performance (Altaf & Ahmad, 2019; Baños-Caballero et al., 2016; Boisjoly et al 2020; Panda & Nanda, 2021). Despite the potential link between the volume of WCR, the nature and source of financing, and firm performance, this area has received limited attention from researchers. A thorough review of the literature reveals only a few studies such as Baños-Caballero et al. (2016) for Spanish firms. These studies suggest an inverted U-shaped relationship between the proportion of short-term debt used to finance working capital and firm performance.

LITERATURE REVIEW

Smith, K. (1980) Smith introduced the classic trade-off between profitability and liquidity in WCM. He emphasized that aggressive policies may boost profits but increase risk. The study distinguishes between permanent and temporary working capital. Effective WCM ensures sufficient liquidity while maximizing returns. Smith's insights form the foundation of modern WCM theory. He advocated balancing risk-return in short-term financial decisions.

Baños-Caballero et al. (2010) This study analyzed WCM in Spanish SMEs using panel data. Results showed that optimal WCM improves profitability. An inverted U-shaped relationship between working capital and firm value was found. SMEs need to maintain a moderate level of working capital for efficiency. Excessive or insufficient investment in working capital harms performance. It highlights the importance of size and financial constraints in WCM.

Kieschnick et al. (2013) They examined how WCM influences shareholders' wealth in U.S. firms. The study found that inefficient WCM destroys firm value. Maintaining optimal cash, inventory, and receivables is crucial. WCM practices are linked to stock returns and firm valuation. Empirical data supported a direct effect on market performance. It advocates strategic alignment of WCM with value creation.

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Lazaridis & Tryfonidis (2006) The study explored the link between WCM and profitability in Greece. Findings showed a negative relationship between cash conversion cycle and profitability. Firms with shorter cycles tend to earn higher returns. Managing receivables and inventories efficiently is key. Empirical results support aggressive WCM policies in some sectors. The research confirms the importance of WCM in financial health.

Nazir & Afza (2009) This paper studied factors influencing working capital needs in Pakistan. It compared aggressive vs. conservative WCM policies across industries. Firms with aggressive policies earned higher returns but took greater risk. Industry type, operating cycle, and leverage affected WCM strategies. The study suggested that economic context matters in policy selection. It contributes to regional perspectives on working capital dynamics.

Ukaegbu (2014) Ukaegbu analyzed WCM's impact on profitability in African firms. He found significant influence of receivables and inventory days on profits. The study emphasized contextual differences in developing economies. Efficient WCM is even more vital in resource-constrained environments. Cash conversion cycle showed a strong correlation with firm returns. It provides cross-country evidence supporting sound WCM practices.

Yunos et al. (2015) This study evaluated WCM in Malaysian government-linked companies (GLCs). GLCs maintained conservative WCM approaches due to public ownership. Findings showed stable but modest returns linked to their liquidity focus. There was less emphasis on aggressive profit-seeking strategies. The study highlighted public sector accountability in WCM. It suggests that governance style affects WCM efficiency.

Aktas et al. (2015) The research assessed whether WCM adds value to firms. Using international data, they found that good WCM boosts performance. Firms with better WCM had more investment and higher profitability. They emphasized efficient resource allocation through strategic WCM. It bridged the gap between WCM and long-term investment behavior. The study confirmed WCM's role in enhancing firm value. Although many studies have examined the Working capital Management Practices in “GLOBAL ALLOYS (P) LTD. There is a lack of research on how different types of Working Capital Management Practices influence different aspects of Financial Platforms. This research limits our understanding of how Working Capital can optimize their financial aspects and cope with potential risks. Therefore, this study aims to explore how Working Capital Management Practices affect the Profits and losses of the Organization, and help us to Understand Current Position of the Company in the Market.

OBJECTIVE OF THE STUDY

- To evaluate the Impact of Working Capital Management on Business Liquidity
- To analyse the Relationship Between Working Capital Efficiency and Profitability.
- To identify Key Factors Influencing Working Capital Decisions in current organisation.
- To Examine the Impact of Working Capital Management on Firm’s Financial Performance.
- To offer some suggestions for Strategic Improvements for Optimizing Working Capital Management

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RESEARCH DESIGN

Working Capital Management (WCM) plays a vital role in the day-to-day operations of a business. Proper management of current assets and liabilities ensures that a company maintains sufficient liquidity to meet its short-term obligations while maximizing profitability. Despite its importance, many businesses—particularly small and medium-sized enterprises (SMEs) face challenges in effectively managing their working capital. Issues such as delayed receivables, excess inventory, or poor cash flow planning can lead to financial instability and missed growth opportunities. The scope of this study on Working Capital Management (WCM) covers the evaluation of how businesses manage their short-term assets and liabilities to ensure smooth operations and financial stability. It focuses on understanding the impact of WCM practices on a firm's profitability, liquidity, and overall financial health. In preparing this project the information collected from the following sources. The Primary data has been collected from personal interaction with finance manager and other staff members. The Major source of data for this project was collected through annual reports i.e. profit &loss account and balance sheet of 5-year period from 2020-2024 & some more information from internet and text sources. Financial Statements**.** Last five years Financial Statements.

LIMITATIONS OF THE STUDY

The following are the various limitations involved in the study. This study in conducted within a short period. During the limited period the study may not be retailed, full-fledged and utilization in all aspects. Financial accounting does not take into account the price level changes. Future plans of the company will not be disclosed to us. Lastly, due to shortage of time it is not possible to cover all the factors and details regarding the subject of study.

DATA ANALYSIS AND INTERPRETATION

Current Ratio

A firm's total Current assets are divided by its total Current Liabilities. It Shows the Ability of a firm to meets its current liabilities with Current assets.

$$Current\ Ratio = \frac{current\ assets}{current\ liabilities}$$

Table 1 Showing Current Ratio

Years	Current Assets	Current Liabilities	Ratios
2020	31,200	54,250	0.575
2021	42500	56,700	0.75
2022	58,000	53,500	1.084
2023	1,05,000	64,600	1.625
2024	1,30,500	66,000	1.977

Source: Secondary Data

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From the above table 1, the current ratio has shown a consistent upward trend from 2020 to 2024, rising from 0.575 to1. 977.This indicates a continuous improvement in the company's ability to meet its short-term obligations with its current assets.

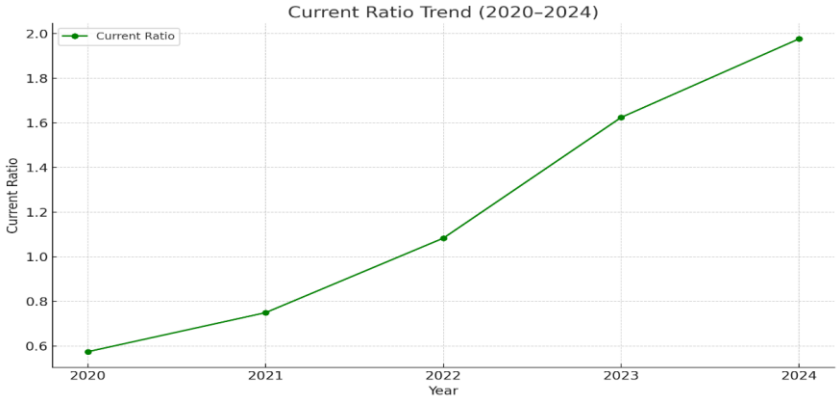

Figure 1 Current Ratio

From the above table 1 and figure 1, the current ratio/s during the years 2020- 2024 are 0.575, 0.75, 1.084, 1.625,1.977. It interprets that for the year 2019 & 2020 the current ratio is below the standard ratio of 2:1. Which means that the company did not have enough liquid assets to cover its short-term Liabilities. The year 2022-2023 the current ratio is equal to the standard ratio 2:1

Cash ratio

The Cash ratio is a liquidity measure that shows a company's ability to cover its short-term obligations using only Cash and Cash equivalents. The Cash ratio is derived by adding a company's total reserves a cash and near-cash securities and dividing that sum by its total current liabilities.

$$Cash\ ratio = \frac{cash}{current\ liabilities}$$

Table 2 Cash Ratio

Years	Cash	Current liabilities	Ratio
2020	1000	54,250	0.0184
2021	2500	56,700	0.0441
2022	4000	53,500	0.0748
2023	5000	64,600	0.0774
2024	8500	66,000	0.1288

Source: Secondary Data

Table 2 presents the cash ratio of the firm over a five-year period from 2020 to 2024. The cash ratio, which indicates the company's ability to cover its current liabilities using only its cash and cash equivalents, shows a consistent upward trend throughout the period. In 2020, the ratio was notably low at 0.0184, indicating that the company held only 1.84% of its current liabilities in cash, reflecting limited immediate liquidity. However, the ratio gradually improved each year,

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rising to 0.0441 in 2021 and 0.0748 in 2022, signaling better liquidity management. By 2023, the ratio increased slightly to 0.0774, and in 2024, it reached 0.1288, the highest in the observed period. This steady growth suggests that the firm has strengthened its short-term financial position by maintaining higher cash reserves relative to its current liabilities. Although the cash ratio remains below 1.0 indicating the company may still rely on other current assets or short-term financing to meet obligations—the improvement reflects a positive trend in cash management and liquidity planning.

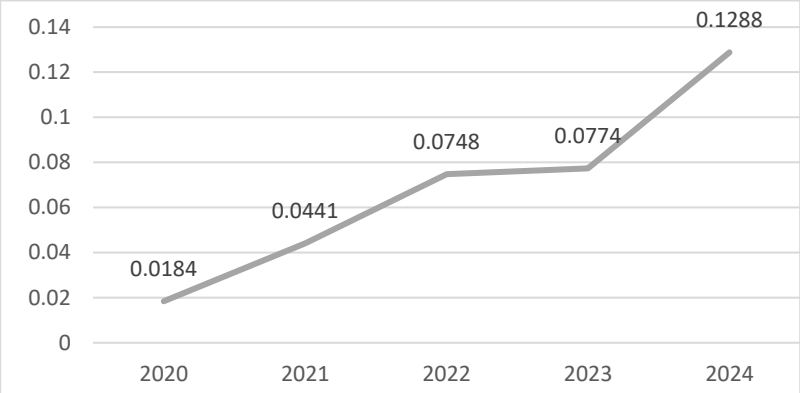

Figure 2 Cash Ratio

The ratio shows a steady increase from 2020 to 2023, followed by a sharp rise in 2024, indicating accelerating growth.

Quick ratio

Quick ratio, also known as acid-test ratio. An indicator of a company's short- term liquidity position and measures a company's ability to meet its short-term obligations with its most liquid asserts.

$$\textbf{Quick ratio}=\frac{current\ asserts-inventory}{current\ liabilities}$$

Table 3 Quick ratio

Years	Current assets	Inventory	quick assets	Quick Liabilities	Ratio
2020	31,200	14,000	17,200	54,250	0.317
2021	42,500	20,000	22,500	56,700	0.397
2022	58,000	30,000	28,000	53,500	0.523
2023	1,05,000	40,000	65,000	64,600	1.006
2024	1,30,500	60,000	70,500	66,000	1.068

Source: Secondary Data

The analysis of Table 3 shows a progressive improvement in the quick ratio from the year 2020 to 2024. In 2020, the quick ratio stood at 0.317, indicating that the company had only ₹0.317 in quick

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assets for every ₹1 of quick liabilities, which reflected a weak liquidity position. Over the subsequent years, the ratio steadily increased to 0.397 in 2021 and 0.523 in 2022, suggesting a gradual strengthening of the firm's short-term financial health. A significant improvement was observed in 2023, with the ratio rising to 1.006, and further to 1.068 in 2024. These figures imply that, by 2023 and 2024, the company had sufficient quick assets to fully cover its immediate liabilities, marking a sound and favorable liquidity position. This consistent upward trend in the quick ratio highlights the company's improved financial management and reduced reliance on inventory to meet its short-term obligations.

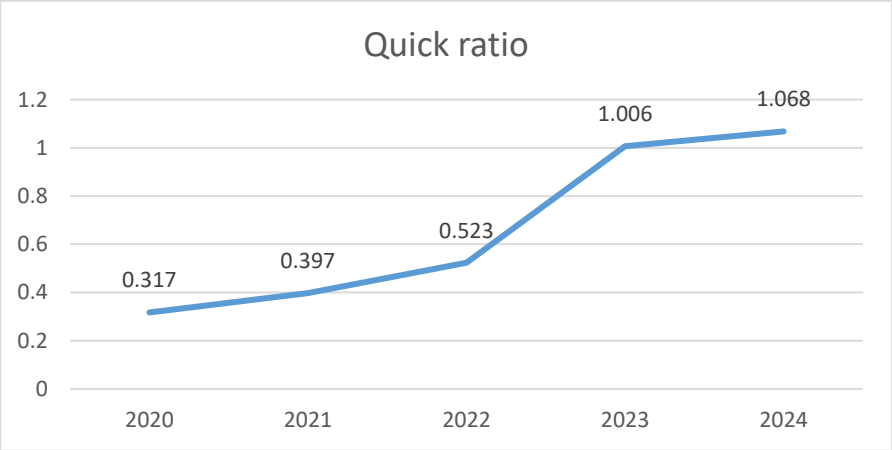

Figure 3 Quick Ratio

The ratio increases steadily from 2020 to 2022, surges in 2023, and then shows slight growth in 2024.

Inventory Turnover Ratio

The Inventory turnover ratio is a financial ratio showing how many times a company turned over its inventory. Relative to its cost of goods sold (cogs) in a given period. A company can then divide the days in the period. The inventory turnover ratio can help businesses make better decisions on pricing, Manufacturing, Marketing, and purchasing. It is one of the efficiency ratios (or) activity ratio measures how effectively a company uses its assets.

$$\textbf{Inventory Turnover} = \frac{cost\ of\ goods\ sold}{Average\ inventory}$$

Cost of goods sold= Opening inventory +Purchases – closing Inventory

Average inventory= (opening inventory + closing inventory) /2

The analysis of the Inventory Turnover Ratio for the years 2020 to 2024 provides valuable insights into the efficiency of inventory management. In 2020, the ratio stood at 1.053, indicating that the company sold its inventory just over once during the year. The ratio slightly decreased to 1.021 in 2021, reflecting a marginal decline in inventory turnover, but still indicating a relatively efficient inventory management system. However, in 2022, the ratio dropped significantly to 0.871, suggesting a slower inventory turnover and a potential overstocking of goods or a slowdown in sales. The ratio improved in 2023, rising to 1.0, which indicates that the company sold its entire

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average inventory once during the year, a sign of balanced inventory levels and efficient sales performance. In 2024, the ratio further declined to 0.429, indicating a sharp reduction in inventory turnover, possibly due to overstocking or reduced sales, which may suggest inefficiency in inventory management or a mismatch between supply and demand.

Table4 Inventory Turnover Ratio

Years	Cost of goods sold	Average inventory	Ratios
2020	20000	19,000	1.053
2021	24500	24000	1.021
2022	30500	35000	0.871
2023	50000	50000	1
2024	30000	70000	0.429

Source: Secondary Data

The fluctuations in the Inventory Turnover Ratio over the years indicate varying levels of inventory efficiency, with notable concerns in 2022 and 2024 that may require further investigation into inventory and sales management practices.

Figure 4 Inventory Turnover Ratio

The ratio shows a slight decline from 2020 to 2022, a brief rise in 2023, and then a significant drop in 2024, indicating overall downward movement.

Debtors' turnover ratio

Debtors' turnover ratio or accounts receivables turnover ratio indicates the total number of times debtors are changed into cash during one financial year. Debtors' turnover ratio is an important financial metric that helps businesses understand their ability to collect outstanding debts. This ratio is calculated by dividing the net credit sales by the average accounts receivables.

$$\textbf{Debtors' turnover ratio} = \frac{sale}{Debtors}$$

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The Debtors Turnover Ratio for the years 2020 to 2024 shows a fluctuating trend in the efficiency with which the company collects its receivables. In 2020, the ratio stood at 3.59, indicating that the company was able to turn over its receivables approximately 3.59 times during the year. This ratio decreased to 2.57 in 2021, suggesting a slower collection period, as sales increased but the proportion of receivables grew at a faster rate.

Table 5 Debtors Turnover Ratio

Years	Sales	Debtors	Ratio
2020	1,40,000	39,000	3.59
2021	1,85,000	72,000	2.57
2022	1,50,000	52,000	2.88
2023	1,20,000	44,000	2.73
2024	2,00,000	53,000	3.77

Source: Secondary Data

However, in 2022, the ratio slightly improved to 2.88, indicating better receivable management. In 2023, the ratio was 2.73, reflecting a minor decline in efficiency compared to 2022 but still indicating that the company was turning over its receivables more than twice. The ratio improved again in 2024 to 3.77, showing a marked recovery, with the company efficiently managing its receivables relative to the higher sales. Overall, while the ratio exhibits some fluctuation, it suggests that the company has demonstrated varied but generally improving efficiency in collecting debts over the five-year period.

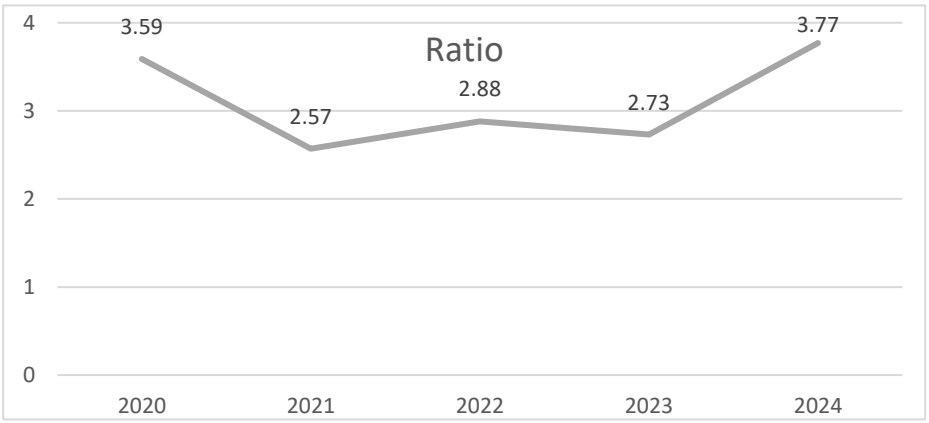

Figure 5 Debtors turnover ratio

The ratio starts high in 2020, drops significantly in 2021, and then shows minor fluctuations in 2022 and 2023.

ANALYSIS OF FINDINGS

The company's current ratio has steadily improved, indicating enhanced short-term liquidity and financial health. The quick ratio has improved over the years, indicating better immediate liquidity and reduced dependency on inventory. The company transitioned from a negative to a stable and

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healthy debt ratio, indicating improved financial stability and reduced reliance on debt. The debt-to-equity ratio improved significantly after 2021, indicating reduced financial risk and a stronger equity position. The gross profit margin declined sharply after 2020–21, indicating rising production costs or reduced pricing power, with only slight recovery in 2023–24. The net profit ratio showed significant improvement after 2020–21, peaking in 2022–23, but slightly declined in 2023–24 due to possible cost increases or efficiency issues.

RECOMMENDATIONS

Managers

Managers play a crucial role in ensuring the efficient management of working capital, which directly impacts a firm's liquidity, profitability, and operational continuity. It is recommended that managers adopt a more strategic and data-driven approach to managing current assets and liabilities. They should regularly monitor key performance indicators such as the cash conversion cycle, inventory turnover ratio, and days sales outstanding (DSO) to identify areas of improvement. Additionally, investing in digital tools and automation for forecasting cash flows and tracking receivables can significantly enhance decision-making. Managers should also foster closer collaboration with suppliers and customers to negotiate better payment terms and improve collection efficiency. Training programs should be implemented to build financial literacy among mid-level managers to ensure consistent and informed working capital decisions across departments.

Policy Makers

For policy makers, there is a growing need to create a supportive environment that enables firms, especially small and medium-sized enterprises (SMEs), to manage their working capital more effectively. This includes the development of financial instruments such as supply chain financing, invoice discounting, and low-interest short-term credit facilities that are easily accessible. Policy frameworks should encourage timely payments between businesses through stricter enforcement of payment terms and penalties for delayed payments, particularly in business-to-business transactions. Additionally, tax incentives can be introduced for companies that demonstrate efficient working capital practices, such as maintaining optimal inventory levels or adopting digital financial management systems. Through such policies, governments can not only improve the financial health of individual firms but also ensure the broader economic stability of industries that are heavily reliant on liquidity.

Industry Development

For the broader industry, ratio analysis should be institutionalized as a best practice for governance and investor communication. Industry associations can develop benchmarking reports and sector-wide ratio dashboard so to support smaller firms in performance evaluation. Training programs and digital tools that simplify financial ratio interpretation can help improve financial literacy among business owners and entrepreneurs.

Scholarly Contribution

From an academic perspective, there is considerable scope for further research into the evolving dynamics of working capital management, especially in the context of digital transformation and global economic volatility. Scholars are encouraged to explore how emerging technologies such

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as artificial intelligence, machine learning, and blockchain are reshaping traditional working capital strategies. Comparative studies between developed and developing economies could also offer insights into region-specific challenges and practices. Additionally, interdisciplinary research that combines finance with behavioural science could provide a deeper understanding of managerial decision-making in working capital management. Longitudinal studies that track the impact of working capital strategies on corporate performance over time would also be valuable for theory development and practical application. Overall, academic research should aim to provide actionable insights that bridge the gap between theory and industry practice.

Conclusion

Effective working capital management is crucial for the long-term success and sustainability of any business, as it directly impacts liquidity, operational efficiency, and profitability. While working capital management is essential for ensuring a company's liquidity and operational efficiency, it is subject to several limitations. Businesses must continuously adapt their strategies to manage these challenges, ensuring a balance between short-term operational needs and long-term financial health. Companies must optimize this balance to avoid both liquidity shortages and excessive idle cash, both of which can be detrimental to operations and financial health.

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