



## FINANCIAL PERFORMANCE AND WORKING CAPITAL MANAGEMENT OF MSME UNITS: A LITERATURE REVIEW

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### Abstract

*This literature review explores the financial performance and working capital management practices of micro and small enterprises (MSMEs), focusing on synthesizing existing research and identifying key themes. It aims to provide insights into the factors that affect financial performance and the efficiency of working capital management in this sector. Key areas of focus include the importance of effective financial management strategies, the impact of market demand, and the influence of external factors such as economic policies and access to finance. The review also highlights how these elements contribute to the overall sustainability and growth potential of MSMEs, offering a comprehensive understanding of their operational challenges.*

**Key Words:** Working Capital Management, MSME, Ratio Analysis, Cash Conversion Cycle, Financial Analysis.

### 1. Introduction

Micro, small, and medium enterprises (MSMEs) are integral to the economic fabric of many countries, especially in developing economies like India. In the financial year 2022, MSMEs contributed over 29% to India's gross domestic product (GDP), underscoring their critical role in the nation's economy. Moreover, MSMEs are a significant driver of employment and exports, making them indispensable to India's growth trajectory. Despite their importance, MSMEs face numerous challenges, particularly in managing working capital efficiently, which directly impacts their financial performance. Understanding these dynamics is vital as MSMEs navigate complex financial environments and strive for sustainability. The classification of MSMEs in India, revised in 2020, now includes micro-manufacturing and service units with investments up to 10 million Indian rupees and turnovers up to 50 million rupees. Small enterprises can have investments up to 100 million rupees and turnovers up to 500 million rupees, while medium enterprises can have investments up to 500 million rupees and turnovers up to 2.5 billion rupees. This reclassification aims to help MSMEs fully leverage government benefits without the fear of outgrowing their classification. However, some critics argue that the broad gap within the medium enterprise classification might lead to unfair competition. The majority of MSMEs, particularly microenterprises, operate informally, which further complicates financial management due to their limited access to formal finance and complex compliance requirements.

Working capital management (WCM) is a key area of concern for MSMEs. Recent studies have shown an inverted U-shaped relationship between WCM and profitability in Indian SMEs, indicating the existence of an optimal level of working capital that maximizes profitability (Ahangar, 2021; Altaf & Shah, 2017). Smaller firms, which constitute the majority of MSMEs, are especially sensitive to underinvestment in net operating working capital, making effective WCM strategies crucial. The size of a firm plays a moderating role in this relationship, with smaller firms showing greater sensitivity to underinvestment in net operating working capital (Lefebvre, 2020). In India, SMEs often employ informal WCM practices, relying on internal financing and lines of credit (Baker et al., 2019),



and they primarily use cash conversion cycle and net working capital as key metrics for managing working capital. The impact of financial constraints is also significant, as more constrained firms tend to have lower optimal working capital levels (Altaf & Shah, 2017). Financial constraints also play a significant role, with more constrained firms having lower optimal working capital levels. In December 2021, the credit growth rate for MSMEs in India was 20.5%, though this figure was much lower during the COVID-19 pandemic, reflecting the sector's vulnerability to economic shocks.

The scope of this research is comprehensive, covering various dimensions of MSMEs, including their economic contributions, challenges in financial management, and the broader implications of their informal status. As of March 2024, microenterprises accounted for 97% of all registered MSMEs in India, highlighting the dominance of small-scale operations within the sector. The study also examines employment patterns, with MSMEs employing over 110 million people in India, predominantly in urban areas. The sector's significance is further illustrated by its contribution to manufacturing output, which was nearly 30 trillion Indian rupees in the financial year 2015. Additionally, this review explores the global context, drawing comparisons with MSMEs in other countries. For example, in Thailand, small enterprises account for 49% of MSME employment, while in Africa, 41% of MSMEs use digital payments daily. Such comparisons help contextualize the challenges and opportunities faced by Indian MSMEs on a global scale. The research also delves into the impact of non-performing assets (NPAs) on medium enterprises, which had an NPA rate of 16.8% as of March 2021, the highest among MSMEs. Hence, a thorough analysis of the financial performance and working capital management of MSME units, offering insights that can inform policy decisions and enhance the resilience and sustainability of this vital sector. By consolidating existing knowledge, identifying research gaps, and proposing future research directions, this study contributes to the broader discourse on MSME development in India and beyond. The micro and small enterprise (MSE) segment, plays a vital role in the economy of any country. Understanding the financial performance and working capital management of these units is crucial for their sustainability and growth. This literature reviews the financial performance and working capital management in

MSME's with following aims:

- To review studies on Financial performance in MSME's and their WCM.
- To Identify the Methodologies used in determining the financial performance.
- To give direction for the future research

### **1.1. Importance of the Study**

MSMEs are critical in creating jobs, contributing to GDP growth, and fostering regional economic development. According to the Dun & Bradstreet (2017) report on leading MSMEs in India, access to finance is a significant challenge for the MSME sector and so the significant mismanagement in the finances of the small enterprises is also present. The MSME Census of 2006-07 highlighted that 87% of MSMEs lacked access to secure finance and often relied on internal sources such as friends or relatives for funding which ultimately gives the way for sophisticated financial management. The financial knowledge of managers of these enterprises also plays a crucial role in the provided problem. This lack of access to formal financial systems is primarily due to perceived credit risks associated with financing MSMEs, arising from issues like non-availability of valid invoices, inadequate accounting systems, and a lack of recognized buyers.

As reported in the annual MSME report for 2015-16, The sector, comprising 36 million units, employs over 80 million individuals and contributes approximately 8% to the Gross Domestic Product (GDP).



It accounts for 45% of the total manufacturing output and 40% of the nation's exports. Despite their significant contributions, MSMEs face numerous bottlenecks, particularly related to accessing low-cost capital, maintaining financial discipline, and managing market fluctuations. The diversion of funds further exacerbates the economic viability of these units. Given these challenges, this research aims to provide valuable insights into the financial performance of the plywood units in the Perumbavoor cluster. By analyzing financial data over ten consecutive years, the study seeks to offer a comparative assessment that can help identify financial efficiencies and inefficiencies. This analysis is crucial for stakeholders, including unit owners, financial institutions, and policymakers, to facilitate well-informed decision-making and effectively execute strategies that enhance the financial health and sustainability of these units.

## 2. Methodology

A narrative or formal review encompasses the background and overview of a research topic through a summary based on its analysis. The text outlines the restrictions and suggests future avenues for investigation. A systematic review follows a strict methodology and selective criteria to determine its research questions. Systematic reviews enable the precise determination and evaluation of research paper quality, reduce bias, and enhance replicability. Systematic reviews have gained popularity and largely replaced traditional narrative reviews among scholars due to their superiority (Pae, 2015). Despite the formal narrative review being an evidence-based strategy, it fails to generate scientific evidence. A meta-analysis is a statistical analysis of multiple research studies that demonstrates similar research designs (Akhter et al., 2019). The synthesis and critical appraisal of multiple studies within a particular context is aided significantly by systematic reviews (Akhter et al., 2019). A systematic review, rather than a meta-analysis, is the better choice for this study due to the risks of an incomplete dataset and compromised internal, external, construct, and statistical validity (Stone & Rosopa, 2017). Using a systematic quantitative approach, this research mapped and reviewed the antecedents of franchisee performance. This approach systematically emphasizes consistent and logical literature research, elicitation, and integration in the reporting process. The PRISMA flowchart should reflect the number of studies included and excluded throughout the literature search process. Moher, Liberati, et al. (2009a) recommend the PRISMA checklist for ensuring good reporting and rationale when including articles in a systematic review, where this practice isn't standard in traditional literature reviews. A systematic quantitative review can aid in illuminating knowledge gaps by identifying and enumerating previously known research and shedding light on what remains unexplored. (Pickering & Byrne, 2014) A systematic review encompasses an extensive body of integrative research from multiple settings (Snilstveit et al., 2012).

### 2.1. Review Process

The review process initiates by outlining the study's objectives and intentions, previously mentioned in the preceding section. The review protocol involves conducting a literature search on dependable databases using well-considered keywords and terms and adhering to predetermined screening standards according to the stated goals. We chose several databases including Scopus, but since many articles weren't available on Scopus, we also searched Google Scholar and the Open-Alex API. The Boolean operator "AND" was used to retrieve records containing all the specified search terms from the databases. To meet the demands of this systematic review, several inclusion criteria were applied.

Introductory search terms were employed in the title, abstract, or keywords. The search yielded more recent data due to not applying a specific timeframe. Further restrictions were imposed on the social science investigation, specifically within the business management discipline. Non-journal



publications, like books reviews, conference papers, book chapters, and thesis, were excluded from the research databases in this review. The databases were searched using the terms "Financial Performance" and/or their combinations: "Working Capital Management," AND "MSME" OR "SME".

As of August 2024, the literature search from the publishers resulted in 96 research papers; 2 in the Scopus database, 50 in google scholar and 44 from Open Alex. Areas of studies such as financial performances, working capital management on MSME's were included in this study. 84 research papers were selected as suitable from 96 initially identified papers after eliminating duplicates. 57 articles were reviewed by two authors to meet the research requirements and eligibility. 34 articles met the inclusion criteria and were incorporated in this review, as figure 1 demonstrates.

## 2.2. Classification

Researchers initiated study evaluation by creating a spreadsheet with applicable categories and subgroups for data input and retrieval from articles. The table encompasses details on Authors, Objectives, and Methodologies. The papers were categorized according to their focus on Financial analysis factors or working capital management factors. Examining the applied measure revealed different categories of financial performance measuring scales. All articles underlying ideas and their relationships with various constructs were consolidated in one column for easier critical analysis. The method for classification was revised iteratively based on the findings of the review studies.

**Fig 1. The literature review process, as described in 2009, is explained in the text. Moher et al. (2009a) published this study.**

Articles Identified through Scopus, Google Scholar and Open-Alex API (n=96)
⇓
Articles after Duplicates (84) removed
⇓
Articles Screened (n=57) ⇒ Articles Excluded (n=27)
⇓
Full Text Articles assessed for eligibility (n=57) ⇒ Full Text Articles excluded with valid reasons (n=23)
⇓
Studies included for final literature review (n=34)

## 2.3. Mutual qualities of the chosen documents

The articles were published on financial performance and working capital management in the MSME sector ranges from 2004 to 2024. The year 2004 marked the inception of research on financial and environmental performance of public utilities, while no previous studies were found on MSMEs in the plywood industry in reputed databases. The preferred methodology for analyzing financial

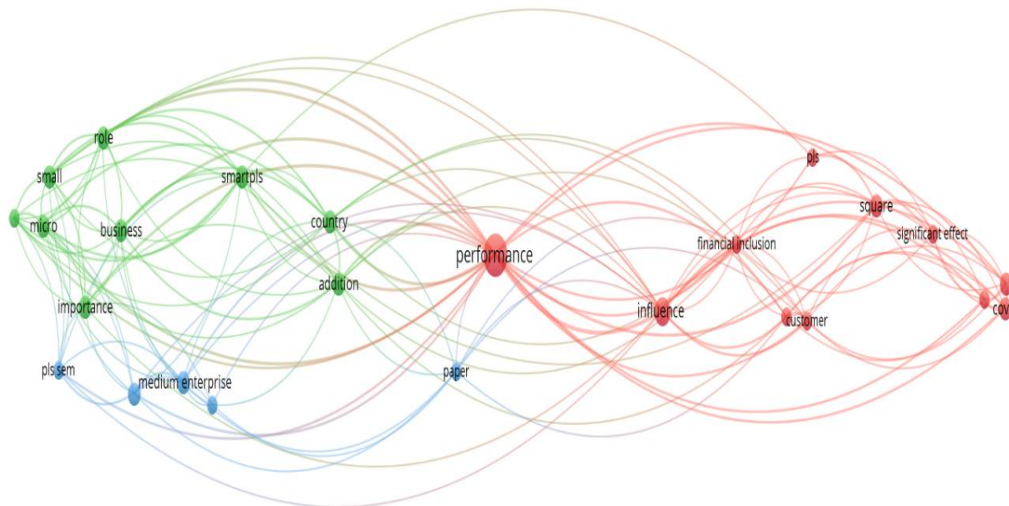


performance and working capital management variables in research papers is Ratio Analysis. Ratio Analysis is utilized across multiple dimensions, encompassing profitability evaluation (Baskar, 2019; Gjoni et al., 2022), cash conversion cycle management (Panigrahi, 2017; Ahmad & Rana, 2021), inventory assessment (Prajapati, 2019; Silambarasan et al., 2022), and payables/receivables monitoring (Panigrahi, 2017; Prajapati, 2019). All research papers stress the importance of managing working capital for better financial performance. Each study explores the impact of working capital management practices on profitability, liquidity, and efficiency. The most common words used in all the documents across literature are shown in Fig 2.



**Figure 2. Word Cloud**

Note: This word cloud was created using the MAXQDA software. It was generated by analyzing the entire text of the literature, and only words that appeared at least five times were included.



**Figure 3. Bibliometric Coupling**

Note: This figure was created using Vos Viewer and the Open Alex API, based on the terms 'Financial Analysis,' 'Working Capital Management,' and 'MSME'.



**Table 1: Segmentation by categories and Sub-Categories (Variables)**

Category	Variable	Studies
Financial Performance Variables	Profitability	Baskar (2019); Gjoni, Çela, Mlouk, &Marku (2022)
	Profitability	Gopi (2018); Silambarasan, Saranya& Raja (2022)
	Financial Efficiency	Rahman&Meera (2021)
	Financial Efficiency	Gupta, Raman &Tripathy (2023)
	Financial Health and Stability	Desta (2016); Yadav& Mishra (2021)
	Financial Health and Stability	Mousavi et al. (2020)
	Capital Structure	Ogbulu, Okanta&Turakpe (2018); Zulfiqar et al. (2021)
	Capital Structure	Singh & Singh (2021)
	Corporate Social Responsibility (CSR)	Pan, Sha, Zhang &Ke (2014); Pal (2017)
	Corporate Social Responsibility (CSR)	Devi et al. (2020); Okafor, Adeleye&Adusei (2021)
Working Capital Management Variables	Cash Conversion Cycle	Panigrahi (2017); Ahmad &Rana (2021)
	Cash Conversion Cycle	Tank &Dhadhal (2019)
	Inventory Management	Panigrahi (2017); Ahmad &Rana (2021)
	Inventory Management	Prajapati (2019); Silambarasan, Saranya& Raja (2022)
	Payables and Receivables	Kakakhel, Ilyas, Iqbal, &Afeef (2015); Singh & Singh (2021)
	Payables and Receivables	Panigrahi (2017); Prajapati (2019)
	Overall Working Capital Management	Moghimi&Anvari (2014); Omrani, Jafari&Mansori (2019)
	Overall Working Capital Management	Bandyopadhyay (2022)

**Table 2: Segmentation by methodologies used.**

Methodology	Studies
Integrated Fuzzy Model Combining TOPSIS and FAHP Techniques	Moghimi&Anvari (2014); Omrani, Jafari&Mansori (2019)
Panel Data Analysis	Pan, Sha, Zhang &Ke (2014); Kakakhel, Ilyas, Iqbal, &Afeef (2015); Pal (2017); Singh & Singh (2021); Okafor, Adeleye&Adusei (2021)
Fixed and Random Effect Models	Kakakhel, Ilyas, Iqbal, &Afeef (2015); Singh & Singh (2021)
CAMEL Rating System	Desta (2016); Yadav& Mishra (2021)
Regression Analysis	Kasbun, Teh& San Ong (2016); Demirel&Eskin (2017); Kumar &Subramanyam (2017); Devi et



	al. (2020); Zulfiqar et al. (2021)
Financial Ratio Analysis	Rao (2016); Naz, Ijaz&Naqvi (2016); Baskar (2019); Prajapati (2019); Tank &Dhadhal (2019); Silambarasan, Saranya& Raja (2022); Gjoni, Çela, Mlouk, &Marku (2022)
ANOVA (Analysis of Variance)	Rao (2016); Panigrahi (2017); Tank &Dhadhal (2019)
Fuzzy DEMATEL (Decision-Making Trial and Evaluation Laboratory)	Mousavi et al. (2020)
DEA (Data Envelopment Analysis)	Rahman&Meera (2021)
Dynamic Panel GMM (Generalized Method of Moments)	Bandyopadhyay (2022)
fsQCA (Fuzzy-set Qualitative Comparative Analysis)	Lassala, Orero-Blat &Ribeiro-Navarrete (2021)
Paired t-test	Gupta, Raman &Tripathy (2023); Nguyen (2022)

**Table 3: Segmentation by Industry-wise studies**

SME and Micro Enterprises	Ratio Analysis	Prajapati (2019); Tank &Dhadhal (2019); Silambarasan, Saranya& Raja (2022)
SME and Micro Enterprises	ANOVA (Analysis of Variance)	Tank &Dhadhal (2019)
SME and Micro Enterprises	Dynamic Panel GMM (Generalized Method of Moments)	Bandyopadhyay (2022)
SME and Micro Enterprises	Fixed and Random Effect Models	Singh & Singh (2021)
Banking Sector	CAMEL Rating System	Desti (2016); Yadav& Mishra (2021)
Banking Sector	DEA (Data Envelopment Analysis)	Rahman&Meera (2021)
Mining Industry	Panel Data Analysis	Pan, Sha, Zhang &Ke (2014)
Mining Industry	Regression Analysis	Kasbun, Teh& San Ong (2016)
Steel Industry	Financial Ratio Analysis	Rao (2016)
Cement Industry	Financial Ratio Analysis	Demirel&Eskin (2017); Baskar (2019); Naz, Ijaz&Naqvi (2016)
Cement Industry	ANOVA (Analysis of Variance)	Panigrahi (2017)
Cement Industry	Fuzzy DEMATEL (Decision-Making Trial and Evaluation Laboratory)	Mousavi et al. (2020)
Real Estate and Construction Sector	Paired t-test	Gupta, Raman &Tripathy (2023)
Real Estate and Construction Sector	Financial Ratio Analysis	Gjoni, Çela, Mlouk, &Marku (2022)
General Industry Analysis	fsQCA (Fuzzy-set Qualitative Comparative Analysis)	Lassala, Orero-Blat &Ribeiro-Navarrete (2021)
General Industry Analysis	Content Analysis and Regression Models	Okafor, Adeleye&Adusei (2021); Devi et al. (2020)



**Table 4: Segmentation by County-wise studies**

Country	Industry	Year of Study	Authors
Iran	Various Firms	2006-2009	Vahid, Elham, Mohsen, Mohammadreza (2012)
Nigeria	Manufacturing Firms	2007-2011	Ajao, Nkechinyere (2012)
Nigeria	Manufacturing Firms	2007-2011	Uremadu, Egbide, Enyi (2012)
Ethiopia	Cooperative Unions	2008-2012	Vallalnathan, Joriye (2013)
Ethiopia	Micro and Small Enterprises	2008-2012	Tirngo (2013)
Kenya	Tea Companies	2005-2012	Yegon, Kiprono, Willy (2014)
South Africa	SMEs	2008-2012	Enow, Brijlal (2014)
Spain	SMEs	1995-2009	Bonas-Caballero, Garcia-Teruel, Martinez-Solano (2014)
Brazil	Public Companies	1995-2009	De Almeida, Eid (2014)
United States	Various Companies	1982-2011	Aktas, Croci, Petmezas (2015)

The reviewed studies comprehensively analyze financial performance and working capital management (WCM) in diverse industries, employing multiple variables and methodologies. Researchers including Baskar (2019), Gjoni et al. (2022), Gopi (2018), and Silambarasan et al. (2022) have explored the impact of WCM on profitability. Rahman and Meera (2021), Gupta et al. (2023) focused on financial efficiency, while Desta (2016), Yadav and Mishra (2021), and Mousavi et al. (2020) studied financial health and stability. The studies by Ogbulu et al. (2018), Zulfiqar et al. (2021), and Singh and Singh (2021) explored the role of capital structure in their investigations. According to Pan et al. (2014), Pal (2017), Devi et al. (2020), and Okafor et al. (2021), CSR practices improve financial outcomes. Panigrahi (2017), Ahmad and Rana (2021), and Tank and Dhadhal (2019) analyzed the cash conversion cycle in WCM, while Prajapati (2019) and Silambarasan et al. (2022) evaluated inventory management (See Table 1). Kakakhel et al. (2015), Singh and Singh (2021), Moghimi and Anvari (2014), Omrani et al. (2019), and Bandyopadhyay (2022) evaluated payables and receivables using various methods such as integrated fuzzy models combining TOPSIS and FAHP (Moghimi&Anvari, 2014; Omrani et al., 2019), panel data analysis (Pan et al., 2014; Kakakhel et al., 2015; Pal, 2017; Singh & Singh, 2021; Okafor et al., 2021), and fixed and random effect models (Kakakhel et al., 2015; Singh & Singh, 2021). These studies employed a range of techniques including the CAMEL rating system, regression analysis, financial ratio analysis, and ANOVA. Additionally, Desta (2016), Yadav and Mishra (2021), Demirel and Eskin (2017), Zulfiqar et al. (2021), Rao (2016), Baskar (2019), and Panigrahi (2017), as well as Tank and Dhadhal (2019), are examples of researchers who applied these methods. The study employed advanced methods like Fuzzy DEMATEL (Mousavi et al., 2020), DEA (Rahman & Meera, 2021), dynamic panel GMM (Bandyopadhyay, 2022), fsQCA (Lassala et al., 2021), and paired t-tests (Gupta et al., 2023; Nguyen, 2022) (See Table 2).

In Table 3 one can see the cement, banking, mining, steel and MSME enterprise industries with the use of distinct analytical methodologies including integrated fuzzy models, CAMEL rating system,





panel data analysis, financial ratio analysis, ANOVA, dynamic panel GMM, and fixed and random effect models were implemented. Paired t-tests and fsQCA were used in real estate and construction sectors analyses, as well as in general industry studies. The complexity of WCM (Workforce Cost Management) and financial performance analysis is highlighted by the extensive methodological diversity, emphasizing the significance of selecting fitting methodologies for each industry context's unique challenges and variables.

The Table 4 presents a comprehensive overview of studies conducted on working capital management (WCM) across various countries and industries over different periods. In Iran, Vahid et al. (2012) analyzed WCM across various firms from 2006 to 2009, focusing on metrics such as the average collection period and cash conversion cycle to evaluate their impact on business performance. In Nigeria, Ajao and Nkechinyere (2012) explored how WCM affects profitability in manufacturing firms between 2007 and 2011 using multivariate analysis, while Uremadu et al. (2012) further examined the influence of specific WCM components, noting the contrasting impacts of the cash conversion cycle and accounts payable period on profitability. In Ethiopia, Vallalnathan and Joriye (2013) studied cooperative unions from 2008 to 2012, highlighting the positive effects of efficient WCM on profitability, while Tirngo (2013) focused on micro and small enterprises, identifying a positive link between accounts payable periods and profitability but negative associations with unsold goods and receivables. Kenyan tea companies were studied by Yegon et al. (2014) from 2005 to 2012, who found that certain WCM aspects, like the cash conversion cycle, negatively impacted financial performance. In South Africa, Enow and Brijlal (2014) examined SMEs from 2008 to 2012, identifying both negative and positive correlations between WCM components and profitability. Spanish SMEs were analyzed by Bonas-Caballero et al. (2014) from 1995 to 2009, revealing a concave relationship between WCM and profitability, indicating an optimal WCM level for maximizing profit. In Brazil, De Almeida and Eid (2014) investigated public companies from 1995 to 2009, concluding that increased working capital might diminish company value. Lastly, Aktas et al. (2015) studied various U.S. companies between 1982 and 2011, discovering that aligning WCM with an optimal level could enhance stock performance and overall company value.

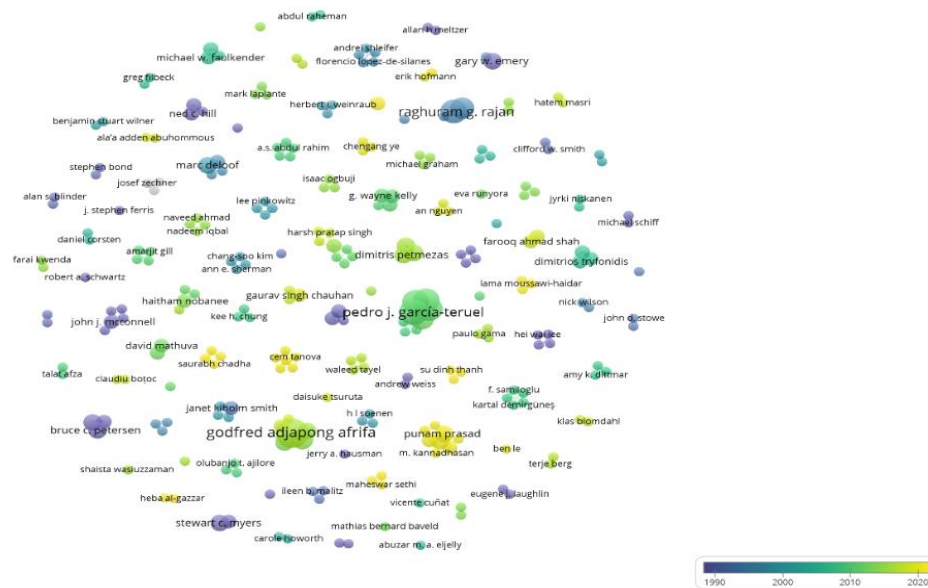


Figure 2: Bibliometric Co-Authorship occurrences



Note: This figure illustrates the co-authorship occurrences, where at least one author is involved in each paper. A total of 275 documents meet the threshold, resulting in the formation of 104 clusters. Among these, a minimum of 5 items per cluster leads to a final grouping of 9 clusters.

Here Fig 2. Shows the bibliometric analysis of co-authorship in the selected articles revealed a striking lack of connections, with only a few instances of collaboration among authors. This suggests a fragmented research community where researchers predominantly work in isolation. Such fragmentation could be attributed to the niche nature of the topics under study or the emerging status of the field. The absence of robust collaborative networks might limit the exchange of ideas and slow down the advancement of knowledge in this area. To address this, initiatives aimed at fostering collaboration, such as targeted conferences and research networks, could be highly beneficial.

**Table 5: Research Papers Investigated**

Authors	Objective	Methodology	Findings	Contribution
Moghimi&Anvari (2014)	Evaluate the financial performance of Iranian cement companies	Integrated fuzzy model combining TOPSIS and FAHP techniques. Applied to eight Iranian cement firms listed on the Tehran Stock Exchange	Provided a performance ranking of the companies, indicating relative performance scores. Suggested that the method could be adapted to other sectors.	Introduced a novel methodological approach in performance evaluation, emphasizing adaptability to different industries.
Pan, Sha, Zhang &Ke (2014)	Explore the relationship between financial performance and CSR in the Chinese mining industry	Panel data analysis from 228 Chinese mineral companies (2010-2013). Regression analysis was used	Identified significant relationships between specific CSR issues and corporate financial performance (CFP). Supplier, customer, and environmental responsibilities often had negative impacts on CFP, while shareholder responsibility had a positive impact.	Highlighted the complex interaction between CSR and financial performance in the mining industry, with implications for stakeholders
Kakakhel, Ilyas, Iqbal, &Afeef (2015)	Investigate the impact of CSR on the financial performance	Fixed and random effect models, with a preference for the fixed model based on the Hausman test.	Found a strong positive correlation between CSR and financial success,	Provided empirical evidence supporting the positive impact of



	of Pakistani cement firms.	Analyzed data from 15 companies over 2008-2014	affirming the theoretical link between these variables.	CSR on financial performance in the cement industry.
Desti (2016)	Evaluate the financial performance of top African banking companies	Analysis of financial statements from 2012-2014. Used the CAMEL composite rating.	Banks showed strong ratings in capital adequacy and earnings ability but weaker ratings in asset quality, management quality, and liquidity. Overall rating was "Fair"	Suggested the periodic use of CAMEL ratings to improve resilience against market fluctuations.
Kasbun, Teh& San Ong (2016)	Examine the impact of sustainability reporting on financial performance in Malaysian public enterprises	Regression analysis linking sustainability reporting with financial success.	Positive association between sustainability reporting and financial performance, particularly in economic, social, and environmental dimensions.	Emphasized the importance of sustainability for enhancing business efficiency, despite challenges in implementation.
Rao (2016)	Assess the financial efficiency of Indian public sector steel companies.	Financial ratios and ANOVA used for analysis over a ten-year period (2006-2015).	Identified poor solvency and declining efficiency in generating returns for the companies.	Provided insights into the financial challenges facing public sector steel firms in India.
Naz, Ijaz&Naqvi (2016)	Investigate the financial performance of Pakistani cement companies.	Ratio analysis and model construction for predicting financial performance.	Positive correlation among several ratios with financial performance, except leverage. Identified key factors influencing financial outcomes.	Reinforced the importance of profitability, liquidity, and asset utilization in financial performance, while questioning the role of leverage.
Demirel&Eskin (2017)	Analyze the financial	Financial ratio analysis of 16 cement	Found strong correlations	Bridged the gap between financial



	structure and environmental impact in the cement industry.	firms on the Istanbul Stock Exchange (2011-2013).	between financial ratios and emission levels, with certain financial metrics negatively impacting emissions.	structure and environmental considerations in the cement industry.
Kumar & Subramanyam (2017)	Assess shareholder value using MVA, EVA, and stock market returns in Indian cement companies.	Regression analysis and other statistical methods used on 20 companies (2005-06 to 2014-15).	EVA was identified as the most significant measure related to stock market returns. Ultra Tech Cement ranked highest.	Provided a comprehensive evaluation of shareholder value creation metrics, emphasizing EVA's importance.
Pal (2017)	Explore the impact of climate change policy on the Indian cement industry.	Panel data analysis (2010-2014) of production, energy intensity, and CO2 emissions.	Inverse relationship between energy intensity and production; positive correlation between CO2 emissions and production.	Highlighted the role of climate change policies in promoting efficient production in the cement sector.
Panigrahi (2017)	Assess the efficacy of working capital management in the Indian cement sector.	Analysis of 30 Bombay Stock Exchange-listed firms (2006-2015).	Positive correlation with outstanding debt days, negative with inventory and payable days. Suggested detrimental effects of reducing the cash conversion cycle.	Challenged the conventional view of working capital management, proposing a nuanced understanding of its impact on profitability.
Daryanto (2018)	Analyze the financial health of two Indonesian SOEs in the cement industry.	Financial ratio analysis (2011-2015).	Both SOEs exhibited healthy financial conditions, with specific ratings for key ratios.	Offered a detailed assessment of financial health in the Indonesian cement industry, emphasizing the strengths of SOEs.
Fogarassy (2018)	Investigate the	Introduction of key	EA often driven	Provided a



	impact of environmental accounting on financial performance in the cement sector.	performance indicators linked to a circular benchmarking model.	by government regulation, with potential profitability enhancements in the industrial sector.	framework for understanding the intersection of environmental accounting and financial performance in the context of decarbonization.
Gopi (2018)	Analyze the financial results of Indian SMEs using the extended DuPont approach.	Analysis of ROE components in three cement companies (2006-2015).	Decline in ROE, with similar contributions of the five factors among the companies.	Demonstrated the utility of the extended DuPont approach in evaluating financial performance.
Ogbulu, Okanta&Turakpe (2018)	Investigate the impact of capital structure on financial performance in Nigerian cement companies.	ARDL method applied to annual financial reports (2006-2015).	Mixed impacts of capital structure variables on financial performance indicators, with control variables also playing a role.	Highlighted the complexity of capital structure decisions in the Nigerian cement industry.
Baskar (2019)	Analyze the profitability performance of JK Tyre & Industries Limited.	Financial analysis over ten years (2008-2009 to 2017-2018).	Unsatisfactory net profit-earning capacity but strong profitability in terms of ROE, ROA, and ROCE.	Identified key profitability challenges and strengths in the Indian tire industry.
Omrani, Jafari&Mansori (2019)	Assess the performance of Tehran Stock Exchange-listed cement companies.	Fuzzy model using FAHP and TOPSIS techniques.	Identified top-performing companies and provided insights for improving others.	Offered a structured approach for performance evaluation in the cement sector.
Prajapati (2019)	Analyze the financial performance of select SME companies in India.	Ratio analysis.	Satisfactory financial positions but identified areas for improvement in short-term solvency.	Provided practical insights into financial management challenges in Indian SMEs.



Tank & Dhadhal (2019)	Analyze profitability in Indian MSMEs.	Ratio analysis and ANOVA (2009-2018).	Notable variations in profitability metrics among selected companies.	Highlighted the diversity in financial performance within the MSME sector.
Devi et al. (2020)	Analyze CSR disclosures in Indian cement companies and their impact on financial performance.	Content analysis of annual reports and regression analysis (2012-2018).	Mixed relationships between CSR disclosures and financial performance.	Provided insights into the evolving role of CSR in financial performance in India.
Mousavi et al. (2020)	Analyze the financial performance of Iranian SMEs using a fuzzy DEMATEL approach.	Fuzzy DEMATEL for evaluating the influence of financial and non-financial factors.	Provided a holistic view of factors affecting financial performance.	Offered a comprehensive methodology for evaluating SME performance in Iran.
Rahman & Meera (2021)	Investigate the financial performance of Islamic banks in Malaysia.	DEA method applied to five Islamic banks over a ten-year period (2010-2019).	Positive correlation between CSR and financial success, affirming the theoretical link between these variables.	Provided empirical evidence supporting the positive impact of CSR on financial performance in the cement industry.
Singh & Singh (2021)	Explore the role of leverage in determining financial performance in Indian MSMEs.	Fixed and random effect models applied to data from 50 companies (2009-2018).	Leverage negatively impacts financial performance, emphasizing the importance of debt management.	Reinforced the importance of financial prudence in the MSME sector, particularly concerning leverage.
Yadav & Mishra (2021)	Examine the financial health of Indian public sector banks using CAMEL analysis.	Analysis of 19 banks (2016-2020).	Strong financial positions, with variations in specific CAMEL components.	Provided a comprehensive assessment of public sector banks' financial health.



Ahmad & Rana (2021)	Evaluate the impact of working capital management on profitability in Indian MSMEs.	Ratio analysis and panel data analysis (2010-2019).	Positive impact of efficient working capital management on profitability, particularly in inventory management.	Reinforced the importance of working capital management in ensuring MSME profitability.
Zulfiqar et al. (2021)	Investigate the impact of capital structure on financial performance in the Pakistani cement industry.	Regression analysis of 15 companies (2010-2019).	Positive relationship between equity and financial performance, negative relationship with debt.	Offered insights into capital structure decisions in the Pakistani cement sector.
Lassala, Orero-Blat & Ribeiro-Navarrete (2021)	Examine the financial success of indexed firms concerning the pursuit of Sustainable Development Goals (SDGs)	Applied fsQCA method using data from the IBEX 35 stock market index in Spain.	The study identified configurations where SDGs and financial performance were related. Interestingly, companies not implementing SDGs historically achieved better financial performance, with some configurations showing that the absence of SDGs led to a strong return on equity (ROE). Conversely, others indicated that SDGs were associated with lower ROE.	Provided a nuanced understanding of the relationship between SDGs and financial success, challenging the notion that SDGs universally contribute to better financial outcomes.



Okafor, Adeleye&Adusei (2021)	Investigate the connection between financial performance and corporate social responsibility (CSR) spending among top 100 U.S. tech companies	Content analysis and regression models were employed to evaluate CSR's impact on financial performance.	The study found a positive correlation between CSR spending and financial performance, with increased CSR spending being associated with higher revenue and profitability.	Reinforced the argument that CSR activities can lead to enhanced financial outcomes, particularly in revenue and profitability in the tech industry.
Bandyopadhyay (2022)	Investigate the relationship between capital infusion and various performance criteria in public sector banks in India.	Dynamic panel generalized method of moments (GMM) was used to analyze data from 21 public sector banks over nine years.	Capital infusion programs significantly impacted the performance of Indian public sector banks by meeting regulatory capital adequacy requirements, positively influencing market capitalization, and improving net interest margins.	Demonstrated the importance of capital infusion in enhancing the financial stability and performance of public sector banks, highlighting the critical role of government interventions.
Gjoni, Çela, Mlouk, &Marku (2022)	Analyze factors affecting the financial success of Albanian construction enterprises.	The study employed financial measures like profitability, debt, and liquidity ratios, with ROA as the predictor, analyzing data from 100 construction firms (2018-2020).	Positive correlations were found between financial ratios (except for leverage ratio, which had a negative correlation) and financial success.	Offered insights into the key financial indicators that drive success in the Albanian construction industry, with a particular emphasis on managing leverage.
Nguyen (2022)	Investigate the impact of the COVID-19 pandemic on	The study used the Wilcoxon signed rank test to compare financial ratios from	The study found a decline in financial efficiency,	Provided a detailed account of how the pandemic





	the financial performance of Vietnamese logistics businesses listed on the stock market.	2019 and 2020 across 114 logistics companies.	including returns on assets, receivable turnover, and leverage, due to the pandemic's negative effects on supply chains, export activities, and international transportation.	adversely affected the financial performance of logistics companies in Vietnam, highlighting vulnerabilities in global supply chains.
Silambarasan, Saranya& Raja (2022)	Analyze the financial performance of the UltraTech cement industry using the DuPont Model.	Financial data from 2012 to 2021 was analyzed, focusing on the equity multiplier, return on equity, and net profit margin.	The company's financial performance showed a positive trend, though the study recommended focusing on improving asset turnover.	Offered a detailed case study of a major cement company, demonstrating the utility of the DuPont Model in assessing financial health and providing actionable recommendations for improvement.
Zhou, Liu & Luo (2022)	Explore the relationship between sustainable development, ESG performance, financial performance, and company market value in Chinese listed companies.	Analyzed ESG rating data from 2014 to 2019, with financial performance serving as a mediating variable.	Improvements in ESG performance positively influenced company market value, with operational capacity mediating this relationship, especially for state-owned listed companies.	Provided evidence of the positive impact of ESG performance on market value, highlighting the role of financial and operational capacities as mediators.
Gupta, Raman &Tripathy (2023)	Investigate the impact of mergers and acquisitions (M&A) on financial performance in the building and real estate sectors.	Employed paired t-test analysis on data from 2011 to 2020.	M&A led to significant improvements in liquidity, profitability, and efficiency ratios, supporting the synergy theory.	Affirmed the benefits of M&A in the real estate and construction sectors, particularly in improving financial performance through enhanced synergy.



### **3. Areas and Themes Explored**

#### **3.1. Financial Performance of MSME**

Financial performance always serves as a vital indicator of a company's success, demonstrating its capacity to produce profits, control expenses, and maintain operational stability over time. Some researchers have already highlighted the unique financial challenges faced by MSMEs, including limited access to formal credit, high borrowing costs, and vulnerability to economic fluctuations (Beck, Demirguc-Kunt, & Maksimovic, 2005). These challenges are often exacerbated by macroeconomic factors such as inflation, interest rates, and fiscal policies that directly impact the financial health of MSMEs (Chittenden, Hall, & Hutchinson, 1996). Financial effectiveness of MSMEs would fluctuate due to external economic factors and internal management practices. For example, economic events like demonetization might have significantly impacted MSMEs' financial metrics such as profitability, liquidity, and solvency (Shah, 2017). Moreover, the economic slowdown during the COVID-19 pandemic is expected to have further strained the financial performance of these enterprises.

Identifying specific patterns in financial performance over time can provide insights into the cyclical nature of business operations, the impact of economic policies, and the effectiveness of management strategies. Research has shown that financial performance patterns may get influenced by both internal factors, such as management efficiency and innovation, and external factors, such as market demand and regulatory changes (Love & Roper, 2015).

#### **3.2. Working Capital Management of MSME**

Working capital management is vital for the daily operations of MSMEs, influencing their liquidity, operational efficiency, and overall financial stability. Effective working capital management ensures that businesses can meet their short-term obligations and continue operations without financial stress (Deloof, 2003). However, MSMEs often struggle with working capital management due to factors such as irregularity in maintaining cash flows, delay in payments, and very limited access to credit (Garcia-Teruel & Martinez-Solano, 2007). The effective working capital management practices—such as optimizing inventory levels, managing receivables, and negotiation in favorable credit terms with suppliers—have a direct and positive impact on the financial performance of MSMEs. Some studies have already demonstrated that poor working capital management can lead to liquidity issues, increased borrowing, and even business failure, particularly in the MSME sector (Lazaridis & Tryfonidis, 2006). Therefore, understanding the industry type, its working and improving these practices is crucial for enhancing the financial health of MSMEs.

#### **3.3. MSME and Taxation**

The implementation of the Goods and Services Tax (GST) in India in 2017 marked a substantial transformation in the nation's tax system, with the objective of establishing a cohesive and integrated market by replacing multiple indirect taxes with a single tax. While GST was expected to simplify tax compliance and reduce the tax burden, its impact on MSMEs has been a subject of debate. Some studies suggest that GST has led to better cash flow management and increased transparency, while others highlight challenges such as higher compliance costs and cash flow disruptions (Mukherjee, 2019). GST, by altering the tax landscape, has had a profound impact on how MSMEs manage their working capital and sales. The introduction of GST required businesses to adapt to new tax filing requirements and payment timelines, which could influence their cash flow and working capital cycles. For example, the need to pay GST on goods and services before receiving payment from customers might have strained the cash flows of MSMEs, particularly those with limited access to



credit (Poddar, 2018). On the other hand, the input tax credit mechanism under GST could have potentially improved cash flow by reducing the tax burden on inputs. Therefore, the relationship between GST and MSME financial performance is multifaceted and warrants detailed investigation.

#### **4. Discussion and Synthesis**

The literature highlights the diverse approaches and methodologies employed in analyzing financial performance across different industries, with a notable focus on the MSME Sector. A recurring theme is the impact of CSR and environmental considerations on financial outcomes, with mixed results indicating the complex nature of these relationships. Additionally, the role of capital structure and working capital management emerges as critical factors influencing financial performance, particularly in MSMEs and the cement sector. While some studies emphasize the positive impact of CSR on financial performance (Kakakhel et al., 2015; Pan et al., 2014), others present a more nuanced view, with certain CSR activities potentially harming financial outcomes (Devi et al., 2020). The methodologies also vary significantly, ranging from fuzzy logic models (Moghimi&Anvari, 2014; Omrani et al., 2019) to traditional ratio analysis (Daryanto, 2018; Prajapati, 2019), reflecting the diversity in research approaches. The literature presents diverse perspectives on financial performance across different industries, from construction to logistics and public sector banks. A recurring theme is the impact of external factors, such as CSR, SDGs, and capital infusion, on financial outcomes. Studies like those by Lassala et al. (2021) and Zhou et al. (2022) challenge the conventional wisdom that sustainable practices universally enhance financial performance, offering nuanced insights into when and how these practices contribute to or detract from financial success. While some studies (e.g., Okafor et al., 2021) highlight the positive impact of CSR and sustainable practices on financial performance, others (e.g., Lassala et al., 2021) present a more complex picture, suggesting that the absence of such practices can sometimes lead to better financial outcomes. The methodologies vary significantly, with studies employing techniques ranging from content analysis and regression models to advanced methods like dynamic panel GMM and fsQCA, reflecting the diversity in research approaches.

This analysis provides a comprehensive overview of the current state of research in financial performance evaluation, with a focus on the cement industry and related sectors. It offers valuable insights into the factors influencing financial outcomes, while also highlighting areas for further exploration, such as the long-term impact of CSR and environmental policies on financial performance.

The findings from the reviewed studies demonstrate that WCM plays a critical role in determining corporate performance across different contexts. However, the relationship between WCM and profitability is complex and varies depending on factors such as industry, firm size, economic environment, and specific WCM components.

For instance, while the cash conversion cycle is often negatively associated with profitability, other components like accounts receivable and inventory turnover periods can have either positive or negative impacts depending on the context. This suggests that there is no one-size-fits-all approach to WCM, and firms must tailor their strategies to their specific circumstances to optimize performance. Additionally, the studies highlight the importance of not only managing WCM efficiently but also understanding the optimal levels of WCM that maximize profitability without compromising liquidity. This is particularly evident in the findings from Spanish SMEs and U.S. companies, where



there is a clear turning point beyond which further investment in working capital becomes detrimental to profitability.

#### **4.1 Research Gap**

The existing literature on working capital management in MMSMEs is widely scattered and lacks consistency, indicating that the systematic and organized literature in this area is still lacking (Phan et al., 2005). Assessment of working capital and measuring financial performance is a complicated affair, owing to the proliferation of scholarly studies and literature in the field of financial management. There are several other compelling justifications for the significance of pursuing studies in this domain. They are given as under:

Firstly, in addition to the aforementioned reasons, a substantial body of research and studies exists that have examined the financial performance of industrial units utilizing appropriate metrics aligned with the aims outlined in their respective research endeavors (Nobanee, 2009; Padachi, 2006; Rahman and Nasr2007). This research study focuses on addressing a research gap by expanding the evaluation of financial performance and identifying the common financial management practices within a specific industrial cluster. Secondly, the preceding examination of empirical research demonstrates that writers have approached the analysis in many ways across several levels (Shin and Soenen, 1998; Padachi, 2006). These diverse methodologies make understanding of working capital management indicators and their dynamics a complicated issue. Although they have played a significant role in the proliferation of scholarly works pertaining to this subject matter throughout the years. The primary elements contributing to the variation in outcomes may be attributed to the many methodologies employed in measuring variables such as profitability, liquidity, solvency, efficiency, and so forth. In a similar notion Numerous researches have been conducted to examine the financial performance, including a range of components that contribute to comprehending both structural and non-structural variables that delineate the financial well-being of the firms (Ranjith, 2008 and Wu, 2001). Therefore, this research provides a clear and systematically organized research methodology for analyzing financial and non-financial data to interpret results. Thirdly, there is a scarcity of research examining the impact of GST on magnitude of sales, return on investment, and the allocation and appropriation of profits and financial performance. A comprehensive examination of the available literature reveals that there is a lack of specific information on this topic. This research gap was thoroughly filled through this investigation. Fourthly, as previous researches conducted on the link between performance and business profitability in this industrial cluster do not offer definitive guidance (Ramachandaran and Janaki Raman, 2009), the literature review and field study conducted in the Perumbavoor industrial cluster in Ernakulam District, Kerala, have identified a gap in knowledge that warrants additional investigation about financial performance and its associated practices. Hence, the current study aims to address this void by examining the correlation between financial performance indicators and company profitability within the observed entities. Fifthly, To the best of our understanding, no research has been undertaken in the state of Kerala, where industrial clusters are located. According to a report by the Department of Industries, Government of Kerala, the plywood cluster in Perumbavoor is the largest cluster of its kind in the state. Therefore, there is a dire need to conduct a research in this sector. The working capital management practices needs to be explored in this cluster, moreover the impact of GST on sales in this cluster is also explored in this study which was not investigated in previous researches. Further, this study employs analysis based on both primary and secondary data obtained directly from respondent organizations is an important research contribution as many studies in this area are perception based taking opinions only from the respondents.



Finally, the previous researches in this area lacks methodological robustness, to fill this research gap this research employs both financial analysis and statistical analysis and drawn results from both methods.

## 5. Conclusion and Future Research Directions

This review highlights the critical role MSMEs play in driving economic growth globally, with a specific focus on India. MSMEs foster entrepreneurship, enhance skills, and support the development of economies like Poland. The MSMED Act of 2006 in India has significantly boosted MSMEs, proving their importance not only in developing economies but also in advanced ones. However, despite their potential, MSMEs often struggle due to poor working capital management (WCM). Issues like irregular cash flow, delayed payments, and limited access to credit hinder their financial performance. Effective WCM practices—such as optimizing inventory, managing receivables, and securing favorable credit terms—are vital for the smooth functioning of these enterprises.

The review also identifies external challenges, including limited access to formal credit, high borrowing costs, and economic fluctuations like inflation and interest rates. For example, events such as India's demonetization impacted MSMEs' profitability, liquidity, and solvency. GST reform, though designed to simplify taxation, has had mixed effects on MSMEs, with some benefiting from improved cash flow, while others face higher compliance costs. A key finding is that both micro and small units experience similar challenges but differ in their WCM strategies. Small units tend to adopt more structured approaches due to their larger financial capacity, whereas micro units are more flexible. Access to finance remains a significant obstacle, with micro units particularly vulnerable due to their smaller scale.

### 5.1 Directions for Future Research

- Working Capital Management (WCM) Practices: Further research could explore the development of tailored WCM strategies for MSMEs, especially micro units, focusing on tools that enhance cash flow stability and improve access to credit.
- Impact of GST on MSMEs: More studies are needed to investigate the long-term effects of GST on MSME working capital and sales performance, particularly in terms of cash flow and compliance costs.
- Credit Accessibility: Research should focus on the role of alternative financing options, such as fintech solutions, to address MSMEs' limited access to formal credit and explore the effectiveness of informal lending systems.
- External Economic Factors: Investigating the impact of macroeconomic changes like inflation, interest rates, and policy shifts (such as demonetization) on MSME financial health could provide insights into how MSMEs can better navigate economic fluctuations.
- Comparative Studies: Future studies could compare MSME financial practices across developing and developed economies to identify global best practices in WCM and credit management.

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