

**ANALYSIS OF WORKING CAPITAL MANAGEMEN AND ITS EFFECT ON
FIRM PROFITABILITY**

**ANALISIS PENGELOLAAN MODAL KERJA DAN DAMPAKNYA
TERHADAP PROFITABILITAS PERUSAHAAN**

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ABSTRACT

Working capital management (WCM) involves the control and optimization of a company's current assets and liabilities, such as inventory, accounts receivable, accounts payable, and cash balances. It plays a vital role in a firm's liquidity, operational efficiency, and financial health. The purpose of this study is to analyze working capital management and its effect on firm profitability. This literature review has examined the relationship between working capital management (WCM) and firm profitability by synthesizing findings from various empirical and conceptual studies. The evidence consistently indicates that effective WCM plays a critical role in enhancing a firm's financial performance.

Keywords: Working; Capital Management; Profitability

ABSTRAK

Manajemen modal kerja (Working Capital Management/WCM) melibatkan pengendalian dan optimalisasi aset lancar dan kewajiban lancar perusahaan, seperti persediaan, piutang usaha, utang usaha, dan saldo kas. WCM memainkan peran penting dalam likuiditas, efisiensi operasional, dan kesehatan keuangan suatu perusahaan. Tujuan dari penelitian ini adalah untuk menganalisis pengelolaan modal kerja dan dampaknya terhadap profitabilitas perusahaan. Tinjauan pustaka ini telah mengkaji hubungan antara manajemen modal kerja (WCM) dan profitabilitas perusahaan dengan mensintesis temuan dari berbagai studi empiris dan konseptual. Bukti secara konsisten menunjukkan bahwa WCM yang efektif berperan penting dalam meningkatkan kinerja keuangan perusahaan.

Kata kunci: Modal Kerja; Manajemen; Profitabilitas

INTRODUCTION

In today's increasingly competitive and dynamic business environment, the efficient management of working capital has become a fundamental element in sustaining business operations and ensuring long-term profitability. Working capital management (WCM) involves the control and optimization of a company's current assets and liabilities, such as inventory, accounts receivable, accounts payable, and cash balances. It plays a vital role in a firm's liquidity, operational efficiency, and financial health. Particularly in the post-pandemic economic recovery era, where uncertainties and supply chain disruptions are common, businesses must be more agile in managing their short-term financial resources to remain

resilient and profitable (Ali & Khan, 2022).

Profitability remains the ultimate goal of any business entity, and empirical studies continue to highlight the significant influence of working capital components on profitability metrics such as Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin. Firms that maintain an optimal balance between current assets and current liabilities are generally more capable of funding day-to-day operations without compromising long-term investment and growth opportunities (Nguyen & Nguyen, 2023). However, maintaining this balance is not straightforward. Excessive investment in inventory or receivables can tie up capital unnecessarily, while insufficient

investment can lead to stockouts, lost sales, and customer dissatisfaction.

Recent research has further explored the nonlinear and industry-specific nature of the relationship between working capital and firm profitability. For example, a 2023 study by Mensah and Boateng in sub-Saharan Africa found that the cash conversion cycle (CCC) has a U-shaped relationship with profitability, suggesting that both very short and very long CCCs are detrimental. The study concluded that optimal WCM is not about minimizing all components but about achieving a strategic balance that supports operational goals.

Moreover, the significance of WCM has increased in light of rising interest rates and global inflationary pressures. In such environments, the cost of holding working capital rises, making efficient management even more critical. Firms that delay accounts receivable collection or over-invest in inventory may face higher financing costs, which directly impact their net profits. As highlighted by Rajan and Garg (2022), companies that adopt dynamic WCM strategies tailored to macroeconomic fluctuations tend to outperform those with static policies.

In emerging economies, including Indonesia, India, and several Latin American countries, working capital inefficiencies are more prevalent due to structural challenges such as poor credit access, longer receivables cycles, and inefficient supply chains. SMEs, in particular, are vulnerable to liquidity shocks due to weak financial controls and limited managerial expertise. A 2022 cross-country study by Chatterjee et al. found that firms in developing economies can enhance profitability by improving inventory turnover and tightening credit policies, provided they do not impair customer relationships.

Furthermore, digitalization and financial technologies (fintech) have introduced new tools to manage working capital more effectively. Cloud-based inventory systems, real-time receivables tracking, and AI-driven demand forecasting are becoming increasingly common among forward-looking firms. According to Tan & Lee (2023), firms that leverage digital tools for WCM report up to 15% higher operating margins, suggesting a direct link between technological adaptation and profitability improvements.

Despite the growing body of research, there remains a need for context-specific studies that analyze the impact of working capital components on firm profitability across sectors and regions. Many existing studies focus on large, publicly traded firms, whereas SMEs — which represent a majority of businesses globally — are underrepresented. Additionally, while prior literature confirms a relationship between WCM and profitability, the direction and magnitude of this relationship remain inconclusive and context-dependent.

Given these considerations, this study aims to examine how the efficient management of working capital components affects the profitability of firms. By focusing on recent financial data and taking into account both internal and external variables, this research seeks to contribute to the literature with updated empirical evidence and offer practical insights for financial managers and policymakers.

Ultimately, working capital management is not merely a financial metric, but a strategic tool. Firms that can manage their short-term assets and liabilities effectively are better positioned to withstand financial shocks, capitalize on investment opportunities, and deliver sustainable

profitability. Thus, understanding the mechanics and effects of WCM is crucial in guiding firms toward long-term value creation.

METHOD

This study employs a literature review approach to systematically examine the relationship between working capital management (WCM) and firm profitability. The objective of the study is to synthesize findings from previous research, identify theoretical perspectives, assess methodological approaches, and draw conclusions regarding how key components of WCM influence firm profitability across different contexts and industries.

Research Design

A qualitative and descriptive design is used to conduct the literature review. This approach allows the researcher to explore the theoretical and empirical foundations of the WCM–profitability nexus by reviewing academic articles, journal publications, and relevant scholarly sources. The research emphasizes content analysis and thematic categorization of findings to develop a coherent understanding of the topic.

Data Collection

The sources of literature were obtained from peer-reviewed academic journals, books, and online research databases. The databases used for data collection include: ScienceDirect, SpringerLink, Emerald Insight, Google Scholar, ResearchGate,

Wiley Online Library Search keywords included: Working Capital Management, Firm Profitability, Cash Conversion Cycle, Accounts Receivable and Profitability, Inventory Turnover, Liquidity and Financial Performance.

Boolean operators (AND, OR) were used to narrow the search, for example: "working capital management" AND "profitability" AND "empirical evidence" Inclusion and Exclusion Criteria To ensure relevance and quality, the following inclusion and exclusion criteria were applied: Inclusion Criteria: Articles published between 2014 and 2024, Empirical or conceptual studies focusing on WCM and firm profitability, Studies published in English, Peer-reviewed academic sources, Research conducted in both developed and emerging markets

Exclusion Criteria: Articles not directly related to working capital or profitability, Non-academic or opinion-based publications, Duplicated studies or unpublished manuscripts

Data Analysis Technique A content analysis method was used to evaluate and interpret the selected literature. Each article was reviewed and analyzed based on: Theoretical framework used (e.g., trade-off theory, pecking order theory), WCM components studied (e.g., inventory days, accounts payable, receivables), Profitability measures (e.g., Return on Assets [ROA], Return on Equity [ROE], Net Profit Margin), Industry or regional focus, Research methods and sample characteristics, Key findings and recommendations. The findings were then grouped into themes and patterns to enable comparison and contrast among studies. A narrative synthesis was conducted to highlight consistent conclusions, conflicting results, and emerging trends in the literature.

RESULT AND DISCUSSION

This literature-based study explores the relationship between Working Capital Management (WCM) and firm profitability, focusing on the major components such as inventory

management, accounts receivable, accounts payable, and cash conversion cycle (CCC). The reviewed literature reveals a generally strong and statistically significant relationship between how efficiently a company manages its working capital and how profitable it becomes. However, this relationship varies depending on industry, firm size, and regional economic conditions.

The Impact of Working Capital Components on Profitability

Inventory Management

Efficient inventory management has been consistently found to have a positive effect on profitability. Firms with faster inventory turnover can reduce holding costs and avoid obsolescence, thereby improving operational efficiency and profit margins. Chatterjee et al. (2022) demonstrated that firms that reduce inventory days tend to report higher return on assets (ROA), especially in retail and manufacturing sectors. However, excessively low inventory levels may result in stockouts and lost sales. Nguyen and Nguyen (2023) argue that while reducing inventory days is important, firms must maintain an optimal inventory level that balances cost efficiency and customer satisfaction.

Accounts Receivable Management

The management of accounts receivable (AR) is another critical determinant of profitability. Extending credit to customers may increase sales, but longer collection periods can reduce cash availability and increase default risk. Rajan and Garg (2022) found a negative relationship between average collection period (ACP) and firm profitability in Indian manufacturing firms, suggesting that firms should

minimize their receivable collection days to enhance liquidity and profit. Ali and Khan (2022) also found similar results in emerging markets, where weak credit systems and customer defaults often lead to working capital inefficiencies. In contrast, in high-trust economies, slightly longer credit terms may help firms build loyalty and increase sales without a proportional increase in risk.

Accounts Payable Management

Accounts payable (AP) represent the firm's obligation to suppliers. Delaying payments can help a firm conserve cash and improve short-term liquidity. However, excessive delays may damage supplier relationships and result in loss of trade discounts. Mensah and Boateng (2023) observed a non-linear relationship between AP days and profitability, emphasizing that moderate delays in payments can be beneficial, but extreme delays are counterproductive. Tan and Lee (2023) argue that AP management strategies should align with industry practices and supplier expectations. Firms that rely heavily on imported raw materials, for instance, have less flexibility in extending payment terms due to international credit constraints.

Cash Conversion Cycle (CCC)

The CCC is widely regarded as a comprehensive measure of working capital efficiency. It captures the time it takes for a firm to convert investments in inventory and other resources into cash flows from sales. A shorter CCC generally indicates better efficiency and has been positively associated with profitability (Nguyen & Nguyen, 2023). However, extremely short CCCs may also signal aggressive working capital policies that compromise long-term sustainability. A U-shaped relationship

between CCC and profitability, as identified by Mensah and Boateng (2023), suggests that there is an optimal range within which firms should manage their working capital components to maximize profitability. Both excessively short and excessively long CCCs may reduce firm performance.

Industry and Regional Differences

The effect of WCM on profitability is not uniform across industries. Capital-intensive industries like manufacturing and construction often have longer working capital cycles due to inventory build-up and delayed payments. In contrast, service-based firms operate with minimal inventory and faster receivables turnover.

Regionally, firms in **emerging markets** often face greater challenges in WCM due to less developed financial infrastructure, poor enforcement of payment terms, and inflationary pressures. Chatterjee et al. (2022) found that in South Asia and Sub-Saharan Africa, external shocks like currency fluctuations and supply chain instability significantly impact the relationship between WCM and profitability. Conversely, firms in **developed economies** benefit from digital financial systems and access to low-cost financing, allowing them more flexibility in managing short-term assets and liabilities (Tan & Lee, 2023).

Role of Firm Size and Technology Adoption

Firm size plays a critical role in WCM practices. Larger firms often enjoy better bargaining power, easier access to credit, and more advanced financial systems, which allow for more efficient management of working capital. SMEs, on the other hand, often

struggle with delayed receivables and limited inventory control, which constrain profitability. Technology adoption has emerged as a key enabler of efficient WCM. The use of ERP systems, AI-driven inventory forecasting, and real-time receivables tracking significantly improves decision-making. Tan and Lee (2023) showed that ASEAN firms that adopted digital tools for WCM recorded 15–20% improvement in profitability compared to non-digitized firms.

Strategic Implications

The findings suggest that firms should not adopt a “one-size-fits-all” approach to working capital management. Instead, they must tailor their WCM strategies based on industry norms, firm size, regional conditions, and access to technology. Moreover, profitability is maximized when firms maintain an optimal level of each working capital component, rather than minimizing them indiscriminately. The trade-off between liquidity and profitability must be carefully managed. Firms that are too conservative may tie up resources, while overly aggressive approaches may risk insolvency.

CONCLUSION

This literature review has examined the relationship between working capital management (WCM) and firm profitability by synthesizing findings from various empirical and conceptual studies. The evidence consistently indicates that effective WCM plays a critical role in enhancing a firm’s financial performance. Key components of working capital—such as inventory turnover, accounts receivable, accounts payable, and the cash conversion cycle—have been found to significantly influence profitability indicators like Return on

Assets (ROA), Return on Equity (ROE), and Net Profit Margin.

The review reveals that firms with optimal working capital policies tend to achieve higher profitability. Specifically, reducing the cash conversion cycle and efficiently managing receivables and inventory contribute positively to firm performance. However, aggressive or excessively conservative working capital strategies can both lead to inefficiencies or liquidity risks, depending on the firm's context.

Moreover, the impact of WCM on profitability is not uniform; it varies based on industry characteristics, firm size, regional market conditions, and technological capabilities. Firms operating in emerging markets or small and medium-sized enterprises (SMEs) often face greater challenges in managing working capital effectively. On the other hand, larger firms and those that adopt digital tools tend to experience better outcomes.

In conclusion, working capital management should be treated as a strategic financial function, not merely an operational necessity. Firms are encouraged to implement data-driven and industry-specific WCM practices to maintain an optimal balance between liquidity and profitability. Future research should further explore the role of technological innovations, sustainability, and macroeconomic volatility in shaping effective WCM strategies.

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