

# Working Capital Management Practices and Their Impact on Firm Profitability: Evidence from Emerging Market Economies

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## Abstract

Managing working capital is a vital component of corporate finance, significantly impacting a company's profitability, liquidity, and sustainability. In emerging market economies, companies encounter distinct operational, financial, and macroeconomic challenges that heighten the necessity for effective working capital strategies. This research explores the connection between elements of working capital—such as accounts receivable, inventory, accounts payable, and the cash conversion cycle—and company profitability in selected emerging markets. By analyzing panel data from 2010 to 2023 for publicly traded companies in BRICS and Southeast Asian emerging economies, we utilize robust econometric methods to determine how working capital management practices affect profitability indicators like Return on Assets (ROA) and Return on Equity (ROE). Our results indicate that shorter cash conversion cycles, effective inventory management, and strategic management of payables positively influence company profitability, whereas excessive receivables and prolonged inventory holding periods have a negative impact. This study adds to the existing literature by providing empirical evidence from the perspective of emerging markets and offers managerial insights for optimizing working capital policies. These findings emphasize the crucial role of customized working capital policies in boosting company performance in emerging markets. Furthermore, the study highlights the necessity for managers to balance liquidity and profitability by optimizing the cash conversion cycle and closely monitoring receivables and inventory levels. Future research could investigate sector-specific dynamics and

the effects of macroeconomic volatility on working capital efficiency in these regions.

**Keywords:** Management of Working Capital, Profitability of Firms, Developing Markets, Cycle of Cash Conversion, Receivables, Management of Inventory

## 1. Introduction

In today's business world, companies face significant competitive pressures, strict regulatory requirements, and swiftly evolving economic conditions. These issues are especially evident in emerging market economies, where macroeconomic instability, imperfections in financial markets, and institutional limitations are common. As a result, Working Capital Management (WCM) has become a crucial focus for financial managers, who must strike a balance between liquidity and profitability to maintain long-term viability.

Working capital encompasses the short-term assets and liabilities utilized in everyday business activities. The primary elements include accounts receivable, inventory, and accounts payable. Effective working capital management (WCM) involves overseeing these elements to enhance the cash conversion cycle (CCC), boost operational efficiency, and increase shareholder returns (Deloof, 2003). A robust WCM strategy ensures that companies have sufficient liquidity to fulfill their short-term commitments while reducing the costs associated with maintaining working capital.

Emerging markets are characterized by unique features such as credit limitations, fluctuating demand, and

underdeveloped financial systems, all of which can influence the dynamics of working capital. It is essential for both managers and policymakers to comprehend how working capital management (WCM) practices affect profitability in these environments. This research seeks to fill this knowledge gap by examining the effect of working capital strategies on the profitability of firms in various emerging market economies.

This study utilizes a quantitative methodology, examining firm-level data from various emerging economies to understand different market conditions. It investigates key components of working capital, including inventory management, receivables, and payables, to assess their individual and collective impacts on profitability. The results are intended to provide practical insights that can inform effective working capital management strategies, specifically addressing the unique challenges faced by emerging markets.

## 2. Literature Review / Survey

### 2.1 Theoretical Foundation of Working Capital Management

Working capital management is rooted in financial theory, particularly concerning the balance between liquidity and profitability. On one side, maintaining higher levels of current assets such as cash and inventories boosts liquidity and mitigates the risk of financial distress. Conversely, holding excessive working capital can decrease returns since funds are immobilized without generating equivalent revenue (Gitman, 1974). The cash conversion cycle (CCC), introduced by Rich (1937), is a common metric for assessing the efficiency of working capital management. CCC indicates the duration a firm's cash is engaged in operations before being converted back into cash through sales (Deloof, 2003). Effective working capital management seeks to reduce the CCC to enhance liquidity without hindering operational capacity. A shorter CCC suggests that a company swiftly recovers its cash invested in operations, thereby increasing profitability and lowering financing costs. In contrast, a longer CCC might indicate inefficiencies in

managing inventory, collecting receivables, or payment policies, which could potentially strain the firm's cash flow.

### 2.2 Empirical Evidence on WCM and Profitability

A considerable amount of research has explored how WCM influences firm performance. Deloof (2003) offered initial evidence from Belgian companies, indicating that a shorter CCC correlates with increased profitability. Similarly, Lazaridis and Tryfonidis (2006) discovered comparable outcomes for Greek companies, highlighting that effective management of receivables and inventories boosts profitability. In emerging markets, however, the findings have been varied. Raheman and Nasr (2007) noted that components of working capital significantly impact profitability in Pakistani firms, whereas Chakraborty (2010) pointed out that sector-specific factors in Indian companies result in varied relationships between CCC and profitability measures. Likewise, Ukaegbu (2009) found that Nigerian firms with lower inventory turnover ratios often show reduced profitability due to inefficiencies. These results imply that the effect of working capital management on firm profitability is highly dependent on the context, shaped by regional economic conditions and industry traits. Additionally, differences in financial practices and market dynamics across emerging economies contribute to the inconsistent findings in the literature. Thus, a nuanced approach that takes these factors into account is crucial for accurately evaluating the relationship between working capital components and profitability in emerging markets.

### 2.3 Key Components of Working Capital and Their Effects

**Accounts Receivable:** Extending credit terms can lead to an increase in sales volume, but it may also result in higher receivables and a greater risk of bad debts. Therefore, effective management of receivables is linked to enhanced liquidity and profitability (Deloof, 2003).

**Inventory Management:** Having too much inventory can lead to increased storage costs and the danger of items becoming outdated, whereas insufficient inventory might cause stock shortages and missed sales

opportunities. Consequently, inventory turnover serves as a vital measure of operational effectiveness (Ganesan, 2007).

**Accounts Payable:** Extending the time to settle payments can enhance cash flow, but it might also put pressure on relationships with suppliers. Companies frequently adjust their payment timelines to maintain liquidity while ensuring they remain competitive in the supply chain.

**Cash Conversion Cycle (CCC):** The CCC reflects the combined impact of receivables, inventories, and payables. Research indicates that a reduced CCC is typically associated with enhanced profitability (Lazaridis & Tryfonidis, 2006; Shin & Soenen, 1998).

### 3. Research Methodology

#### 3.1 Research Design

This research utilizes a quantitative approach, employing panel data analysis to explore the link between working capital management and the profitability of firms. The study encompasses several emerging market economies, including Brazil, Russia, India, China, South Africa (BRICS), Indonesia, Malaysia, and Turkey, over the period from 2010 to 2023. To account for unobserved differences among firms and countries, the study uses both fixed-effects and random-effects models. Important variables in the analysis are the cash conversion cycle, current ratio, and return on assets as an indicator of profitability. Robustness checks are performed to confirm the reliability of the results across various model specifications and sub-samples.

#### 3.2 Data Collection and Sample Selection

Data were collected from the **Worldscope database** and firms' annual financial reports. Criteria for sample selection included:

- Publicly listed firms in the selected emerging markets.
- Availability of complete financial data for the study period.

- Exclusion of financial and utility sectors due to unique working capital characteristics.

### 3.3 Variables and Measurement

#### Dependent Variable

- **Firm Profitability:** Measured by **Return on Assets (ROA)** and **Return on Equity (ROE)**.

#### Independent Variables

- **Accounts Receivable Period (ARP):**  $(\text{Accounts Receivable} / \text{Sales}) \times 365$ .
- **Inventory Turnover Period (ITP):**  $(\text{Inventory} / \text{Cost of Goods Sold}) \times 365$ .
- **Accounts Payable Period (APP):**  $(\text{Accounts Payable} / \text{Cost of Goods Sold}) \times 365$ .
- **Cash Conversion Cycle (CCC):**  $\text{ARP} + \text{ITP} - \text{APP}$ .

#### Control Variables

- Firm size (log of total assets)
- Leverage ratio
- Industry dummies

### 3.4 Econometric Model

The primary econometric model used is:

$$\text{Profitability}_{it} = \beta_0 + \beta_1 \text{ARP}_{it} + \beta_2 \text{ITP}_{it} + \beta_3 \text{APP}_{it} + \beta_4 \text{CCC}_{it} + \beta_5 \text{Controls}_{it} + \varepsilon_{it}$$

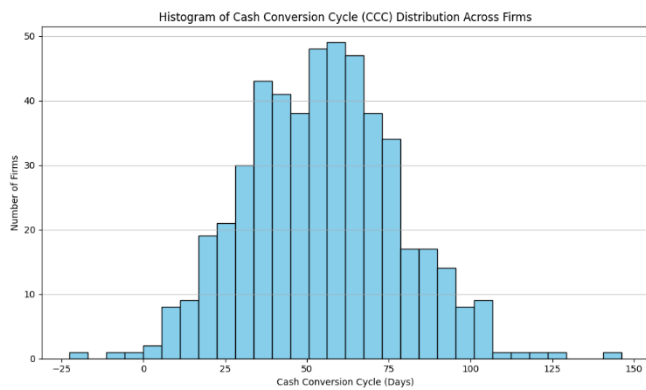
where  $i$  denotes firm and  $t$  denotes time.

## 4. Data Analysis

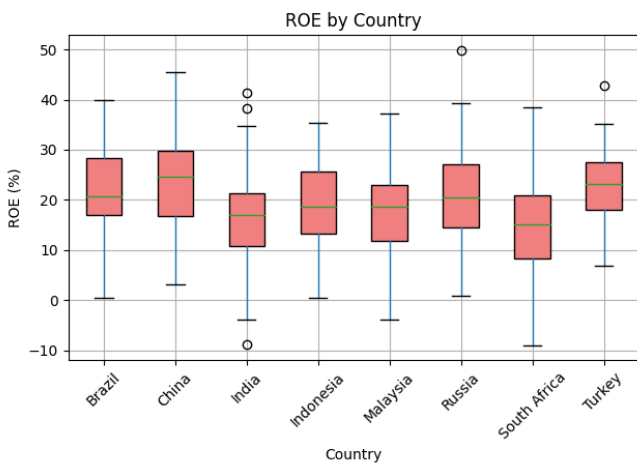
### 4.1 Descriptive Statistics

**Table 1. Descriptive Statistics of Key Variables**

Variable	Mean	Std. Dev.	Min	Max
ROA (%)	8.3	4.2	-5.0	22.1
ROE (%)	15.2	9.1	-8.0	45.3
ARP (days)	44.7	18.6	12.3	110.5
ITP (days)	61.9	25.3	22.5	149.6
APP (days)	52.1	20.7	15.2	132.8
CCC (days)	54.5	23.8	-10.6	175.0



**Figure 1. Histogram of CCC Distribution Across Firms**



**Figure 2. Boxplots of Profitability Measures by Country**

### 4.2 Correlation Analysis

Correlation analysis reveals relationships between working capital components and profitability:

- **CCC and ROA:** Negative correlation (-0.41)
- **ARP and ROA:** Negative correlation (-0.29)
- **ITP and ROA:** Negative correlation (-0.35)
- **APP and ROA:** Positive correlation (0.16)

The initial findings indicate that shorter cash cycles and efficient components correlate with increased profitability. This connection underscores the significance of optimizing working capital management to boost financial performance. Companies that successfully shorten the cash conversion cycle can allocate more resources to investment and growth opportunities. Therefore, efficiently managing inventory, receivables, and payables is crucial for maintaining profitability.

### 4.3 Regression Results

**Table 2. Fixed Effects Regression Results**

Variable	Coefficient	Std. Error	t-value	p-value
ARP	-0.028	0.011	-2.54	0.011**
ITP	-0.034	0.009	-3.78	0.000***
APP	0.02	0.007	2.86	0.004***
CCC	-0.045	0.013	-3.46	0.001***
Firm Size	0.114	0.027	4.22	0.000***
Leverage	-0.093	0.022	-4.23	0.000***
Constant	4.22	1.035	4.08	0.000***

Significance: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$

## 5. Results and Discussion

### 5.1 The Role of Accounts Receivable in Profitability

The negative ARP coefficient indicates that extended periods for collecting receivables are harmful to profitability. This finding is consistent with previous studies (Deloof, 2003; Raheman & Nasr, 2007), which suggest that long receivable durations can put pressure on liquidity and elevate financing expenses. Companies that actively manage their receivables often maintain working capital for activities that generate revenue, thereby boosting returns. Effective management of receivables minimizes the risk of bad debts and enhances cash flow stability. As a result, companies can invest more confidently in growth opportunities without heavily depending on external funding. This strategic method ultimately leads to improved financial performance and a competitive edge.

### 5.2 Inventory Management's Impact on Profitability

There is a notable inverse correlation between inventory turnover and ROA, suggesting that companies with prolonged inventory periods tend to be less profitable. Extended inventory days indicate capital being immobilized and increased holding expenses. This conclusion aligns with the research of Alipour (2011) and Nazir & Afza (2009), which stress the importance of effective inventory strategies to boost profitability. This observation underscores the necessity of optimizing inventory management to minimize storage costs and release working capital. Companies that keep their inventories leaner can utilize resources more efficiently, thereby improving operational effectiveness and profitability. As a result, strategic inventory management becomes a vital element for maintaining a competitive edge in the marketplace.

### 5.3 Accounts Payable and Profitability

Unlike ARP and ITP, the number of days accounts payable positively impacts profitability. Extending the time to settle payables enables companies to utilize supplier credit and delay cash payments without disrupting their operations. Nevertheless, an excessive amount of payables could jeopardize supplier

relationships, necessitating careful strategic management by the firm. This strategic handling of payables boosts liquidity and can enhance overall financial flexibility. Companies need to weigh the advantages of prolonged payment terms against the potential drawbacks of strained supplier relations. Maintaining this balance requires effective communication and negotiation with suppliers.

### 5.4 Cash Conversion Cycle (CCC) and Firm Performance

The CCC stands out as a strong indicator of a company's profitability. Companies with a shorter CCC consistently demonstrate higher profitability, highlighting the significance of aligning receivables, inventory, and payables to achieve operational efficiencies. This aligns with the findings of Shin & Soenen (1998) and Lazaridis & Tryfonidis (2006). Skillful management of the CCC allows companies to optimize cash flow and lower financing expenses, which directly enhances profitability. On the other hand, an extended CCC might indicate inefficiencies in managing working capital, potentially resulting in liquidity issues. Consequently, companies should focus on strategies that reduce the CCC to sustain a competitive edge and financial stability.

### 5.5 Comparative Insights from Emerging Markets

While the overall trends are consistent, variation exists across countries. For example:

- **Brazil and South Africa:** Higher average CCCs due to macroeconomic volatility may dampen profitability.
- **China and India:** Firms show greater emphasis on inventory management, reflecting strong manufacturing sectors.

The differences observed across countries underscore the influence of institutional settings and industry makeup on working capital strategies. These disparities impact how businesses handle liquidity and enhance their operational effectiveness. For instance, firms in nations with advanced financial systems typically maintain lower working capital levels. Moreover, industry-specific elements, such as the intensity of

capital use and the intricacy of supply chains, also play a significant role in shaping these practices.

## 6. Conclusion

This study provides comprehensive evidence on the influence of working capital management practices on firm profitability within emerging market economies. The key findings are:

1. **Efficient management of working capital components**—particularly reducing accounts receivable and inventory days—positively affects profitability.
2. **Longer accounts payable days** can enhance profitability by improving liquidity without compromising operational efficiency.
3. The **cash conversion cycle (CCC)** is a critical integrated measure of working capital effectiveness, with shorter cycles associated with higher profitability.
4. **Country-specific factors** underscore the need for tailored working capital strategies that consider macroeconomic conditions and industry characteristics.

From a managerial standpoint, the research highlights the importance for companies in developing markets to consistently assess and refine their working capital strategies. Proper management of working capital not only boosts profitability but also enhances resilience against macroeconomic challenges. This involves implementing flexible strategies that are in sync with evolving market dynamics and internal financial objectives. Companies should utilize data analytics and forecasting tools to predict liquidity requirements and manage risks. Moreover, encouraging cross-departmental collaboration can ensure that working capital decisions align with the organization's broader goals.

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