

# Cash Flow, Working Capital Management and Firm Performance - A Cross-sectoral Study in an Emerging Market Context

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This study investigates the impact of operating cash flow and working capital management on firm performance, with a particular focus on how these relationships are moderated by industry characteristics in an emerging market context. Using a dataset of 1,480 firm-year observations from 185 Vietnamese enterprises between 2016 and 2023, the analysis employs panel data regression with feasible generalized least squares estimation. The results reveal that operating cash flow and accounts payable turnover positively influence return on assets, whereas accounts receivable turnover has a negative effect. Inventory turnover is not statistically significant. Notably, the magnitude and direction of these effects vary across sectors: the food and beverage and construction and installation industries demonstrate distinct financial dynamics, underscoring the moderating role of industry-specific operational structures. Unlike prior studies that typically focus on single-industry samples or neglect contextual variation, this research provides novel empirical evidence on the non-universality of financial performance relationships. The findings contribute to financial management theory and offer practical guidance for tailoring working capital and cash flow strategies to sectoral realities in emerging economies.

**Keywords:** operating cash flow, working capital management, firm performance, emerging markets, Vietnam

In an increasingly dynamic business environment, understanding the financial drivers of firm performance remains a central concern in both corporate finance and strategic management. Among these drivers, operating cash flow (OCF) and working capital management (WCM) have received extensive attention in the literature due to their direct impact on a firm's liquidity, solvency, and profitability.

OCF reflects a firm's internal capacity to generate sustainable liquidity from core operations, whereas WCM—measured through metrics such as accounts receivable turnover, inventory turnover, and accounts payable turnover—captures a firm's efficiency in managing short-term assets and liabilities. A substantial

body of research has emphasized that efficient WCM can enhance profitability and create financial resilience. For instance, Deloof (2003) found that shorter cash conversion cycles (CCC) positively influence performance. Similarly, Lazaridis and Tryfonidis (2006) identified significant relationships between WCM components and profitability in Greece, whereas Gill et al. (2010) highlighted the importance of cash flow in assessing firm value. In emerging markets, Mathuva (2010), Akoto et al. (2013), and Zariyawati et al. (2010) provided additional evidence supporting the performance implications of working capital strategies.

However, the majority of prior studies have focused either on developed economies or on single-sector

analyses, often neglecting the heterogeneity of financial behavior across industries. This oversight is particularly relevant in emerging markets, where sectoral differences in cash flow cycles, credit access, and operating structures can significantly alter the financial performance relationship.

Vietnam, as a fast-growing emerging economy, offers a unique empirical setting to revisit this relationship. The business environment is dominated by small and medium-sized enterprises (SMEs) that frequently encounter limited access to credit, high working capital volatility, and inconsistent financial transparency. Moreover, industries in Vietnam operate under structurally divergent cash flow regimes: the food and beverage (F&B) sector benefits from relatively stable inflows and fast-moving inventories, whereas the construction and installation sector is characterized by long project cycles, delayed payments, and irregular cash conversion. These differences necessitate a comparative analysis of how WCM and OCF influence firm performance across industries.

Although several studies in Vietnam have explored working capital or firm performance in isolation, there is limited empirical work examining the joint effects of OCF and working capital efficiency on firm performance—especially through a cross-sectoral lens. This gap becomes more significant when considering industry-specific financial frictions, such as credit constraints, seasonal demand, or project-based revenue recognition.

Accordingly, this study contributes to the literature by jointly examining operating cash flow and working capital efficiency within a cross-sectoral framework in an emerging market context, explicitly accounting for sectoral heterogeneity in financial constraints and operating characteristics.

This study offers several notable contributions to the literature. First, it provides an integrated assessment of OCF and working capital efficiency as concurrent drivers of firm performance, thereby extending prior research that has typically treated these financial dimensions in isolation. Second, by conducting a comparative analysis of the F&B and construction sectors—two industries with markedly different operating structures and cash conversion mechanisms—the study highlights the moderating role of industry characteristics in shaping financial performance relationships. Third, the paper contributes new empirical evidence from Vietnam, an emerging

economy where institutional constraints and liquidity management challenges differ substantially from those documented in advanced markets. Collectively, these contributions broaden the current understanding of short-term financial management and its performance implications in contexts characterized by market imperfections and sectoral heterogeneity.

The joint consideration of OCF and working capital management is particularly salient in emerging markets, where firms frequently rely on internally generated funds and face persistent financing frictions. These two financial elements together determine a firm's liquidity position, operational flexibility, and capacity to withstand economic shocks, rendering them central to performance outcomes. The selection of the F&B and construction sectors is grounded in their distinct cash flow architectures and working capital profiles: F&B firms typically operate with rapid inventory turnover and stable demand patterns, whereas construction firms manage long project cycles, delayed payments, and substantial working capital commitments. These structural differences provide a compelling basis for examining how OCF and working capital efficiency influence firm performance across contrasting industry settings, thereby reinforcing the relevance of a cross-sectoral empirical approach.

This study seeks to address this gap by examining the impact of OCF and working capital efficiency on firm performance, with an emphasis on how these effects differ between two structurally distinct sectors: F&B and construction. By integrating a sectoral perspective into the financial performance nexus, this research contributes to both theory and practice. The findings aim to inform financial managers, investors, and policymakers seeking to optimize financial strategies within the constraints of Vietnam's evolving economic landscape.

## **Theoretical Background and Hypothesis Development**

In corporate finance theory, OCF is widely regarded as one of the most fundamental internal financial resources, as it captures the firm's true operational capability (Penman & Yehuda, 2009; Dechow et al., 1998). According to the pecking order theory (Myers & Majluf, 1984), firms prefer internal financing—such as OCF—over external financing to reduce financing costs and mitigate

information asymmetry-related risks. Similarly, the resource-based view (RBV; Barney, 1991) argues that firms with reliable internal financial resources—particularly strong OCF—are better positioned to build sustainable competitive advantages through greater flexibility in investment decisions, liquidity management, and strategic adaptation. Hence, higher levels of OCF are theoretically expected to improve operational efficiency and long-term profitability.

The relationship between OCF and firm performance has garnered significant attention from both domestic and international scholars. Multiple empirical studies across diverse markets have consistently shown that OCF positively influences performance metrics such as return on assets (ROA) and return on equity (ROE). For instance, Charitou et al. (2010), analyzing 120 firms listed on the Cyprus Stock Exchange from 1998 to 2007, found that OCF had a positive and statistically significant effect on financial performance. Similarly, Gill et al. (2010) confirmed the critical role of OCF in enhancing ROA in their study of 88 U.S. manufacturing firms from 2005 to 2007.

Akoto et al. (2013), investigating 13 listed manufacturing firms in Ghana (2005–2009), also reported a positive association between effective OCF management and ROA. Furthermore, Moussa (2018), examining 56 non-financial firms listed in Egypt (2012–2016), identified OCF as a stronger predictor of performance than traditional accounting measures such as net income or total assets.

Nevertheless, some studies have reported inconsistent findings. For example, Dechow et al. (1998) argued that in certain industries, OCF may be a less effective indicator of short-term performance than accounting earnings. Keerio et al. (2021), in a study of the Pakistani cement industry, found no statistically significant relationship between OCF and ROA. Similarly, Talha et al. (2010) reported a negative impact of cash turnover on profitability among private hospitals in India. These conflicting results suggest that the effect of OCF on firm performance may depend on industry-specific factors, capital structure, and broader macroeconomic conditions.

In summary, while the relationship between OCF and firm performance has been extensively studied, the empirical findings remain inconclusive. Building on established theoretical frameworks and the predominantly supportive empirical evidence, this study proposes the following hypothesis:

H1: Operating cash flow has a positive impact on firm performance.

WCM is conceptually grounded in three foundational theories in corporate finance. First, the liquidity–profitability trade-off theory posits that firms must balance the need to maintain adequate liquidity to meet short-term obligations to maximize profitability (Smith, 1980). Excessive investment in working capital enhances liquidity but may reduce returns, whereas insufficient working capital may increase financial risk and disrupt operations. Second, the operating cycle theory explains that the speed at which firms convert resources tied up in receivables, inventory, and payables into cash determines the efficiency of short-term financial management. A shorter operating cycle improves cash availability, reduces financing needs, and enhances operational flexibility (Gitman & Zutter, 2012). Third, the cash conversion cycle (CCC) theory provides an integrated view of how receivables, inventory, and payables jointly influence liquidity and performance. According to Richards and Laughlin (1980), a shorter CCC strengthens liquidity and reduces dependence on external financing, whereas a longer cycle can erode profitability and increase financing pressure. Building on these theoretical foundations, the following subsections outline how the key components of working capital—accounts receivable, inventory, and accounts payable—are expected to influence firm performance.

In short-term financial management, the accounts receivable turnover ratio (ARTO) is a key indicator of a firm's efficiency in collecting outstanding payments from customers within a given business cycle. From the standpoint of effective WCM, faster collection enhances liquidity, reduces cash flow volatility, and enables firms to reinvest funds more quickly into profitable operations—thereby improving overall performance (Deloof, 2003). Conversely, if a firm extends excessive trade credit to boost short-term sales, the resulting delay in cash inflows may increase the risk of bad debts and erode financial performance (Lazaridis & Tryfonidis, 2006). Therefore, managing accounts receivable effectively is critical to balancing revenue growth with financial risk control.

A substantial body of empirical research has investigated the relationship between accounts receivable and firm performance, with the majority of studies indicating a negative association. Deloof

(2003), in a study of 1,009 Belgian firms from 1992 to 1996, found that longer accounts receivable periods were linked to lower ROA, suggesting that excessive credit extension may adversely affect profitability. Similarly, Lazaridis and Tryfonidis (2006), analyzing data from 131 listed firms in Greece, reported a negative relationship between RTR and net profit, underscoring the importance of conservative trade credit policies. Mathuva (2010), examining 30 Kenyan firms, observed that shorter receivables periods were associated with higher ROA. Garcia-Teruel and Martinez-Solano (2007), focusing on Spanish SMEs, reached similar conclusions.

In the context of emerging markets, Gill et al. (2010) and Zariyawati et al. (2010) both provided empirical evidence that slower receivables collection may undermine firm profitability—particularly in industries characterized by rapid inventory turnover or low profit margins. However, other studies have produced mixed results. For example, Raheman and Nasr (2007), using a sample of 94 Pakistani firms, found no statistically significant relationship between accounts receivable and firm performance. These discrepancies suggest that the effect of RTR on profitability may vary depending on industry-specific characteristics and firms' credit policies.

Drawing upon the theoretical rationale and empirical evidence presented above, this study proposes the following hypothesis:

H2: Accounts receivable turnover has a negative impact on firm performance.

The inventory turnover ratio (INVT) reflects the efficiency with which a firm manages, circulates, and sells its inventory. According to inventory optimization theory and the opportunity cost theory, maintaining excessively high inventory levels can increase storage costs and tie up cash flow, leading to opportunity costs. On the other hand, insufficient inventory levels may result in lost sales, production disruptions, or decreased customer satisfaction (Kesavan et al., 2010). Therefore, efficient inventory turnover is expected to contribute positively to financial performance.

A growing body of empirical research has identified a significant relationship between inventory turnover and firm performance. Lazaridis and Tryfonidis (2006), using data from 131 firms in Greece, found a positive

association between higher inventory turnover and profitability. Similarly, Mathuva (2010), employing a sample of 30 listed firms in Kenya, demonstrated that faster inventory turnover improved ROA by reducing holding costs and increasing operational efficiency. Agha (2014), analyzing 35 manufacturing firms in Pakistan, also reported a statistically significant positive effect of inventory turnover on both ROA and ROE.

However, other studies have observed inverse effects. Raheman and Nasr (2007), analyzing data from 94 Pakistani firms during 1999–2004, reported that high inventory turnover was negatively associated with profitability, implying that firms may experience declining margins if products are sold too quickly at lower markups. These findings suggest that while the effect of inventory turnover is real, its direction may depend on industry characteristics and operational strategies.

Some studies, however, have found no significant relationship between inventory turnover and financial performance. For instance, Samiloglu and Demirgunes (2008), studying 140 manufacturing firms in Turkey from 1998 to 2007, reported that inventory turnover had no statistically significant effect on profitability, whereas receivables and payables showed strong associations. Similarly, Vural et al. (2012), using a sample of 75 non-financial Turkish firms, found that inventory turnover was the least stable explanatory variable in their ROA model, failing to achieve statistical significance in most regression tests. These results indicate that the impact of inventory turnover may be obscured in industries with long production cycles or limited seasonal regularity.

Overall, the majority of empirical evidence—particularly in emerging markets—suggests that inventory turnover has a significant impact on financial performance, whether positive or negative (Lazaridis & Tryfonidis, 2006; Agha, 2014; Mathuva, 2010; Raheman & Nasr, 2007). Building upon the theoretical rationale and the prevailing empirical findings, this study proposes the following hypothesis:

H3: Inventory turnover has an impact on firm performance.

The accounts payable turnover ratio (APTO) indicates how quickly a firm settles its short-term obligations to suppliers. From a WCM

perspective, strategically extending payment terms can help preserve internal cash reserves, enhance liquidity, and enable firms to invest in higher-yield opportunities (Deloof, 2003). This approach aligns with the opportunity cost theory in corporate finance, which posits that delayed payments—when no penalties apply—can function as a cost-free short-term financing source (Lazaridis & Tryfonidis, 2006). However, excessively postponing payments may damage a firm's credit reputation, strain supplier relationships, and forfeit early payment discounts—ultimately undermining operational efficiency.

Numerous empirical studies have investigated the relationship between PTR and firm performance, with most reporting a positive association. Deloof (2003), analyzing 1,009 Belgian firms, found that longer payment cycles were associated with higher ROA. Lazaridis and Tryfonidis (2006) observed similar patterns among listed firms in Greece, suggesting that prudent management of payment cycles can enhance profitability. In Kenya, Mathuva (2010) showed that an increase in days payable outstanding was positively associated with ROA, highlighting the strategic role of trade credit for firms with limited access to external financing. Similarly, Zariyawati et al. (2010) reported that delayed payments improved performance by reducing financial pressure, particularly in Malaysian SME.

In contrast, Altaf and Shah (2017) found that WCM had a significant influence on firm performance among Indian companies. Specifically, they reported a negative relationship between accounts payable turnover and firm performance, indicating that excessively long payment periods may do more harm than good. This negative effect was especially evident among firms facing high financial constraints, underscoring the need to balance liquidity preservation with maintaining supplier trust and reputation.

Drawing upon the theoretical rationale and mixed empirical findings discussed above, this study proposes the following hypothesis:

H4: Accounts payable turnover has a positive impact on firm performance.

In corporate finance research, there is growing evidence that financial performance relationships are not universal, but instead may vary across industries,

operational structures, and the specific financial characteristics of each sector (Hill, Hitt, & Hoskissan 1992; Moussa, 2018). This perspective is grounded in contingency theory, which posits that the effectiveness of financial management practices depends on the specific operational context, with industry being a critical moderating factor (Donaldson, 2001).

Although many studies have established a general relationship between WCM and firm performance, recent research has increasingly emphasized the role of industry in moderating this relationship. Jakpar et al. (2017) found that the impact of WCM strategies—whether conservative or aggressive—differed significantly across industries in the Malaysian market. Additionally, Enqvist et al. (2014) argued that such differences may stem from industry-specific business cycles and operational characteristics, where working capital needs can vary depending on inventory holding periods, collection cycles, or demand volatility.

These findings collectively suggest that the relationship between cash flow, WCM, and firm performance is not one-size-fits-all, but is instead moderated by sectoral factors such as operating cycle length, asset intensity, and supply chain complexity (Chopra & Meindl, 2019). Based on this theoretical rationale and emerging empirical evidence, the study proposes the following hypothesis:

H5: The impact of cash flow and working capital management on firm performance differs across industries.

## Data and Methodology

### Data Source

This study utilizes a balanced panel dataset comprising 1,480 firm-year observations from two major sectors in Vietnam: the F&B industry (53 firms) and the construction and installation industry (132 firms), covering the period from 2016 to 2023. The sample was carefully constructed to ensure industry diversity while maintaining comparability in terms of firm size and market presence.

All data were sourced from audited financial statements, officially collected and provided by Vietstock, a reputable data provider widely used in academic and professional research in Vietnam. The use of audited reports ensures a high degree of

reliability, consistency, and adherence to standardized accounting principles across firms and over time.

To ensure the reliability and consistency of the dataset, a structured data cleaning and screening procedure was implemented prior to econometric analysis. First, firm-year observations with missing values in any key variable (CFO, ARTO, INVT, APTO, ROA, SIZE, LEV, or GROWTH) were removed. Second, the dataset was examined to identify implausible or economically unreasonable observations; those with negative total assets, negative inventory balances, or turnover ratios falling outside feasible operational ranges were eliminated. Third, to mitigate the influence of extreme values and reduce potential distortions in regression estimates, all continuous variables were winsorized at the 1st and 99th percentiles. After applying these procedures, the final dataset remained a fully balanced panel with complete and consistent observations across the entire 2016–2023 period.

The selected period (2016–2023) captures a full business cycle, including both pre-pandemic and post-pandemic dynamics, allowing the study to reflect the real financial behavior and performance patterns of Vietnamese enterprises under varying macroeconomic conditions.

### Methodology

To examine the relationship among OCF, WCM, and firm performance, this study employs a panel data regression model using a linear specification. The baseline model is expressed as follows:

$$\begin{aligned} ROA_{it} = & \beta_0 + \beta_1 * CFO_{it} + \beta_2 * ARTO_{it} + \beta_3 * INVT_{it} \\ & + \beta_4 * APTO_{it} + \beta_5 * IND_{it} + \beta_6 * (CFO \times IND)_{it} + \\ & \beta_7 * (ARTO \times IND)_{it} + \beta_8 * (INVT \times IND)_{it} + \beta_9 * \\ & (APTO \times IND)_{it} + \beta_{10} * SIZE_{it} + \beta_{11} * LEV_{it} \\ & + \beta_{12} * GROWTH_{it} + \varepsilon_{it} \end{aligned}$$

In this model, ROA serves as the dependent variable, capturing firm performance. The main explanatory variables include CFO (OCF), which reflects the firm's internal cash-generating capacity; ARTO, indicating the efficiency of receivables management; INVT (inventory turnover), representing inventory management performance; and APTO, which measures how quickly firms settle their payables. The dummy

variable IND distinguishes between sectors, taking a value of 0 for firms in the F&B industry and 1 for those in the construction and installation industry. Interaction terms between IND and the core explanatory variables are included to test the moderating role of industry characteristics in the relationship between financial indicators and performance. Control variables include SIZE, LEV, and GROWTH.

To ensure the appropriate specification for the panel-data model, several diagnostic tests were conducted. First, the Hausman (1978) specification test was applied to compare the fixed effects model (FEM) and the random effects model (REM). The test yielded a chi-square statistic of 47.19 with a p-value of 0.000, strongly rejecting the null hypothesis and confirming that FEM is the more appropriate estimator. Second, the modified Wald test for groupwise heteroskedasticity in the FEM revealed substantial heteroskedasticity across firms ( $\chi^2(186) = 8.2 \times 10^6$ ,  $p = 0.0000$ ). Third, the Wooldridge test for autocorrelation indicated the presence of first-order serial correlation in the panel data. Given these violations of classical assumptions, the generalized least squares (GLS) estimator was employed to correct for heteroskedasticity and autocorrelation, thereby improving the efficiency and consistency of coefficient estimates.

ROA is selected as the sole performance measure because it provides a stable and direct indicator of operational efficiency, capturing how effectively firms utilize their assets to generate profit. In emerging markets such as Vietnam, market-based performance measures (e.g., Tobin's Q or price-based indicators) tend to be highly volatile and may not reliably reflect firm fundamentals. Additionally, ROA allows for consistent comparison between the F&B and construction sectors, which differ substantially in their asset structures.

Control variables are incorporated to account for firm-specific characteristics that may influence performance. Firm size (SIZE) captures potential economies of scale and differences in resource availability. Leverage (LEV) reflects the impact of capital structure and financial risk, as firms with higher debt levels may face greater interest burdens or benefit from tax-shield advantages. Revenue growth (GROWTH) controls for expansion dynamics, since firms experiencing rapid sales growth may exhibit higher profitability independent of working capital policies. Including these variables helps isolate the

true effects of OCF and working capital indicators from underlying firm heterogeneity.

The measurement of all variables used in the regression model is presented in Table 1.

### Empirical Results and Discussion

Table 2 presents the descriptive statistics of the variables used in the empirical model. The results show that several variables, such as OCF, APTO, and ROA, exhibit very large standard deviations, indicating substantial variation across firms in the sample—particularly between two industries with distinct financial cycles. These significant fluctuations

underscore the need for rigorous data cleaning procedures and reliability checks in the model estimation process.

To examine the preliminary relationships among variables, Table 3 presents the Pearson correlation matrix of the main variables. The results indicate that ROA is positively correlated with OCF and firm size, and negatively correlated with accounts receivable and inventory—consistent with the proposed hypotheses. The correlation coefficients among the independent variables range from low to moderate levels, suggesting no serious indication of multicollinearity.

**Table 1.** *Variables Measurement*

Variable name	Measurement
ROA (Return on Assets)	Net income / Total assets
CFO (Operating Cash Flow)	Net cash flow from operating activities / Total assets
ARTO (Accounts Receivable Turnover)	Net revenue / Average accounts receivable
INVT (Inventory Turnover)	Cost of goods sold / Average inventory
APTO (Accounts Payable Turnover)	Cost of goods sold / Average accounts payable
IND (Industry Dummy)	0 = Food & Beverage firms; 1 = Construction & Installation
SIZE (Firm Size)	Natural logarithm of total assets
LEV (Leverage)	Total debt / Total assets
GROWTH (Revenue Growth)	$(\text{Revenue}_t - \text{Revenue}_{t-1}) / \text{Revenue}_{t-1}$

(Source: Author)

**Table 2.** *Descriptive Statistics*

Variable	Table 1. Va	Mean	Std. Dev.	Min	Max
ROA	1480	2.099	8.158	-41.747	36.38
OCF	1480	97313.296	508382.19	-852052.04	3899584.3
ARTO	1480	279.027	720.105	1.024	5650.815
INVT	1480	230.251	469.11	0	3544.329
APTO	1480	331.255	2625.081	0	84619.57
GROWTH	1480	48.625	394.195	-88.869	4464.355
SIZE	1480	13.39	1.593	9.806	17.374
LEV	1480	2.217	3.339	-8.82	19.223

(Source: Author's calculation – Stata output)

Table 4 presents the estimation results from three regression models, with ROA as the dependent variable. Across all models, the coefficients are consistent in both sign and statistical significance, allowing several important conclusions to be drawn regarding the proposed hypotheses. The following discussion is based on the results of the feasible generalized least squares model, which was employed to address issues of heteroskedasticity and autocorrelation detected in the previous estimations.

OCF exhibits a positive and statistically significant impact on firm performance (ROA) across all three models, thereby confirming Hypothesis H1. This result reinforces the empirical validity of earlier studies such as Gill et al. (2010), Akoto et al. (2013), and Moussa (2018), which highlighted the role of stable cash flows in supporting payment obligations, facilitating proactive investment, and reducing reliance on external financing—all of which contribute to improved profitability. Conversely, prior research has also reported mixed findings. For example, Dechow et al. (1998) suggested that OCF may be a less effective predictor of short-term performance compared to accounting earnings in certain industries, whereas Keerio et al. (2021) found no significant relationship between OCF and ROA in the context of the Pakistani cement sector. These inconsistencies may be attributable to variations in market maturity, financial system development, and sector-specific operational dynamics. In the context of Vietnam—a developing

economy where access to external capital remains limited—OCF serves as a vital internal financing mechanism, which may explain its relatively stronger impact on firm performance observed in this study.

ARTO has a negative and statistically significant impact on firm performance (ROA), which is consistent with Hypothesis H2. This result aligns with empirical findings from Deloof (2003) and Raheman and Nasr (2007), who argued that the longer receivables remain outstanding, the less efficient the use of capital becomes—ultimately diminishing firm profitability. Conversely, Mathuva (2010) found a positive relationship between accounts receivable and ROA in a sample of Kenyan firms, suggesting that, in certain cases, trade credit policies may be strategically employed to stimulate revenue growth. This discrepancy can be attributed to contextual factors. In Vietnam—particularly within the F&B sector—extended collection periods often indicate weak bargaining power or inefficient receivables management, rather than a deliberate commercial strategy. Therefore, the negative coefficient for ARTO observed in this study is justified, especially in an emerging market characterized by an underdeveloped credit infrastructure.

Inventory turnover (INVT) does not exhibit a statistically significant relationship with ROA, contrary to Hypothesis H3, which posits that this indicator affects a firm's financial performance. This finding is consistent with prior studies such as Raheman

**Table 3.** *Matrix of Correlations*

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) ROA	1.000							
(2) OCF	0.265	1.000						
(3) ARTO	-0.322	-0.061	1.000					
(4) INVT	-0.191	-0.069	0.501	1.000				
(5) APTO	-0.080	-0.019	0.384	0.342	1.000			
(6) GROWTH	-0.007	-0.014	-0.018	-0.051	-0.015	1.000		
(7) SIZE	0.246	0.362	-0.159	-0.025	-0.041	-0.046	1.000	
(8) LEV	-0.091	-0.066	-0.049	0.045	-0.042	-0.040	0.122	1.000

(Source: Author's calculation – Stata output)

and Nasr (2007) and Dechow et al. (1998), which also did not establish a significant association between inventory turnover and profitability—particularly in sectors characterized by long production cycles or low inventory volatility. In contrast to these results,

Lazaridis and Tryfonidis (2006) and Agha (2014) reported a positive relationship between inventory turnover and ROA in markets such as Greece and Pakistan, where efficient inventory management is a critical driver of operational effectiveness. In

**Table 4.** *Regression Results*

	(1) ROA	(2) ROA	(3) ROA
OCF	0.00000293*** (0.000000601)	0.00000172** (0.000000826)	0.00000352*** (0.000000226)
ARTO	-0.0126*** (0.00124)	-0.0119*** (0.00137)	-0.0133*** (0.00147)
INVT	-0.00327 (0.00275)	-0.00315 (0.00323)	-0.00143 (0.00120)
APTO	0.0121*** (0.00148)	0.0116*** (0.00158)	0.0124*** (0.00172)
GROWTH	0.0000492 (0.000478)	0.000295 (0.000513)	-0.0000574 (0.0000875)
SIZE	0.679*** (0.209)	0.331 (0.453)	0.485*** (0.0534)
LEV	-0.233*** (0.0562)	-0.206*** (0.0603)	-0.199*** (0.0194)
IND * OCF	-0.00000252*** (0.000000914)	-0.00000130 (0.00000109)	-0.00000331*** (0.000000317)
IND * ARTO	0.0116*** (0.00128)	0.0115*** (0.00141)	0.0125*** (0.00148)
IND * INVT	0.00225 (0.00278)	0.00222 (0.00328)	0.000851 (0.00121)
IND * APTO	-0.0121*** (0.00149)	-0.0116*** (0.00159)	-0.0124*** (0.00172)
Constant	-5.994** (2.818)	-1.482 (6.074)	-3.926*** (0.687)
Observations	1480	1480	1480
Mean of Dep. Variable			

Standard errors in parentheses  
 \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$   
 (Source: Author's calculation)

the context of the present study, the absence of a statistically significant effect may be attributed to structural differences between the two industries examined. The F&B sector typically implements optimized inventory systems with high turnover, while the construction and installation sector maintains large quantities of raw materials with low turnover frequency. As a result, the IVNT may not adequately reflect asset utilization across the full sample, thereby diminishing its explanatory power with respect to ROA.

APTO has a positive and statistically significant impact on ROA, in line with Hypothesis H4. This finding implies that firms capable of reasonably delaying payments to suppliers can leverage short-term, interest-free capital to improve liquidity and enhance operational efficiency. The result aligns with prior studies such as Deloof (2003), Mathuva (2010), and Zariyawati et al. (2010), which emphasized the beneficial role of trade credit in supporting firm performance—especially in environments where access to traditional financing is constrained. Conversely, Altaf and Shah (2017) cautioned that excessively extended payment periods may harm supplier relationships and weaken a firm's creditworthiness, ultimately reducing financial performance. In this study, the positive coefficient for APTO suggests that most firms in the sample—particularly those in the F&B sector—have managed trade credit strategically, utilizing it as a form of short-term financing without adversely affecting supply chain continuity.

Regarding the industry-specific moderating effects, the results indicate that the positive impact of operating cash flow on firm performance is weaker in the construction and installation sector. This may be attributed to the unstable and project-dependent nature of cash flows in this industry, which makes it more difficult to translate cash inflows into timely profitability.

Additionally, the negative impact of accounts receivable on ROA is less pronounced in the construction sector, consistent with the expectation that long receivables collection periods are a structural characteristic of the industry rather than a sign of poor financial management.

The analysis also finds no statistically significant difference in the relationship between inventory turnover and ROA across the two sectors, suggesting that inventory is not a critical determinant of firm

performance in either the construction or the F&B industries.

Finally, the positive effect of accounts payable turnover on ROA is also weaker in the construction sector, possibly due to tighter payment regulations and more rigorous project approval processes, which limit the financial benefits typically associated with extended payment terms—benefits that are more observable in the F&B sector.

## Conclusion and Implications

This study investigates the relationship among OCF, WCM, and firm performance, while also assessing the moderating role of industry characteristics in an emerging market—Vietnam. The empirical findings reveal that OCF and accounts payable turnover exert a positive influence on ROA, whereas accounts receivable turnover has a negative effect. In contrast, inventory turnover does not exhibit a statistically significant association with performance.

Importantly, the effects of these financial indicators are not uniform across industries: the positive impacts of cash flow and payables are weaker in the construction and installation sector, and the negative influence of receivables is also less pronounced in this industry.

Beyond the core findings, this study contributes to the literature by offering deeper insights into how cash flow and working capital dynamics influence firm performance—particularly in financially constrained environments and across sectors with differing operational cycles. Moreover, it emphasizes the critical role of contextual factors—especially industry structure—as determinants of financial policy effectiveness.

## Theoretical Implications

This study provides several important theoretical contributions to the literature on WCM. It extends existing knowledge by demonstrating the asymmetric effects of different WCM components and by highlighting the moderating role of industry characteristics—an area that has received limited attention in prior research. The evidence that the effectiveness of cash flow and payables differs between the F&B and construction sectors underscores the relevance of operational cycles and sector-specific liquidity structures in shaping financial outcomes.

### **Managerial Implications**

The results also yield actionable implications for financial managers. Firms should prioritize initiatives that stabilize and enhance internal cash generation, particularly in sectors such as construction, where cash inflows are irregular. The negative relationship between receivables turnover and performance indicates the need for stricter receivable management, shorter collection periods, and customer risk segmentation—especially for construction firms. For F&B firms, maintaining disciplined receivables practices is essential in protecting margins.

The positive impact of accounts payable turnover suggests that firms can strategically leverage trade credit as a low-cost financing source. However, construction firms must balance liquidity benefits with the risk of damaging supplier relationships. Finally, the lack of significance for inventory turnover implies that inventory strategies should be aligned with broader cash-flow and credit policies rather than being relied upon as a direct driver of performance.

### **Policy Implications**

From a policy perspective, the findings emphasize the need for sector-specific financial regulations and support programs. For industries with long cash conversion cycles, such as construction, flexible credit instruments—such as expanded lines of credit or project-based financing—could ease short-term liquidity constraints. Policies that promote financial transparency and the adoption of cash-flow monitoring tools may also help reduce information asymmetry. For the F&B sector, supply-chain financing mechanisms could enhance liquidity and strengthen operational resilience.

Taken together, the study bridges theoretical insights with actionable guidance for managers, investors, and policymakers operating in emerging market contexts.

### **Data Availability Statement**

The data that support the findings of this study are derived from publicly available financial statements of Vietnamese listed companies and stock exchange disclosures. The dataset is available from the corresponding author upon reasonable request.

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### **Disclosure Statement**

The authors declare no competing financial or non-financial interests.

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