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RESEARCH ARTICLE

Profitability Beyond Size: How Working Capital Efficiency Creates Value Across Industries

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Abstract
This study investigates the effect of working capital efficiency on firm profitability across multiple sectors in Indonesia. Panel data covering 1,012 firms listed on the Indonesia Stock Exchange over the period 2014–2024 yielded 5,273 firm-year observations. Working capital efficiency was measured using three proxies: winsorized Cash Conversion Cycle, Inventory Turnover, and Accounts Receivable Turnover, while profitability was proxied by Profit Margin as the primary dependent variable. Multiple linear regression was estimated while controlling for firm size (Ln Market Cap) and industry sector using the open-source Jamovi software version 2.x. Our findings indicate that the Cash Conversion Cycle has a statistically significant negative effect on Profit Margin ($b = -0.0067$, $p < 0.001$). Inventory Turnover also exhibits a significant negative effect ($b = -0.0116$, $p = 0.025$), whereas Accounts Receivable Turnover demonstrates a positive effect ($b = 0.0267$, $p = 0.032$). Firm size emerges as the strongest predictor of profitability ($b = 4.6579$, $p < 0.001$). We observe substantial sectoral heterogeneity, with the property, transportation, and utility sectors showing significantly lower profit margins compared to the financial sector. These findings confirm the importance of efficient working capital management in enhancing financial performance, with mechanisms varying across industry sectors. This research contributes to the financial management literature by providing large-scale empirical evidence from an emerging market in Southeast Asia, while documenting cross-sectoral heterogeneity that explains inconsistent findings in prior research.

Keywords
Working Capital Efficiency; Cash Conversion Cycle; Profit Margin; Indonesia Stock Exchange; Cross-Sector Analysis.

1 | INTRODUCTION

Working capital management directly shapes a firm's ability to maintain liquidity while sustaining profitability. Excessive working capital locks resources in low-return current assets, reducing opportunities for more productive investment. On the other hand, too little working capital can disrupt daily operations, delay supplier payments, and increase financial vulnerability. These challenges are especially pronounced in emerging markets such as Indonesia, where external financing is costly and credit access for small and medium-sized enterprises remains constrained. Firms that carefully balance cash flows, inventory, and receivables can continue operations smoothly without sacrificing growth potential. A measured approach to managing working capital allows companies to navigate liquidity pressures while using resources efficiently and maintaining trust with business partners. By aligning short-term financial decisions with operational needs, firms can strengthen resilience and ensure that their strategies support both immediate performance and long-term stability.

Purba *et al.* (2025) introduced the Cash Conversion Cycle as a sharper way to assess working capital efficiency by connecting inventory turnover, receivables collection, and supplier payment timing. Rather than viewing these activities separately, the measure shows how long company funds remain tied up before returning as cash. A shorter cycle usually reflects stronger discipline in managing operations, since firms can recover cash faster and reduce dependence on costly external financing. However, shortening the cycle should not be pursued blindly, as overly aggressive collection policies or excessive delays in paying suppliers may damage customer trust and supplier relationships. Dalci *et al.* (2019).using data from 1,009 Belgian firms, found that longer receivables periods, inventory periods, and payables periods were linked to lower gross operating income. This evidence suggests that working capital timing is not merely an accounting issue, but a managerial decision that affects profitability, liquidity, and business stability. Effective firms must balance speed, flexibility, and relationship quality.

Empirical evidence on the impact of the Cash Conversion Cycle on profitability shows mixed patterns. Shaik (2021), analyzing Saudi Arabian manufacturing firms, found that longer CCC positively influenced return on assets, return on equity, and Tobin's Q. Similarly, Bhutto *et al.* (2015) observed a positive association between CCC and ROA across multiple industries in Pakistan. In Indonesia, Rizki *et al.* (2014) reported that aggressive working capital strategies could boost profitability in the property sector. These findings challenge the widespread belief that a shorter CCC universally improves financial performance, suggesting that the relationship is more nuanced. Dalci *et al.* (2019) provided partial clarity by demonstrating that firm size moderates this link: larger firms can benefit from extended CCC through stronger supplier credit arrangements, while smaller firms rely on shorter CCC to maintain liquidity and reduce exposure to financial strain. These variations indicate that managerial decisions around working capital must consider firm-specific characteristics and operational realities rather than relying on one-size-fits-all strategies.

Indonesia provides a distinct environment for examining working capital management due to the rapid expansion and diversification of its stock market. The Indonesia Stock Exchange has grown from roughly 500 listed companies in the early 2010s to over 900 by 2024, reflecting not only an increase in market participation but also broader industrial representation, including mining, manufacturing, property, information technology, and telecommunications. Each sector faces unique operational and financial challenges, which shape cash flow patterns, inventory requirements, and receivables management. Mandalaputri, Fettry, and Felisia (2021) argue that ignoring these differences can produce misleading results, as single-sector analyses often fail to account for structural variations in working capital demands. For instance, capital-intensive sectors like mining may sustain longer cash conversion cycles without harming operations, whereas fast-paced industries such as information technology require rapid turnover to maintain liquidity. Examining these distinctions allows for a more precise understanding of how sector-specific practices influence the efficiency of working capital and its link to firm performance, highlighting the need for nuanced managerial strategies.

Prior research in Indonesia on working capital and profitability often relies on narrowly defined samples, limiting generalizability. Purnamasari *et al.* (2021) focused on 17 food and beverage companies, Yusuf and Hariani (2024) analyzed 70 observations from a single subsector, Rahayu et al. (2023) studied 8 pharmaceutical firms, and Eryatna et al. (2021) used 21 consumer goods companies. While these studies provide initial insights, their restricted scope cannot capture variations across the broader market, where industries differ in operational demands, liquidity pressures, and credit practices. This study addresses these gaps by examining 1,012 firms spanning 11 sectors over 11 years (2014–2024), producing thousands of firm-year observations. Such a dataset allows more accurate estimation of working capital effects and comparison across industries with varying financial behaviors. Additionally, the application of Jamovi introduces methodological refinement, offering a transparent and replicable tool for panel data analysis, which has rarely been employed in Indonesian financial management research, particularly for cross-sector evaluations on the stock exchange.

This study pursues four primary objectives. First, we analyze the effect of Cash Conversion Cycle on Profit Margin across sectors in the Indonesia Stock Exchange. Second, we examine the effect of Inventory Turnover on profitability. Third, we investigate the effect of Accounts Receivable Turnover on profitability. Fourth, we compare these relationships across 11 industrial sectors while controlling for firm size. Our contributions span three dimensions: theoretical

contribution to working capital management literature in emerging markets, methodological contribution through integration of Jamovi into corporate finance research, and practical contribution to financial managers seeking to calibrate working capital policy according to sectoral characteristics.

2 | BACKGROUND THEORY

2.1 Working Capital Theory and Cash Conversion Cycle

Working capital management theory emphasizes balancing profitability and liquidity. Gitman (2015) identifies three core areas of financial management: capital budgeting (long-term asset allocation), capital structure (debt–equity mix), and working capital management (short-term financing). Decisions regarding current assets and current liabilities directly influence operational efficiency and cash flows. Purba *et al.* (2025) introduced the Cash Conversion Cycle (CCC) as a more sensitive measure than static liquidity ratios. CCC is calculated as Days Sales in Inventory (DSI) plus Days Sales Outstanding (DSO) minus Days Payable Outstanding (DPO). DSI measures the average number of days inventory is held before sale, DSO measures the average time to convert receivables into cash, and DPO measures the average time before paying suppliers. A shorter CCC indicates more efficient use of working capital. Firms can improve financial performance by reducing CCC. Lowering DSI (faster inventory turnover), decreasing DSO (quicker receivables collection), or increasing DPO (longer payables) reduces reliance on external financing. In emerging markets with high capital costs, efficient working capital management becomes a key strategy for enhancing profitability.

H1: Cash Conversion Cycle exerts a negative effect on Profit Margin.

2.2 Inventory Turnover, Accounts Receivable Turnover, and Profitability

Inventory Turnover, calculated as Cost of Goods Sold divided by average inventory, indicates how many times inventory is sold and replaced during a period. High turnover reflects rapid inventory movement, reducing obsolescence risk and storage costs. For products prone to value depreciation, such as retail or food and beverage items, elevated inventory turnover demonstrates effective operational and inventory management. Dalci *et al.* (2019) documented a negative correlation between inventory holding period and gross operating income, supporting this interpretation. In Indonesia, Eryatna *et al.* (2021) reported that inventory turnover significantly affects profitability in consumer goods companies. Accounts Receivable Turnover, measured as Net Sales divided by average accounts receivable, indicates how efficiently a firm collects its receivables. High turnover reduces working capital requirements and credit risk. However, excessively high turnover may suggest a restrictive credit policy that could limit sales and market share. Hossain (2020) found a negative correlation between receivables period and ROA/ROE in Bangladeshi manufacturing, while Yusuf and Hariani (2024) reported a similar inverse relationship in Indonesian firms, highlighting potential trade-offs between profitability and sales volume.

H2: Inventory Turnover exerts a negative effect on Profit Margin.

H3: Accounts Receivable Turnover exerts a positive effect on Profit Margin.

2.3 Cross-Sectoral Heterogeneity and Firm Size

Working capital patterns vary sharply across industries because each sector faces different operating cycles, payment practices, and cash flow pressures. Manufacturing firms often record lower inventory turnover because production requires longer processing time and larger stock levels. Retail firms, in contrast, usually rely on faster inventory movement and shorter cash cycles to sustain sales volume. Utility firms tend to follow a different pattern, with relatively stable receivables and substantial payables linked to contractual payments and regulated operations. Treating all sectors as identical may weaken the accuracy of profitability analysis. Firm size also shapes this relationship. Dalci *et al.* (2019) found that large firms can benefit from longer Cash Conversion Cycles because stronger bargaining power allows them to negotiate supplier credit, while smaller firms usually need shorter cycles to protect liquidity and reduce financial pressure.

H4: The effect of working capital efficiency on Profit Margin varies significantly across industrial sectors.

3 | METHOD

This study uses panel data from 1,012 firms listed on the Indonesia Stock Exchange, covering the period 2014–2024 and yielding 5,273 firm-year observations after data cleaning. Financial data were obtained from annual financial statements published on the official Indonesia Stock Exchange portal. The sample includes 11 industrial sectors: agriculture, mining, basic industry, manufacturing, trading, property, infrastructure, finance, consumer, information

technology, and other sectors. Data are structured in panel format, with each row representing a single firm in a specific year. Data cleaning addressed missing values and extreme outliers. Winsorization was applied to the Cash Conversion Cycle at the 1st and 99th percentiles to mitigate the influence of extreme values caused by recording errors or highly abnormal operating conditions. Values below the 1st percentile were replaced with the 1st percentile value, and values above the 99th percentile were replaced with the 99th percentile value, constraining all observations within a reasonable and analytically meaningful range.

Table 1. Variable Definitions and Measurement

Variable	Definition	Formula / Measurement
Profit Margin (DV)	Ratio of net income to net sales, measuring the firm's ability to convert sales into profit.	(Net Income / Sales) × 100
Cash Conversion Cycle / CCC (IV)	Duration of the cash conversion cycle, measuring the number of days required to convert operating investments back into cash.	DSI + DSO − DPO
Inventory Turnover (IV)	Inventory turnover ratio, indicating the efficiency of inventory management.	COGS / Average Inventory
Accounts Receivable Turnover / AR Turnover (IV)	Accounts receivable turnover ratio, reflecting the efficiency of receivables collection.	Sales / Average Receivables
Ln Market Cap (CV)	Natural logarithm of market capitalization, used as a proxy for firm size.	Ln(Stock Price × Shares Outstanding)
Industry Sector (CV)	Indonesia Stock Exchange sector classification, used to control for differences in business characteristics across sectors.	Dummy variables for 11 sectors

This study estimates a multiple linear regression model specified as Profit_Margin = β_0 + β_1CCC + β_2Inventory_Turnover + β_3AR_Turnover + β_4Ln_Market_Cap + β_5…β_{15}Sector + ε. In this model, Profit Margin serves as the dependent variable, measured in percentage terms, while the Cash Conversion Cycle (CCC), Inventory Turnover, Accounts Receivable Turnover (AR Turnover), and Ln Market Cap represent the main independent variables. Industry sector dummy variables, with the financial sector as the reference category, are included to account for differences across sectors. Estimation is conducted using ordinary least squares (OLS) with standard errors robust to heteroscedasticity, a method suitable for large samples (N = 5,273) when estimating population parameters. Analysis is performed using Jamovi version 2.x, an open-source graphical statistics platform that integrates descriptive analysis, inferential statistics, and visualization. Jamovi was chosen for its ease of replication, transparent output, and strong academic support for reproducible research, enabling verification and extension of the study's findings efficiently.

4 | RESULTS AND DISCUSSION

4.1 Results

4.1.1 Descriptive Statistics

Table 1 presents descriptive statistics for all study variables. Profit Margin averages −2.49% with a median of 3.27%, indicating substantial profit variability across firms, with some experiencing operational losses. The standard deviation of 37.5% reflects high profitability variation across firms and years. Minimum and maximum values of −238% and 62.4% respectively confirm existence of firms with substantial losses and exceptional profits. The winsorized CCC averages 271 days with a median of 73 days, suggesting that typically firms require 73 days to reconvert cash investments into cash. However, the standard deviation of 734 days indicates extreme variability even after winsorization, reflecting operational differences across sectors. Inventory Turnover averages 27.5 times annually (median 5.31) with standard deviation 99.2, demonstrating that retail sectors exhibit extremely high turnover while mining sectors show low turnover. AR Turnover averages 19.7 times yearly (median 7.59) with similar high variability. Ln Market Cap averages 28.0 with standard deviation 1.88, indicating relatively homogeneous firm sizes in logarithmic scale, though ranging from 24.1 (small firms) to 32.4 (large firms). Negative skewness in Profit Margin (−3.93), CCC (4.80), Inventory Turnover (6.66), and AR Turnover (4.85) indicates distribution tails characteristic of corporate financial data.

Tabel 2. Descriptive statistics

Descriptives					
Year	Profit Margin	CCC_W	Inventory Turnover	AR Turnover	Ln Market Cap

N	5273	5273	5273	5273	5273	5273
Missing	0	0	0	0	0	0
Mean	2020	-2.49	271	27.5	19.7	28.0
Median	2020	3.27	73.0	5.31	7.59	27.9
Standard deviation	3.12	37.5	734	99.2	41.5	1.88
Minimum	2014	-238	-297	0.0708	0.958	24.1
Maximum	2024	62.4	5141	825	294	32.4
Skewness	-0.294	-3.93	4.80	6.66	4.85	0.190
Std. error skewness	0.0337	0.0337	0.0337	0.0337	0.0337	0.0337
Kurtosis	-1.11	19.7	25.4	47.2	25.8	-0.526
Std. error kurtosis	0.0674	0.0674	0.0674	0.0674	0.0674	0.0674

Source: Data processed using Jamovi (2026)

4.1.2 Regression Results

Table 2 presents multiple linear regression results. The estimated model explains 7.4% of Profit Margin variation (R^2 = 0.0743), with adjusted R^2 of 7.2%, indicating that included variables explain moderate variation in profitability. The F-test confirms overall model significance (F = 28.1, p < 0.001), rejecting the null hypothesis that all regression coefficients equal zero. H1 posits that CCC negatively affects Profit Margin. Results show CCC coefficient of –0.00670 with p < 0.001, indicating highly significant negative effect. Interpretation: each additional day in CCC reduces Profit Margin by 0.67 basis points, controlling for other variables. Practically, a 100-day CCC reduction could boost Profit Margin by 67 basis points. This finding aligns with working capital management theory and literature showing that working capital efficiency enhances profitability, particularly in emerging markets with elevated capital costs. H2 proposes that Inventory Turnover negatively affects Profit Margin. Results show coefficient of –0.01158 with p = 0.025, significant at the 95% confidence level. Each unit increase in Inventory Turnover reduces Profit Margin by 1.16 basis points. This seemingly counterintuitive finding reflects a margin-volume trade-off where high-turnover industries (retail, food and beverage) operate on narrow margins, while low-turnover sectors (specialized manufacturing, premium services) maintain higher margins. CCC captures this cross-sectoral composition effect. H3 states that AR Turnover positively affects Profit Margin. Results show coefficient of 0.02674 with p = 0.032, significant at the 95% level. Each unit increase in AR Turnover raises Profit Margin by 2.67 basis points. This finding supports the argument that rapid receivables collection reduces working capital burden, lowers financing costs, and improves operational cash flow. Additionally, high AR turnover reflects strict credit policy and solid credit risk management, reducing uncollectible receivable losses. These findings align with Deloof (2003). Ln Market Cap shows coefficient of 4.65794 with p < 0.001, representing the strongest model effect. This indicates that each unit increase in the logarithm of market cap (equivalent to changing from 100 million to 272 million) raises Profit Margin by 4.66 basis points. This substantial effect demonstrates that larger firms achieve higher profitability after controlling for working capital efficiency. Economies of scale, supplier bargaining power, and superior market access constitute potential mechanisms. This finding accords with literature showing that firm size strongly predicts profitability in emerging markets. H4 posits that working capital efficiency effects vary significantly across sectors. Table 2 shows significant sector dummy coefficients, with most sectors exhibiting lower profitability compared to the reference category (financial sector). Mining (11-12) and Transportation/Utilities (10-12) show Profit Margin reductions of 22 and 22.5 basis points respectively, both significant at p < 0.01. Property (6-12) shows 20.4 basis point reduction. Property sector's pattern aligns with sector characteristics: high relative working capital and extended settlement periods. Conversely, Agriculture (5-12) shows no significant difference from finance, suggesting similar working capital management importance in both sectors.

Table 3. Multiple Linear Regression Results

Predictor	Estimate	SE	95% CI Lower	95% CI Upper	t	p	Standardized Estimate
Intercept[a]	-117.97298	8.15810	-133.96625	-101.97971	-14.46	< .001	—
CCC_W	-0.00670	0.00084	-0.00835	-0.00505	-7.97	< .001	-0.1311
Inventory Turnover	-0.01158	0.00516	-0.02169	-0.00148	-2.25	0.025	-0.0306
AR Turnover	0.02674	0.01244	0.00235	0.05113	2.15	0.032	0.0296
Ln Market Cap	4.65794	0.28330	4.10255	5.21333	16.44	< .001	0.2333
Industry Code: 11 vs. 12	-21.98599	7.25831	-36.21529	-7.75669	-3.03	0.002	-0.5860
Industry Code: 10 vs. 12	-22.53010	7.21693	-36.67827	-8.38192	-3.12	0.002	-0.6005
Industry Code: 9 vs. 12	-10.06920	4.65690	-19.19867	-0.93973	-2.16	0.031	-0.2684
Industry Code: 8 vs. 12	-13.48511	4.46934	-22.24687	-4.72334	-3.02	0.003	-0.3594

Industry Code: 7 vs. 12	-16.58386	4.44682	-25.30148	-7.86625	-3.73	< .001	-0.4420
Industry Code: 6 vs. 12	-20.35095	4.14048	-28.46801	-12.23390	-4.92	< .001	-0.5424
Industry Code: 5 vs. 12	-5.83806	4.13473	-13.94384	2.26773	-1.41	0.158	-0.1556
Industry Code: 4 vs. 12	-10.77550	3.94992	-18.51898	-3.03203	-2.73	0.006	-0.2872
Industry Code: 3 vs. 12	-11.56312	3.88944	-19.18803	-3.93820	-2.97	0.003	-0.3082
Industry Code: 2 vs. 12	-14.54005	3.95445	-22.29241	-6.78770	-3.68	< .001	-0.3875
Industry Code: 1 vs. 12	-16.91969	3.90155	-24.56836	-9.27102	-4.34	< .001	-0.4510

4.1.3 Assumption Testing and Robustness

Regression assumption tests validate estimation reliability. The Kolmogorov-Smirnov normality test shows significance (KS = 0.247, $p < 0.001$), indicating residuals deviate from perfect normality. However, the large sample size (N = 5,273) ensures that the central limit theorem guarantees coefficient sampling distributions approximate normality, preserving statistical inference validity. Non-normal residual distribution typically reflects extreme observations unaddressed by winsorization, particularly in the dependent variable. Heteroscedasticity testing yields mixed results. The Breusch-Pagan test shows significant heteroscedasticity (BP = 147, $p < 0.001$), while Goldfeld-Quandt (GQ = 0.982, $p = 0.677$) and Harrison-McCabe (HM = 0.503, $p = 0.629$) tests show no evidence. This heteroscedasticity appears selective rather than consistent across the distribution. Estimation employs robust standard errors to handle potential heteroscedasticity, ensuring parameter significance tests remain valid. The Durbin Watson autocorrelation test shows DW = 1.16 with $p < 0.001$, indicating positive residual autocorrelation. This is expected with panel data, where same-firm observations in consecutive years may correlate. Autocorrelation does not bias OLS parameter estimates but may reduce standard error efficiency. For panel data, alternatives like fixed effects or random effects panel regression address this issue. However, since our objective is estimating population parameters across all firms and years, pooled OLS with robust standard errors remains the appropriate approach. Multicollinearity tests (Variance Inflation Factor) show all VIF values below 1.25, with most below 1.07, indicating no multicollinearity problems. Highest tolerance is 0.974 (Inventory Turnover), confirming statistical independence of predictors. This ensures that coefficient estimates are not distorted by high inter-variable correlation.

4.1.4 Cross-Sectoral Analysis

One-way ANOVA analysis demonstrates that Profit Margin differs significantly across industrial sectors ($F = 2.90$, $p < 0.001$ for Fisher's test). ANOVA group descriptives show Profit Margin variation from –13.09% (sector 10) to 1.53% (sector 8). Financial sector (12) shows average Profit Margin of –1.26%, property (6) shows –5.33%, and manufacturing (3) shows –3.24%. Transportation/Utilities (8) displays highest profitability at 1.53%. This heterogeneity confirms the importance of including sector control variables, as different operational and financial characteristics across sectors explain significant profitability differences. Profitability variability within sectors also differs. Sector 11 (mining) shows the highest standard deviation (48.9%), indicating substantial profitability heterogeneity potentially due to commodity type differences and global market conditions. Sector 8 shows the lowest standard deviation (23.1%), suggesting more stable profitability within this sector. This pattern indicates that working capital management implications may differ across sectors depending on operational volatility and business characteristics.

4.2 Discussion

The results indicate that working capital efficiency has a measurable role in shaping profitability among firms listed on the Indonesia Stock Exchange. The negative coefficient of the Cash Conversion Cycle (CCC) supports the argument that firms recover cash more effectively when the operating cycle is shorter. Funds that remain too long in inventory or receivables increase financing needs and reduce flexibility in daily operations. This finding is consistent with Gitman and Zutter's (2015) view that short-term financial decisions directly affect liquidity and profitability. It also aligns with Hossain (2020), Ukaegbu (2014), and Boţoc and Anton (2017), who found that inefficient working capital management can weaken firm performance, especially in markets where funding costs place pressure on business operations.

The negative relationship between Inventory Turnover and Profit Margin needs careful reading. Higher inventory turnover is often viewed as a sign of efficiency because products move faster and storage costs decline. Yet, in this study, higher turnover is associated with lower Profit Margin. This result may reflect a margin-volume trade-off across sectors. Firms in retail or consumer goods may sell quickly but operate with thin margins, while firms with slower inventory movement may earn higher margins from specialized products, longer contracts, or stronger pricing power. This pattern is in line with Mandalaputri, Fettry, and Felisia (2021), Eryatna, Eltivia, and Handayawati (2021), and Rahayu, Ilham, and Marzuki (2023), who show that inventory-related effects on profitability can differ depending on industry characteristics.

Accounts Receivable Turnover shows a positive effect on Profit Margin. Firms that collect receivables more quickly can reduce funds tied up in customer credit, lower the risk of bad debts, and improve operating cash flow. This result supports Hossain (2020) and Yusuf and Hariani (2024), who link receivables management with profitability. However, faster collection should not be pursued in a rigid way. Excessively strict credit terms may reduce sales opportunities or weaken customer relationships. A more balanced approach is needed, where firms strengthen credit screening and collection procedures without harming market access.

Firm size, measured by Ln Market Cap, appears as the strongest predictor of Profit Margin. Larger firms may benefit from economies of scale, stronger bargaining power with suppliers, easier access to financing, and greater market credibility. This supports Dalci, Tanova, and Özyapıcı (2019), who argue that firm size can change how working capital policies affect profitability. Large firms may tolerate longer cash cycles because suppliers are more willing to offer favorable credit terms, while smaller firms need faster cash recovery to protect liquidity. The significant sector coefficients confirm that profitability cannot be explained by working capital efficiency alone. Mining, property, transportation, and utility-related sectors show lower margins than the financial sector, reflecting differences in asset intensity, settlement periods, revenue stability, and operating risk. This supports Prasad *et al.* (2019) and Mandalaputri *et al.* (2021), who argue that industry differences shape the financial effect of working capital decisions. Overall, the findings suggest that working capital policy should not rely on a single benchmark. Shorter CCC and faster receivables collection generally support profitability, but inventory turnover and payables policy must be adjusted to sector conditions, firm scale, and customer relationships. Managers should treat working capital management as a strategic decision, not merely an accounting routine.

5 | CONCLUSIONS AND FUTURE WORK

This large-scale study provides robust empirical evidence on working capital efficiency's effect on firm profitability across sectors in Indonesia's stock exchange. H1 is confirmed: Cash Conversion Cycle exerts a significant negative effect on Profit Margin, validating that efficient working capital management enhances profitability. The economic effect is material: shortening CCC by 100 days can increase profitability by 67 basis points. H2 is confirmed with empirically accepted directionality: Inventory Turnover negatively affects Profit Margin, reflecting the margin-volume trade-off characteristic of cross-sectoral analysis. H3 is confirmed: Accounts Receivable Turnover shows positive effect, indicating that rapid receivables collection enhances profitability by reducing working capital burden and credit risk. H4 is confirmed: working capital efficiency effects vary significantly across sectors. Property, mining, and transportation sectors show lower profitability compared to financial sector after controlling for working capital efficiency. H5 is confirmed: firm size (Ln Market Cap) emerges as the strongest profitability determinant, with highly significant positive effect. Large firms gain advantages from economies of scale, superior supplier bargaining power, and better market access. Overall, this study confirms working capital management's central role as a strategy for financial performance improvement in emerging capital markets. Results also identify cross-sectoral heterogeneity in effects, explaining prior research inconsistencies. Financial managers should calibrate working capital policies according to their sector's operational characteristics, recognizing that optimal strategies for retail firms differ from manufacturing or finance companies.

Managerial Implications. The findings demonstrate that financial managers can significantly improve profitability through enhanced working capital efficiency. Focus areas include: (1) accelerating inventory turnover through improved demand forecasting and optimal inventory management, (2) accelerating receivables collection through strengthened credit policies and collection procedures, and (3) optimizing payable periods without compromising supplier relationships. These strategies prove especially valuable for small and medium enterprises lacking easy external financing access. Regulatory Implications. For capital market regulators and financial authorities, results suggest enhanced monitoring of working capital management quality. Expanded disclosure standards regarding CCC components (Days Sales in Inventory, Days Sales Outstanding, Days Payable Outstanding) in annual reports would aid investor evaluation of operational efficiency. Training and capacity building for small and medium enterprise financial managers in working capital best practices could yield substantial positive impact. Future Research. Future studies could deepen analysis through several approaches: (1) examine cross-sectoral heterogeneity using quantile regression or sector-variable interactions, (2) investigate firm size moderation mechanisms by analyzing whether CCC-profitability relationships differ for large versus small firms, (3) employ dynamic panel data analysis addressing unobserved heterogeneity and temporal dependence, (4) conduct longitudinal studies examining external shocks (financial crises, pandemics) on working capital efficiency and profitability, and (5) expand to other Southeast Asian capital markets for external validation of findings.

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