STRATEGIC CREDIT POLICY ADJUSTMENTS DURING ECONOMIC SHOCKS: LESSONS FROM INDONESIA'S MANUFACTURING SECTOR

Fenty Fauziah[*)1], Siti Rosa Lismawati[*)], Nur Hanisfatin Rushami Zien[**)]

[*)]Universitas Muhammadiyah Kalimantan Timur
Jl. Ir. H. Juanda No. 15, Sidodadi, Samarinda Ulu District, Samarinda City, East Kalimantan 75124, Indonesia
[**)]Universiti Utara Malaysia
Sintok, 06010 Bukit Kayu Hitam, Kedah, Malaysia

Article history:
Received
13 February 2025

Revised
21 April 2025

Accepted
11 August 2025

Available online
30 September 2025

Abstract:

Background: Receivables management is a critical component of working capital strategy, particularly during periods of economic disruption. The COVID-19 pandemic posed liquidity challenges for manufacturing firms, testing the balance between RTO, ACP, and profitability.
Purpose: This study investigates the effects of Receivables Turnover (RTO) and Average Collection Period (ACP) on the profitability of manufacturing firms in Indonesia, measured by Return on Assets (ROA), during the COVID-19 crisis and post-pandemic recovery.
Design/methodology/approach: Using panel data from 167 manufacturing companies listed on the Indonesia Stock Exchange (IDX) between 2018 and 2023, this research applies panel data regression to analyze the relationship between receivables indicators and firm profitability.
Findings/Results: The analysis shows that higher RTO is positively associated with ROA, indicating enhanced profitability through efficient cash recovery. Conversely, longer ACP negatively impacts ROA. However, in 2020, firms strategically extended ACP to support customer relationships, which, while reducing short-term returns, improved performance in the recovery years.
Conclusion: Credit policies serve a dual function: enhancing liquidity and fostering customer retention. Flexible receivables strategies can buffer firms during crises and position them for post-crisis resilience.
Originality/value (State of the art): This study offers timely insights into how receivables management can be leveraged as a strategic response to economic shocks in emerging markets.

Keywords: profitability, receivables turnover, average collection period, credit policy, economic shocks

How to Cite:
Fauziah, F., Lismawati, S. R., & Zien, N. H. R. (2025). Strategic credit policy adjustments during economic shocks: Lessons from Indonesia's manufacturing sector. Jurnal Aplikasi Bisnis dan Manajemen (JABM), 11(3). https://doi.org/10.17358/jabm.11.3.894

[1] Corresponding author:
Email: ff230@umkt.ac.id

INTRODUCTION

The strategic adjustment of credit policies during economic shocks is crucial for enhancing the resilience of Indonesia's manufacturing sector. The COVID-19 pandemic triggered one of the most severe global economic crises in modern history (Echarte Fernández et al. 2021), severely disrupting business operations across sectors and regions (Banerjee et al. 2020; Saputra & Hendri, 2024). Among the most affected areas was working capital management, particularly accounts receivable management, which plays a pivotal role in maintaining liquidity, profitability, and business continuity (Huynh et al. 2025). The sudden drop in demand, supply chain interruptions, and constrained cash flows during the pandemic forced firms especially those in the manufacturing sector to reconfigure their financial strategies to adapt to rapidly evolving market conditions (KPMG, 2020).

In 2023, Indonesia's manufacturing sector, which contributes approximately 18.67% to GDP and employs millions across various sub-sectors, recorded economic growth of 0.95%, accounting for part of the country's total 5.05% economic growth (Direktorat Statistik Industri, 2024). Despite its significant role, the sector was not immune to disruptions (Thorbecke, 2023). As companies grappled with reduced revenues and uncertain cash inflows, they increasingly relied on credit sales to retain customers and maintain operational stability (Bruhn et al. 2023). However, this shift introduced additional challenges in receivables management, particularly as clients delayed payments due to liquidity issues (Kumar et al. 2024). Consequently, the average collection period lengthened, placing additional stress on firms' ability to meet short-term obligations and affecting profitability.

Previous studies have extensively examined the relationship between receivables management and firm profitability, especially in the context of economic disruptions. Gitman et al. (2013) established foundational principles, highlighting that efficient receivables turnover (RTO) and shorter average collection periods (ACP) generally enhance liquidity and profitability by accelerating cash inflows and reducing bad debt risks. Empirical studies by Kumar et al. (2024) and Shah (2020) further confirmed these findings, showing that firms with higher RTO ratios exhibit stronger financial performance due to improved reinvestment capacity and reduced reliance on external financing. Conversely, Detthamrong & Chansanam (2023) and Pham & Huynh (2020) offered more nuanced perspectives, arguing that lenient credit terms, while temporarily dampening profitability, can foster customer loyalty and market share growth, especially in industries with cyclical demand.

Myers (1984) introduced the Trade-Off Theory, which posits that businesses weigh the benefits of debt (e.g., tax advantages and improved managerial discipline) against its costs (e.g., financial distress and agency conflicts). The optimal capital structure occurs where the marginal benefit of debt equals its marginal cost. Extending this framework to receivables and credit policy, the Trade-Off Theory suggests that firms weigh the advantages of offering credit such as higher sales and stronger customer loyalty against drawbacks such as delayed cash flows and increased default risk. An optimal receivables strategy therefore emerges when these trade-offs are balanced to maximize firm value. Studies by Sari & Ainun (2024) and Tarighi et al. (2024) applied this theory, showing that firms balance the costs of delayed cash inflows against the benefits of customer retention during crises. For instance, during the 2008 financial crisis, firms that extended credit terms experienced short-term liquidity sacrifices but secured long-term customer relationships (Hofmann et al. 2022). Similarly, Wajo (2021) observed that Indonesian manufacturing firms dynamically adjusted credit policies during economic shocks, prioritizing market stability over immediate profitability.

The COVID-19 pandemic introduced unprecedented challenges, prompting new research on receivables management. Banerjee et al. (2020) and KPMG (2020) documented how firms globally extended payment terms to mitigate customer liquidity constraints, albeit at the cost of heightened working capital pressures. In emerging markets such as Indonesia, studies by Thorbecke (2023) and Bruhn et al. (2023) revealed that industries handle customer credit differently. For example, food and beverage firms prioritize quick turnover due to perishable inventory, while capital-intensive industries like manufacturing often allow longer payment periods to retain clients. Recent research by Huynh et al. (2025) emphasized the role of adaptive credit monitoring systems, showing that firms with real-time data on customer solvency could implement selective credit policies that helped minimize financial strain.

This study contributes to the literature by offering a comprehensive, sector-specific analysis of credit policy adjustments in Indonesia's manufacturing sector during and after the COVID-19 pandemic. Unlike prior research, which often focused on stable economic conditions or generalized crises, this study captures the unique dynamics of an emerging market facing a global health crisis. By analyzing panel data from 167 firms across three manufacturing sectors Industrial Processing, Diversified Manufacturing, and Consumer-Oriented Goods the research provides granular insights into how sub-sectors such as Food & Beverage and Textile Processing tailored credit strategies to their operational needs.

A key novelty of this study lies in the integration of Trade-Off Theory with strategic signaling. It demonstrates that extended ACP during the pandemic served not only as a liquidity tool but also as a goodwill signal, aligning with Tarighi et al. (2024), who argued that credit terms function as trust-building mechanisms. Furthermore, the findings reveal a strategic phenomenon in which firms deliberately prioritized long-term customer retention over short-term profitability during periods of economic stress. Notably, these firms exhibited stronger post-crisis recovery, suggesting that temporary profit sacrifices can yield resilience benefits an underexplored trend in the literature. The study also addresses gaps in context-specific research by highlighting how traditional industries in Indonesia dominated credit policy adaptations, with limited representation from the high-tech sector. By combining quantitative analysis with theoretical frameworks, this research advances the understanding of receivables management as a dual-function strategy that balances liquidity and customer retention, while offering actionable insights for policymakers and managers in emerging markets.

The study begins by clearly defining the problem, examining how economic shocks such as COVID-19 affect receivables management and profitability in Indonesia's manufacturing sector. To address this issue, the researchers collected and analyzed panel data from 167 manufacturing firms, focusing on key metrics such as Receivables Turnover (RTO), Average Collection Period (ACP), and Return on Assets (ROA). Hypotheses were developed to test the relationships among these variables, grounded in the Trade-Off Theory, which emphasizes balancing liquidity with customer retention. Rigorous statistical tests, including regression analysis and classical assumption checks, were applied to validate the findings. The results indicated that higher RTO enhanced profitability, while extended ACP imposed short-term costs but yielded long-term benefits for customer relationships. These findings led to actionable recommendations, such as tightening credit policies during stable periods and adopting more flexible terms during crises. The study underscores the importance of data-driven decision-making, adaptive strategies, and continuous monitoring to navigate uncertainties. By presenting these insights clearly, the research provides valuable guidance for managers and policymakers, demonstrating how theoretical frameworks and empirical analysis can inform real-world problem-solving.

This approach highlights the need for a balanced perspective, integrating quantitative analysis with strategic flexibility to address complex challenges effectively. Whether applied to financial management or broader business issues, the methodology emphasizes the value of evidence-based solutions, iterative adjustments, and effective stakeholder communication. The study thus serves as a model for systematic problem-solving, ensuring decisions are both analytically sound and contextually relevant.

This study aims to examine the impact of receivables management on the profitability of manufacturing firms in Indonesia, specifically analyzing how Receivables Turnover (RTO) and Average Collection Period (ACP) influence Return on Assets (ROA) during and after the COVID-19 pandemic. It investigates the strategic adjustments firms made to their credit policies in response to economic shocks, focusing on the trade-offs between short-term profitability and long-term customer retention. Additionally, the study explores the dual role of credit policies as both a liquidity management tool and a mechanism for sustaining customer relationships during crises. By providing actionable insights for financial managers and policymakers, the research seeks to guide the optimization of receivables management to enhance firm resilience. Furthermore, it addresses gaps in the existing literature by examining how receivables indicators perform under macroeconomic shocks in emerging markets, applying the Trade-Off Theory to crisis-driven credit policy decisions. Ultimately, the study contributes to a deeper understanding of the strategic role of receivables management in navigating economic disruptions and improving firm performance.

METHODS

The population of this study consists of 340 manufacturing companies listed on the Indonesia Stock Exchange (IDX). The research utilized secondary data collected from various sources, including financial statements, annual reports, performance reports, public disclosures, and mass media reports of manufacturing firms between 2018 and 2023. This timeframe enabled the study to capture the pre-crisis, crisis (COVID-19), and post-crisis phases. The data focused on key variables such as Receivables Turnover (RTO) and Average Collection Period (ACP) as independent variables, and Return on Assets (ROA) as the dependent variable representing profitability. The dataset covered three main manufacturing sectors: Industrial Processing, Diversified Manufacturing, and Consumer-Oriented Goods, along with sub-sectors such as food and beverage production and textile processing.

A total of 167 manufacturing companies listed on the IDX were selected based on specific eligibility criteria. Only firms that consistently reported complete financial data required to calculate Receivables Turnover (RTO), Average Collection Period (ACP), and Return on Assets (ROA) over six years (2018–2023) were included. Companies with incomplete or inconsistent records were excluded to maintain the reliability and validity of the panel data analysis. To ensure adequate representation across sectors, stratification was applied to cover various manufacturing sub-sectors, while simple random sampling was conducted using Microsoft Excel's =RAND() function to avoid selection bias. Although more than 167 manufacturing companies are listed on the IDX, this curated sample size generated 1.002 firm-year observations, providing sufficient statistical power and methodological rigor. Thus, the selected sample ensured a balance between data quality, sectoral diversity, and analytical robustness in assessing the impact of receivables management on profitability during economic shocks.

The study employed several data analysis techniques to examine the relationship between receivables management and firm profitability in Indonesia's manufacturing sector (Table 1). Secondary data from financial statements and annual reports of 167 IDX-listed companies (2018–2023) were used. Key variables included Receivables Turnover (RTO), Average Collection Period (ACP), and Return on Assets (ROA), which served as indicators of credit efficiency and profitability (Brigham & Houston, 2019).

Before conducting regression analysis, the study performs classical assumption tests normality, multicollinearity, heteroscedasticity, and autocorrelation to ensure the validity of the model. These hypotheses are empirically grounded in the cited studies and align with the Trade-Off Theory, providing a framework for analyzing credit policy adjustments during economic shocks.

H1: Receivables Turnover (RTO) has a positive and significant effect on firm profitability during crisis and recovery periods.

This hypothesis suggests that firms with higher RTO those that collect receivables more efficiently experience improved profitability. Efficient receivables turnover enhances liquidity, reduces the risk of bad debts, and increases a firm's capacity to reinvest in operations. During crises such as the COVID-19 pandemic, firms with rapid cash conversion cycles are better positioned to maintain financial stability and respond effectively to disruptions. This is supported by findings from Kumar et al. (2024), Shah (2020), and Wajo (2021), who confirm that higher RTO is positively associated with stronger financial performance, particularly during economic shocks.

Table 1. Operational definition

Variable	DefInition	Measurement
Dependent		
Profitability (ROA)	The capacity of the business to turn a profit within a specific time frame	ROA = Net profit/ Total assets
Independent		
Receivables Turnover (RTO)	A measure of a business's speed at collecting receivables from clients.	RTO = Net sales/Average accounts receivable
Average Collection Period (ACP)	The period for collecting receivables from customers which is carried out from credit transactions until the receivables are paid off.	ACP = 365 days/Receivables turnover ratio

H2: Average Collection Period (ACP) has a negative and significant effect on firm profitability during crisis and recovery periods.

This hypothesis posits that longer collection periods hinder profitability by delaying cash inflows, straining liquidity, and increasing default risk. Extended ACP reflects inefficiency in receivables management, limiting a firm's ability to meet short-term obligations or reinvest funds. Studies by Rey-Ares et al. (2021) and Garg & Singh (2024) confirm this negative association. However, Huynh et al. (2025) noted that firms may intentionally extend ACP during crises to support customer solvency, illustrating a strategic, albeit temporary, trade-off.

H3: Receivables Turnover (RTO) and Average Collection Period (ACP) together have a significant effect on profitability during and after the crisis.

This hypothesis reflects the view that RTO and ACP interactively shape firm profitability. According to the Trade-Off Theory (Myers, 1984), firms must balance liquidity through efficient receivables turnover with strategic credit practices, such as extending ACP for key customers. Joint analysis of RTO and ACP provides a more comprehensive understanding of receivables management strategies. Empirical studies such as Knauer & Wöhrmann (2013) confirm that integrated credit policies significantly affect profitability, especially during periods of economic fluctuation.

H4: Firms that extended collection periods during economic crises experienced reduced short-term profitability but gained strategic customer retention benefits that contributed to profitability in subsequent recovery years.

This hypothesis highlights the long-term strategic role of credit extensions during crises. While longer ACP may reduce profitability in the short term due to slower cash inflows, it can strengthen customer loyalty, preserve market relationships, and protect future revenues. Agarwal et al. (2022) and Prajawati (2022) provide empirical evidence that firms offering flexible credit terms during the COVID-19 crisis later benefited from stronger customer retention and improved post-crisis performance. This reflects a deliberate trade-off between short-term costs and long-term gains.

All hypotheses are grounded in the Trade-Off Theory (Myers, 1984), which asserts that firms seek to achieve an optimal financial position by balancing the benefits and costs of various financing and operational strategies. Although traditionally applied to debt–equity decisions, the theory is extended in this study to the domain of working capital management, particularly receivables management during economic shocks. Within this framework, Receivables Turnover (RTO) represents a liquidity-enhancing mechanism, where faster conversion of receivables into cash improves short-term solvency, minimizes default risk, and facilitates reinvestment. Conversely, Average Collection Period (ACP) reflects a firm's customer relationship strategy, where more lenient credit terms may weaken liquidity but strengthen customer loyalty and long-term revenue stability.

The central trade-off lies in the managerial decision of whether to prioritize cash efficiency through strict credit policies or market stability through flexible terms, particularly in times of financial distress. During the COVID-19 pandemic, many firms deliberately extended ACP to support buyer solvency, even at the expense of short-term profitability. This strategic response is supported by studies such as Huynh et al. (2025) and Agarwal et al. (2022), which illustrate the practical application of the trade-off principle. Moreover, research by Kiymaz et al. (2024) and Knauer & Wöhrmann (2013) confirms that firms with adaptive, context-sensitive credit strategies tend to outperform those with rigid policies. Overall, the Trade-Off Theory provides a relevant theoretical foundation for examining how firms manage credit policies under uncertain conditions, offering insights into the dynamic relationship between receivables strategies and profitability during and after economic shocks.

RESULTS

The research in the manufacturing sector yielded a sample of 167 companies, as shown in Figure 1, comprising the basic industry and chemical sector, the miscellaneous industry sector, and the consumer goods industry sector. The distribution of manufacturing firms across different subsectors on the Indonesia Stock Exchange is presented in Table 2. Food and Beverage Production accounted for the largest share, followed by Textile Processing and Apparel, as well as Metal Fabrication and Alloys. In contrast, subsectors such as

Consumer Electronics and Machinery and Tools had the fewest companies. This distribution underscores the dominance of traditional industries in Indonesia's manufacturing sector, with limited representation from high-technology fields.

This study employs secondary data obtained from the annual financial reports of publicly listed companies, accessed through their official websites and the Indonesia Stock Exchange (IDX) portal, covering the period from 2018 to 2023. The dataset includes two independent variables Receivables Turnover (RTO) and Average Collection Period (ACP) and one dependent variable, Return on Assets (ROA), which serves as a proxy for profitability.

The data are structured as panel data, combining cross-sectional information from 167 companies with time-series data over six fiscal years. These companies are distributed across three main manufacturing sectors: Industrial Processing, Diversified Manufacturing, and Consumer-Oriented Goods. These sectors were deliberately selected to reflect the diverse operational structures and financial practices within Indonesia's manufacturing industry, thereby enabling a more comprehensive and context-specific analysis of how receivables management influences corporate profitability over time.

The trend from 2018 to 2023 in Figure 1 illustrates how manufacturing firms in Indonesia adapted their credit policies in response to the economic challenges posed by COVID-19. In 2018 and 2019, receivables turnover (%) was relatively high and the collection period (in days) remained stable, indicating efficient credit management and strong profitability. However, in 2020, the collection period rose sharply to 75 days, while receivables turnover declined significantly. This shift reflects firms' adjustments in offering longer payment terms to maintain customer relationships during the pandemic. Consequently, profitability also declined in that period. From 2021 to 2023, firms gradually reinstated tighter credit controls. The collection period shortened, receivables turnover improved, and profitability steadily increased. By 2023, the financial indicators had nearly returned to pre-pandemic levels. This pattern suggests that companies employed credit policy not only as a financial management tool but also as a strategic mechanism to retain customers during times of uncertainty.

Descriptive statistics were calculated to provide an overview of the distribution and central tendencies of the key variables: Receivables Turnover (RTO), Average Collection Period (ACP), and Return on Assets (ROA). The analysis was based on panel data from 167 manufacturing firms over a six-year period (2018–2023), resulting in 1,002 firm-year observations.

Table 2. Sample sizes

Manufacturing Sub-sector	Number of Companies
Food & Beverage Production	26
Textile Processing and Apparel	20
Metal Fabrication and Alloys	18
Flexible Packaging Materials	13
Automotive Systems and Spare Parts	11
Petrochemicals	11
Paper Manufacturing and Recyclables	9
Health and Pharmaceutical Goods	9
Wiring and Electrical Components	8
Glassware and Ceramics	6
Personal Care and Cosmetics	6
Feed and Agricultural Inputs	6
Cement and Concrete Products	6
Tobacco and Related Products	5
Machinery and Tools	5
Consumer Electronics	4
Wood Engineering and Furnishings	4
Total	167

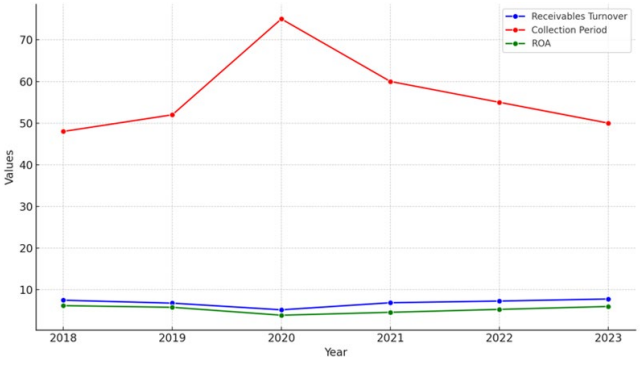

Figure 1. Trend receivable turnover, average collection period, and return on asset

The average RTO of 6.27 indicates that, on average, firms converted their receivables into cash more than six times per year (Table 3). The average ACP of 67.31 days reflects a moderate collection period, although some firms experienced substantial delays, with the maximum reaching over 350 days during periods of economic distress. The average ROA was 4.93 percent, suggesting moderate profitability, while the negative minimum value indicates that some firms incurred losses, particularly during the peak of the COVID-19 crisis.

Data Analysis and Hypothesis Testing

This study employs multiple linear regression analysis to examine the influence of Receivables Turnover (RTO) and Average Collection Period (ACP) on Return on Assets (ROA). Before hypothesis testing, classical assumption tests were conducted to ensure the validity and reliability of the regression model (Table 4). The classical assumption test is a statistical prerequisite that must be fulfilled in multiple linear regression using the Ordinary Least Squares (OLS) method. This test includes assessments for normality, multicollinearity, heteroscedasticity, and autocorrelation.

The results indicate that the data follows a normal distribution, the model is free from multicollinearity issues, the independent variables do not exhibit heteroscedasticity, and no signs of autocorrelation are present. Based on Table 5, the regression equation is:

$$Y = 3.245 + 0.237 \text{ RTO} - 1.649 \text{ ACP} + e$$

From the regression equation, it can be concluded that: $\alpha = 3{,}245$ means that if the Receivables Turnover (RTO) and Average Collection Period (ACP) are both zero, then Profitability (ROA) is 3.245. $\beta 1 = 0.237$ means that for every 1% increase in Receivables Turnover (RTO), Profitability (ROA) will increase by 0.237. $\beta 2 = -1.649$ means that for every 1% increase in the Average Collection Period (ACP), Profitability (ROA) will decrease by 1.649 due to the negative effect.

With a significance level of 5% or 0.05, if the sig.t value > 0.05, then H_0 is accepted, indicating that there is no significant effect of the independent variable on the dependent variable. Conversely, if the sig. t value < 0.05, then H_1 is accepted, indicating that there is a significant effect of the independent variable on the dependent variable.

Tabel 3. Descriptive Statistic

Variable	Mean	Minimum	Maximum	Standard Deviation
Receivables Turnover (RTO)	6.27	1.02	14.88	2.96
Average Collection Period (ACP)	67.31	24.53	357.14	49.12
Return on Assets (ROA)	4.93	-8.75	18.64	3.47

Table 4. Classical assumption test

Classical Assumption Test	Criteria	Result	Conclusion
Normality Test	Residuals should be symmetrically distributed (e.g., via One-Sample Kolmogorov-Smirnov Test)	Asymp. Sig (2-tailed): 0.96 > 0.05	The model satisfies the normality assumption
Multicollinearity Test	Variance Inflation Factor (VIF) < 10 or Tolerance > 0.1	The tolerance value is greater than 0.10 and the VIF value is less than 10	Each variable contributes unique information to the model
Heteroscedasticity Test	Breusch-Pagan or Glejser test shows p-value > 0.05	Heteroscedasticity test found RTO = 0.478 and ACP = 1,77; residuals have constant variance	Regression results are unbiased with valid standard errors
Autocorrelation Test	Durbin-Watson statistic between 1.5 and 2.5. with K = 2 and a sample size of n = 1002, the values of dL= 1.6 dan dU=1.62	Durbin-Watson value is 1.82; 1.6 < 1.82 < 2.38	No autocorrelation observed; residuals are independent

Based on the results of the F test in Table 5, it can be seen that the significance value is 0.017<0.05, it can be concluded that receivables turnover (RTO) and Average collection period (ACP) simultaneously affect profitability (ROA).

The Adjusted R-square value in this study is 0.209 (Table 6), indicating that 20.9% of the variability in profitability can be explained by the receivable turnover and the receivables collection period. The remaining 79.1% is influenced by other factors outside the model, such as macroeconomic conditions, firm size, and other financial indicators. This suggests that while receivables turnover and collection period are important, a comprehensive assessment of profitability must consider a broader range of financial metrics to fully understand the factors at play.

This study provides evidence that receivables management, measured through Receivables Turnover (RTO) and Average Collection Period (ACP), significantly affects firm profitability, particularly during periods of economic instability such as the COVID-19 pandemic. The results are not only statistically significant but also theoretically aligned with the Trade-Off Theory and Strategic Working Capital Management frameworks.

Receivables Turnover and Profitability

The finding that RTO has a positive and significant effect on profitability supports the view that efficient receivables conversion enhances financial performance (Athira et al. 2024). A higher turnover rate reflects a firm's ability to collect receivables quickly, thereby reducing overdue accounts and minimizing the risk of bad debts. This accelerates cash inflows and enables firms to allocate capital more efficiently to operational activities or short-term investments. These findings are consistent with Braimah et al. (2021), who emphasized that a shorter receivables cycle strengthens liquidity, reduces reliance on external financing, and enhances a firm's ability to seize market opportunities.

Furthermore, Hoffman et al. (2022) found that firms with higher receivables turnover ratios demonstrate greater resilience during economic shocks due to stronger internal cash flows and enhanced operational agility. These capabilities are particularly valuable in volatile environments, where access to external capital may be limited or more costly.

In the Indonesian manufacturing context, the improvement in RTO during the post-crisis period (2021–2023) suggests a strategic recalibration of credit and collection policies. After implementing lenient credit terms at the height of the pandemic in 2020, firms subsequently emphasized stricter receivables monitoring and more proactive collection. This transition was likely driven by the dual need to restore liquidity buffers and signal financial robustness to investors and creditors. Such efforts align with broader trends in working capital optimization observed across emerging markets (Kiymaz et al. 2024).

Average Collection Period and Profitability

The finding that ACP negatively impacts ROA confirms that longer credit periods constrain liquidity, delay reinvestment, and heighten default risk, particularly during crises. This result is consistent with Garg & Singh (2024), who found that prolonged collection periods reduce profitability in capital-intensive industries such as manufacturing. In 2020, ACP increased sharply across sectors, reflecting firms' adoption of more lenient credit terms to support customer solvency amid reduced demand and liquidity pressures. While these extensions helped preserve customer relationships, they imposed significant opportunity costs, thereby reducing short-term profitability.

Table 5. Regression Coefficients and t Test

Model	Unstandardized B	Coefficients Std. Error	t	F	Sig.
1 (Constant)	3.245	0.354	8.088		0.000
RTO	0.237	0.073	2.595		0.014
ACP	-1.649	0.000	2.292		0.024
1 Regression				2.947	0.017

Table 6. Coefficient of Determination

Model	R	R-Square	Adjusted R-square
1	1.211	0.267	0.209

From a strategic standpoint, these findings highlight the trade-off firms face between customer retention and liquidity management. According to the Trade-Off Theory, managers must weigh the costs of delayed cash inflows against the long-term benefits of loyalty and market stability. However, excessive credit leniency particularly in the absence of targeted credit risk assessment can jeopardize financial stability and increase exposure to bad debts. This is especially critical in industries with tight working capital cycles and high fixed operating costs.

The sharp increase in ACP during the pandemic also underscores the importance of adaptive credit monitoring systems. Firms without real-time data on customer solvency often resorted to uniform credit extensions, which in some cases exacerbated financial strain. In contrast, firms that applied selective credit policies extending terms to strategic clients while tightening policies for high-risk accounts were better positioned to withstand the downturn.

Receivables turnover and average collection have a simultaneous impact on profitability

When analyzed simultaneously, RTO and ACP were found to significantly influence profitability, although the adjusted R^2 of 20.9% indicates that other financial and macroeconomic factors also contribute. This finding supports the argument of Knauer & Wöhrmann (2013) that working capital optimization must be integrated with broader strategic goals, such as risk management and supply chain coordination. The results reaffirm that receivables management is not merely an operational metric but a critical component of strategic financial planning (Chen et al. 2025).

Overall, the findings demonstrate that flexible yet controlled credit policies can serve both financial and strategic purposes. While receivables turnover enhances operational efficiency, the deliberate extension of collection periods can safeguard customer relationships and stabilize sales, particularly in uncertain demand environments. This dual function supports the view of Ahmad et al. (2022) and Kiymaz et al. (2024), who argue that working capital elements must be managed dynamically in response to market signals and firm-specific conditions.

Strategic Credit Extensions During Crisis

The pandemic-induced increase in ACP, particularly in 2020, indicates that firms extended credit terms as a strategic response to customer liquidity constraints (Prajawati, 2022). While this policy temporarily reduced ROA, the recovery observed from 2021 onward reflected in shorter ACP and improved profitability suggests that firms regained control once market conditions stabilized. This finding aligns with Agarwal et al. (2022), who argue that tactical credit extensions during crises can foster customer loyalty, preserve market share, and ultimately enhance firm value during the recovery phase. Receivables management practices involve both internal measures and support from external parties (Garg & Singh, 2024). The adoption of this "strategic patience" reflects the trade-off between immediate profitability and long-term market positioning, a central tenet of the Trade-Off Theory (Myers, 1984).

Notably, businesses in the subsector of food and beverage which deal with perishable goods, showed distinctive patterns favoring quicker turnover despite credit flexibility. This reflects the sector-specific constraint to manage inventory turnover and avoid spoilage. It reinforces that receivables strategies are not uniform, but must be aligned with industry structure, customer profiles, and product characteristics. The following table presents credit policy strategies implemented under different economic conditions.

Table 7 presents a summary of strategic credit policy adjustments across three economic phases: pre-crisis, during crisis, and recovery. It highlights the evolving priorities of manufacturing firms in Indonesia as they responded to the financial challenges posed by the COVID-19 pandemic and adjusted their receivables strategies accordingly.

Pre-crisis phase (2018–2019): during this period, firms adopted strict credit controls with high receivables turnover (RTO) and low average collection periods (ACP). The main objective was to maximize operational efficiency and maintain strong liquidity positions. As a result, firms achieved high return on assets (ROA), reflecting the benefits of fast cash conversion cycles and minimal exposure to bad debt risks.

Crisis phase (2020): amid the peak of the pandemic, many firms responded to market disruptions by extending credit terms, leading to lower RTO and significantly higher ACP. This shift was a strategic decision to retain customers and preserve sales during a period of reduced demand and heightened uncertainty. Although this policy led to a temporary decline in ROA, it helped firms maintain business continuity and customer relationships.

Recovery phase (2021–2023): in the post-crisis period, firms began gradually tightening their credit policies. RTO improved and ACP shortened, reflecting efforts to rebalance liquidity and growth. Profitability also showed signs of recovery, with ROA steadily increasing. This phase illustrates how firms recalibrated their financial strategies to restore internal cash flows while maintaining customer goodwill established during the crisis.

Overall, Table 7 illustrates how credit policy served a dual purpose: as a financial tool to manage liquidity and as a strategic mechanism to support customer retention. The transitions across these phases demonstrate the practical relevance of Trade-Off Theory, where firms continuously weigh the costs of short-term profitability losses against the benefits of long-term market stability. The varied responses across sectors also indicate that credit strategies must be adapted to firm-specific and industry-specific conditions.

Managerial Implication

For financial managers, the findings highlight the need for dynamic receivables policies. During stable periods, a focus on efficient turnover and short collection cycles can maximize profitability. During economic shocks, however, selectively loosening credit terms can act as a buffer for customer retention, which may yield longer-term performance benefits. Managers should segment customers based on risk profiles and adopt differentiated credit policies accordingly.

For government and policymakers, the results underscore the importance of supporting firms with responsive financial instruments during economic disruptions. To help businesses manage liquidity while offering credit flexibility, the government should facilitate mechanisms such as credit guarantees, invoice financing, or emergency liquidity support, particularly for the manufacturing sector. These measures would enable firms to implement adaptive credit strategies without undermining their financial stability.

In addition, the promotion of digital credit assessment infrastructure, such as real-time monitoring systems for customer creditworthiness, should be prioritized to help firms make informed credit decisions based on actual risk exposure. Policymakers should also consider integrating working capital indicators, particularly receivables efficiency, into broader industrial development and recovery frameworks. Regulatory institutions like OJK and Bank Indonesia can play a proactive role in encouraging receivables-based financial innovations and ensuring that adaptive credit strategies are recognized as essential components of business resilience and national economic recovery.

Tabel 7. Strategic credit policy

Phase	Credit Policy	Goal	Outcome
Pre-Crisis	High RTO, Low ACP	Maximize efficiency	High ROA, tight liquidity
During Crisis	Low RTO, High ACP	Retain customers	Lower ROA, stable sales
Recovery	Gradual RTO increase	Balance liquidity & growth	ROA rebound + market share

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study concludes in the context of manufacturing companies in Indonesia, receivable turnover and collection periods are critical elements of financial strategy, especially during times of economic disruption. Higher receivables turnover supports firm profitability by improving liquidity and enabling faster reinvestment. In contrast, extended collection periods tend to reduce profitability by delaying cash conversion and increasing the risk of bad debts. However, in crisis contexts, extended credit terms can serve a strategic function, preserving customer relationships and enabling firms to maintain sales volumes when demand is fragile. Receivables management is not merely a back-office function but a strategic lever for resilience, competitiveness, and profitability.

Recommendations

This study is limited to secondary financial data from manufacturing firms listed on the Indonesia Stock Exchange between 2018 and 2023, which may not fully capture internal managerial decisions or qualitative aspects of credit policy adjustments. Furthermore, the analysis focuses only on receivables turnover and average collection period, while other financial and operational variables such as inventory dynamics, customer default risk, and macroeconomic shocks may also affect profitability but are not included in the model. To provide a more comprehensive view of the determinants of profitability, future research should consider including such financial and operational variables that may offer more nuanced insights into the interdependencies that affect firm performance.

FUNDING STATEMENT: This research did not receive any specific grant from the public, commercial, or not-for-profit funding agencies.

CONFLICTS OF INTEREST: The author declares no conflict of interest.

GENERATIVE AI STATEMENT: The author declares during the preparation of this work the authors used ChatGPT in order to check grammar and polish text. After using this tool/service, the authors reviewed and edited the content as needed and takes full responsibility for the content of the publication.

REFERENCES

Agarwal, M. K., Ma, Z., Park, C. H., & Zheng, Y. (2022). The impact of a manufacturer's financial liquidity on its market strategies and pricing and promotion decisions in retail grocery markets. Journal of Business Research, 142, 844–857. https://doi.org/10.1016/j.jbusres.2022.01.022

Ahmad, M., Bashir, R., & Waqas, H. (2022). Working capital management and firm performance: are their effects same in covid 19 compared to financial crisis 2008? Cogent Economics & Finance, 10(1). https://doi.org/10.1080/23322039.2022.2101224

Athira, A., Ramesh, V. K., & Sinu, M. (2024). COVID-19 pandemic and firm performance: An empirical investigation using a cross-country sample. IIMB Management Review, 36(3), 269–281. https://doi.org/10.1016/j.iimb.2024.07.002

Banerjee, R., Illes, A., Kharroubi, E., & Garralda, J. M. S. (2020). Covid-19 and corporate sector liquidity (No. 10). Bank for International Settlements.

Braimah, A., Mu, Y., Quaye, I., & Ibrahim, A. A. (2021). Working Capital Management and SMEs Profitability in Emerging Economies: The Ghanaian Case. Sage Open, 11(1). https://doi.org/10.1177/2158244021989317

Brigham, E., & Houston, J. (2019). Fundamentals of Financial Management (15th ed.). Cengage Learning.

Bruhn, M., Demirguc-Kunt, A., & Singer, D. (2023). Competition and firm recovery post-COVID-19. Small Business Economics, 61(4), 1555–1586. https://doi.org/10.1007/s11187-023-00750-w

Chen, L., Long, Y., Tang, X., & Wang, J. (2025). Can accounts receivable factoring restrain corporate financialization? Evidence from China. International Review of Economics & Finance, 98, 103928. https://doi.org/10.1016/j.iref.2025.103928

Detthamrong, U., & Chansanam, W. (2023). Do the trade credit influence firm performance in agro-industry? Evidence from Thailand. Heliyon, 9(3), e14561. https://doi.org/10.1016/j.heliyon.2023.e14561

Direktorat Statistik Industri. (2024). Perkembangan Indeks Produksi Industri Manufaktur 2023 Volume 13. https://assets.dataindonesia.id/2024/10/16/1729050806615-73-16.-perkembangan-indeks-produksi-industri-

manufaktur-2023.pdf

Echarte Fernández, M. Á., Náñez Alonso, S. L., Jorge-Vázquez, J., & Reier Forradellas, R. F. (2021). Central Banks' Monetary Policy in the Face of the COVID-19 Economic Crisis: Monetary Stimulus and the Emergence of CBDCs. Sustainability, 13(8), 4242. https://doi.org/10.3390/su13084242

Garg, M. C., & Singh, M. (2024). Does Working Capital Management Affect Financial Performance: Empirical Evidence of Indian Manufacturing Sector? Journal of Operations and Strategic Planning, 7(1), 48–64. https://doi.org/10.1177/2516600X241245808

Gitman, L., Zutter, C., Elali, W., & Roubaie, A. (2013). Principles of Managerial Finance. Pearson.

Hofmann, E., Töyli, J., & Solakivi, T. (2022). Working Capital Behavior of Firms during an Economic Downturn: An Analysis of the Financial Crisis Era. International Journal of Financial Studies, 10(3), 55. https://doi.org/10.3390/ijfs10030055

Huynh, T. X. T., Nguyen, T. T. H., & Nguyen, C. Van. (2025). The impact of working capital management on the financial performance of listed enterprises: an empirical evidence from Vietnam. Cogent Business & Management, 12(1). https://doi.org/10.1080/23311975.2025.2473033

Kiymaz, H., Haque, S., & Choudhury, A. A. (2024). Working capital management and firm performance: A comparative analysis of developed and emerging economies. Borsa Istanbul Review, 24(3), 634–642. https://doi.org/10.1016/j.bir.2024.03.004

Knauer, T., & Wöhrmann, A. (2013). Working capital management and firm profitability. Journal of Management Control, 24(1), 77–87. https://doi.org/10.1007/s00187-013-0173-3

KPMG. (2020). Working Capital Management in Times of Crisis. KPMG.

Kumar, S. S., Sawarni, K. S., Roy, S., & G, N. (2024). Influence of working capital efficiency on firm's composite financial performance: evidence from India. International Journal of Productivity and Performance Management, 73(9), 2787–2806. https://doi.org/10.1108/IJPPM-07-2023-0374

Myers, S. (1984). Capital Structure Puzzle. https://doi.org/10.3386/w1393

Pham, D. P. T., & Huynh, T. C. H. (2020). The Impact of Trade Credit Investment on Manufacturing Firms' Profitability: Evidence from Vietnam. Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis, 68(4), 775–796. https://doi.org/10.11118/actaun202068040775

Prajawati, M. I. (2022). SME Working Capital Strategy to Increase Profitability During The Covid-19 Pandemic. Journal of Economics, Finance And Management Studies, 05(05). https://doi.org/10.47191/jefms/v5-i5-05

Rey-Ares, L., Fernández-López, S., & Rodeiro-Pazos, D. (2021). Impact of working capital management on profitability for Spanish fish canning companies. Marine Policy, 130, 104583. https://doi.org/10.1016/j.marpol.2021.104583

Saputra, S., & Hendri, W. (2024). Economic Policy Uncertainty and Bank Credit Growth in Indonesia. Jurnal Manajemen Teori Dan Terapan| Journal of Theory and Applied Management, 17(1), 123–133. https://doi.org/10.20473/jmtt.v17i1.51312

Sari, T. A. M., & Ainun, Moh. B. (2024). Financial Resources and Firm Performance. Owner, 8(3), 2092–2102. https://doi.org/10.33395/owner.v8i3.2289

Shah, V. N. (2020). Impact of receivables management on profitability: A study on selected printing companies listed at BSE in India. A Global Journal of Interdisciplinary Studies, 3(2), 103–107.

Tarighi, H., Zimon, G., Sheikh, M. J., & Sayrani, M. (2024). The Impact of Firm Risk and the COVID-19 Crisis on Working Capital Management Strategies: Evidence from a Market Affected by Economic Uncertainty. Risks, 12(4), 72. https://doi.org/10.3390/risks12040072

Thorbecke, W. (2023). Sectoral evidence on Indonesian economic performance after the pandemic. Asia and the Global Economy, 3(2), 100069. https://doi.org/10.1016/j.aglobe.2023.100069

Wajo, Abd. R. (2021). Effect of Cash Turnover, Receivable Turnover, Inventory Turnover and Growth Opportunity on Profitability. Atestasi : Jurnal Ilmiah Akuntansi, 4(1), 61–69. https://doi.org/10.57178/atestasi.v4i1.165