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Working Capital Management Impacts on Consumer Cyclical Retail Firm's Financial Performance

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Abstrak. As the world has faced many economic crises and periods of instability, an appropriate strategy is needed to maintain sustainability and enhance the resilience of firms. The purpose of this study is to determine the impact of working capital management on the financial performance of consumer cyclical retail firms listed on the Indonesia Stock Exchange during the 2021–2024 period, with firm size as a moderating variable. As a quantitative study with a causal-associative approach, this research employed the Moderated Regression Analysis model using panel data. The samples used in this study were derived from secondary data through purposive sampling, resulting in 52 data observations. The results show that WCM practices, as measured by CCC, have a significant negative influence on ROA. In addition, WCM policies measured by WCIP have a significant positive influence on ROA, while WCFP has a significant negative influence on ROA. This study also found that firm size has a significant moderating effect on both the CCC–ROA relationship and the WCFP–ROA relationship. Thus, this study recommends the optimalization of WCM practices in day-to-day operations by improving the efficiency of its components. It is also recommended to adopt a conservative investment policy approach to ensure operational stability. On the other hand, large firms are advised to adopt an aggressive financing policy, while small firms should adopt a conservative approach to maximize profitability.
Keywords: working capital manegement, retail, consumer cyclical, cash conversion cycle, current assets to total assets ratio, current liabilities to total assets ratio.

INTRODUCTION

In recent years, the world economy has experienced heightened uncertainty. The occurrence of various crises, such as the COVID-19 pandemic—which is considered the worst recession since the Great Depression—the Russia-Ukraine conflict, the rise in the global inflation rate, and the imposition of tighter monetary policies by many central banks, has led to a sharp decline in economic growth, a surge in commodity prices, an increase in borrowing rates, exchange rate fluctuations, and a decrease in people's purchasing power (OECD, 2021; United Nations, 2024). As a result, one of the sectors most affected by this global economic instability is the retail trade sector (Kumar, 2023; Milewska, 2022; Nguyen-Thi-Huong, 2025). On the demand side, Dekimpe and Van Heerde (2023) found a change in consumer behavior that prioritizes spending on basic necessities and postpones spending on non-essential goods, thus reducing the profit margins of retail companies in their efforts to adapt to high input costs. On the supply side, Alessandria et al. (2023) identified disruptions in the retail supply chain that increased logistics costs and lengthened delivery times from suppliers, causing more frequent stockouts, especially for imported goods. In Indonesia, this impact is reflected in the percentage growth rate of net profit of issuers in the retail trade subsector of non-primary consumer goods which, although it increased from -5,578.48% in 2020 to -106.22% in 2021 and 151.55% in 2022, decreased again to -18.43% and 5.49% in 2023 and 2024. Thus, as companies whose demand is closely related to economic growth, firms in this subsector require the right strategy to maintain business sustainability and

strengthen their resilience in the face of economic uncertainty.

In assessing the sustainability prospects of a business, profit or profitability is often used as one of the main indicators. Profitability is generally calculated by the Return on Assets (ROA) ratio, which reflects the company's managerial effectiveness or ability to use its assets efficiently to generate profits over time (Dabaghia et al., 2025). Several previous studies have found that this level of profit is influenced by various factors, one of which is working capital management (WCM), which exhibits an inverse U-shaped relationship between the level of working capital invested and company profitability, indicating that the relationship between the two is linear only up to an optimal point, beyond which further investment has a negative impact on profitability (Anton & Nucu, 2021; Jaworski & Czerwonka, 2022). For this reason, an appropriate WCM strategy is needed to achieve effective working capital management through an optimal balance between the liquidity required and the profitability desired by the company, thereby avoiding the risk of overinvestment that reduces profitability due to a large amount of unproductive investment, as well as underinvestment that disrupts company operations because it reduces liquidity under limited funds (Roy et al., 2025; Sogomi et al., 2024). This is supported by several previous studies that found WCM has a significant impact on increasing corporate profitability in various industries (Almomani et al., 2021; Cosima et al., 2025; Hidayat et al., 2025; Mandipa & Sibindi, 2022), including in companies in both developed and developing countries (Kiymaz et al., 2024) and in the pre-pandemic period as well as during the pandemic (Demiraj et al., 2022). WCM is also one of the important factors in retail companies due to their characteristics of high inventory turnover, seasonal fluctuations, and dependence on consumer demand (Ramadan & Morshed, 2023).

WCM is one of the company's efforts to administer, control, and manage its current assets and short-term liabilities in order to maximize profitability while maintaining an adequate level of liquidity (Wassie, 2021). In this study, WCM is assessed from two perspectives, namely WCM practices and WCM policies. According to Cosima et al. (2025), WCM practices include the management of working capital components, namely cash, inventory, accounts receivable, and accounts payable, which reflect the operational efficiency of working capital and are generally calculated using the Cash Conversion Cycle (CCC). As stated by Jaworski and Czerwonka (2022), the main characteristic of current assets and short-term liabilities is their constant turnover, which makes WCM a framework that shapes the conversion period between current assets, cash, and short-term liabilities. Therefore, it is necessary to ensure that this turnover runs smoothly with adequate cash support and proper management of each working capital component in appropriate amounts (Huan & Huy, 2020; Kiymaz et al., 2024). On the other hand, WCM policy is a form of working capital management that reflects the strategic decisions taken by the company with regard to the working capital investment policy (WCIP), related to the allocation of funds to various types of company assets to deal with the trade-off between risk and the rate of return, and the working capital funding policy (WCFP), related to determining the appropriate source of funding for working capital (Addin Al-Mawsheki, 2022; Almomani et al., 2021; Tarighi et al., 2024).

First, CCC as a form of WCM practice is the most commonly used indicator for calculating the efficiency of working capital component management. According to Baker et

al. (2023), the calculation of the conversion period of the working capital components is reflected in three activity ratios: days sales outstanding (DSO), which measures the period between sales and receipt of payment; days inventory on hand (DIO), which measures the length of time inventory is held; and days payables outstanding (DPO), which measures the time taken to pay suppliers. The integration of these three ratios is then used as the basis for calculating the CCC. A long CCC period indicates inefficient WCM practices because a large amount of cash is tied up over a long period, limiting the company's ability to reinvest and increasing liquidity risk, thereby reducing profitability, while a shorter period indicates efficient WCM practices because rapid cash turnover allows the company to enjoy better cash flow and thus increase profitability (Elfeituri & Alfitouri, 2025). Previous research by Jaworski and Czerwonka (2022), Johan et al. (2024), and Liu et al. (2024) found that CCC is significantly inversely related to firm performance, whereby firms with longer CCC periods experience lower profitability. Similarly, the research of Eldomiaty et al. (2023) shows that optimizing the CCC components significantly increases ROA, and the research of Kouaib and Bu Haya (2024) states that optimization of the CCC components can be achieved by shortening the inventory conversion period and the receivables collection period and by delaying payments to creditors, in other words by shortening the CCC period. Thus, the first hypothesis of this study is that the length of the Cash Conversion Cycle period has a significant influence on the company's ROA.

Second, WCIP as a type of WCM policy refers to the level of a company's investment in current assets, such as cash, inventory, and receivables, which is generally calculated using the ratio of current assets to total assets (CATA) (Liu et al., 2024; Vo & Ngo, 2023). This policy approach can be categorized into an aggressive approach, indicated by a smaller CATA ratio, and a conservative approach, indicated by a larger CATA ratio. Almomani et al. (2021) stated that the aggressive approach to WCIP emphasizes low investment in current assets to increase profitability by investing more in asset types with higher returns, but with limited liquidity and higher working capital risk. In contrast, Farhan et al. (2021) explained that the conservative approach to WCIP emphasizes high investment in current assets to increase sales by ensuring smooth business operations and strong customer relationships, albeit with high maintenance costs that can reduce profitability. Nonetheless, several previous studies have found that implementing a conservative approach to WCIP has a significant positive impact on company profitability (Ahmad et al., 2022; Liu et al., 2024). This is supported by research by Farhan et al. (2021) and Shrestha (2023), who concluded that companies need to invest more in current assets by increasing inventory levels and trade credit to reduce adverse risks and increase profitability. Research by Anh et al. (2024) also found that CASA has a positive impact on ROA and helps mitigate negative effects during crises, and recommends adjusting the CATA strategy by ensuring that investments in current assets are flexible enough to meet liquidity needs without increasing risk. Thus, the second hypothesis of this study is that Working Capital Investment Policy has a significant influence on the company's ROA.

Furthermore, WCFP as the second type of WCM policy refers to the level of short-term liabilities that companies choose to use to finance current assets, which is generally calculated using the ratio of short-term liabilities to total assets (CLTA) (Addin Al-Mawsheki, 2022; Roy et al., 2025). The approach to this policy can be categorized into an aggressive

approach, indicated by a larger CLTA ratio, and a conservative approach, indicated by a smaller CLTA ratio. The aggressive approach to WCFP emphasizes the use of short-term liabilities to finance current assets in order to increase profitability by reducing financing costs through lower interest expenses, but it increases liquidity and refinancing risks due to shorter repayment periods (Tarighi et al., 2024). In contrast, the conservative approach to WCFP emphasizes the use of long-term liabilities in financing current assets to maintain the company's financial stability and reduce liquidity risk due to longer repayment periods, but with higher interest expenses that reduce profitability (Habib & Dalwai, 2023). Nonetheless, several previous studies have found that a conservative approach to WCFP has a negative impact on company profitability (Ahmad et al., 2022; Wichitsathian, 2022). This is supported by research by Farhan et al. (2021) and Liu et al. (2024), which consistently shows that a company's financial performance can be improved by minimizing the use of short-term liabilities in financing its operating activities. Furthermore, research by Mahmood et al. (2024) also shows that there is an inverse U-shaped relationship between WCFP and corporate profitability and suggests the use of a conservative approach to WCFP during global recessions, including in years with high GDP growth, low interest rates, and/or low inflation rates, to maximize company profitability. Thus, the third hypothesis of this study is that Working Capital Financing Policy has a significant influence on the company's ROA.

In addition to measuring WCM with the above variables, there is also one firm-specific factor that plays an important role in determining the level of working capital of a company, namely firm size. The size of a company not only indicates its capacity to manage available resources, but also its ability to adapt to market changes and utilize economies of scale to maximize profitability (Shabihah & Rusdi, 2025). Baker et al. (2023) mentioned that working capital requirements increase as companies grow in size, as larger firms tend to have more diversified operations and better access to capital markets, while smaller firms tend to face more financial constraints due to higher financing costs and limited options. Previous research by Dalci et al. (2019) and Pervaiz & Akram (2019) found that the relationship between CCC and company profitability is moderated by company size, where the smaller the company size, the greater the negative impact of CCC on ROA, and they recommend reducing CCC duration in small and medium-sized companies to increase profitability. The moderating role of firm size was also found by Mahmood et al. (2024) in the relationship between WCFP and profitability, where the smaller the company, the lower the optimal point, thus recommending a conservative approach to WCFP for small firms and the opposite for large firms. Thus, the fourth and fifth hypotheses in this study are that Firm Size moderates the influence of the Cash Conversion Cycle on the company's ROA and Firm Size moderates the influence of Working Capital Financing Policy on the company's ROA.

WCM has been widely researched globally and is considered one of the important factors in determining a company's financial performance. Nevertheless, mixed results have been found regarding the relationship between WCM and company performance. Research conducted by Wichitsathian (2022), Johan et al. (2024), and Kiymaz et al. (2024) on cross-industry companies found a significant negative relationship between CCC and company profitability. In contrast, research conducted by Wassie (2021), Lewliyadda & Subasinghe (2023), and Stavropoulos & Zounta (2025) found a significant positive relationship between CCC and the profitability of service-oriented firms, while several other studies have found an

insignificant relationship between CCC and profitability, such as the research of Shrestha (2023) and Anh et al. (2024) on non-financial firms. This occurs because the relationship between CCC and company profitability is influenced by the type of industry and GDP growth rate in which the company operates, as well as several other factors such as endogeneity issues, changes in the macroeconomic environment, economic crises, economic development status, corporate governance, and financial constraints (Chang, 2018; Jaworski & Czerwonka, 2022). In addition, previous research related to the influence of WCM policies on company profitability has generally still been conducted on cross-industry companies, such as the studies of Ahmad et al. (2022), Wichitsathian (2022), and Shrestha (2023), which found that WCIP has a significant positive relationship with ROA because it is considered to increase sales and revenue, while WCFP has a significant negative relationship with ROA due to generally higher interest costs on short-term debt. This study addresses this research gap by focusing on the influence of WCM practices and policies on the profitability of the retail subsector of the non-primary consumer goods sector in Indonesia as one of the emerging markets. In addition, this study also provides new evidence on the moderating impact of firm size on the relationship between WCM and company profitability in this subsector.

As a link between producers and end consumers, the retail industry not only forms a large supply chain to meet people's needs, but also serves as the main driver of household consumption, which accounts for more than 50% of Indonesia's gross domestic product (GDP). For this reason, the right strategy is needed, one of which is the implementation of effective WCM. This is important considering that companies in the retail non-primary consumer goods sector are sensitive to fluctuations in demand and economic growth, so the balance between liquidity and profitability is a crucial factor in maintaining the company's operational efficiency and financial performance. Therefore, this study aims to determine the impact of WCM on the financial performance of non-primary consumer goods retail trading companies listed on the IDX, with company size as a moderating variable, to provide new empirical evidence and practical insights for decision-making and improving companies' financial resilience.

This research is expected to provide both theoretical and practical benefits. Theoretically, this study contributes to the body of knowledge on working capital management by providing empirical evidence on the relationship between WCM practices and policies and firm profitability within the context of the consumer cyclical retail sector in an emerging market. Practically, the findings offer valuable insights for financial managers and decision-makers in retail companies to optimize their working capital strategies, balancing liquidity and profitability to enhance financial performance and resilience during economic uncertainty. Additionally, the results can serve as a reference for investors and creditors in assessing the financial health and management effectiveness of retail firms, as well as for policymakers in designing supportive regulations for the retail sector.
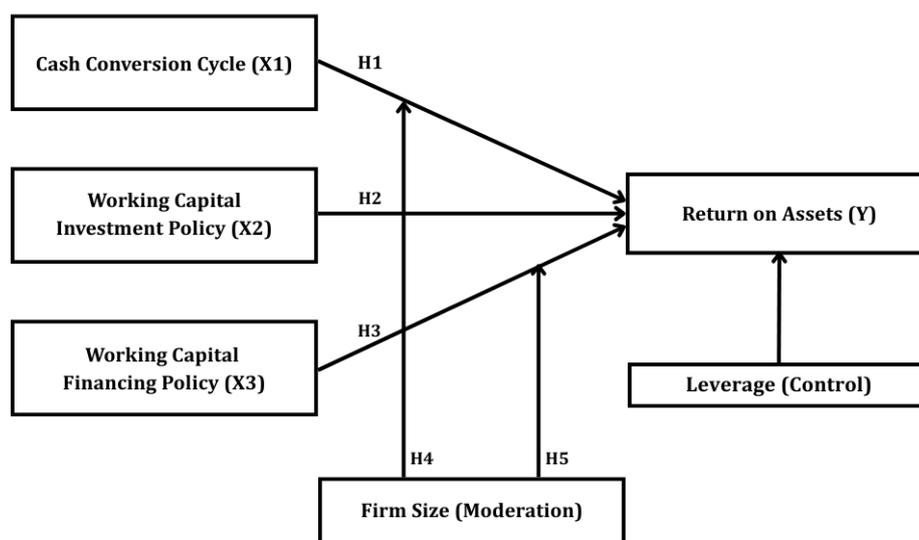
Figure 1. Conceptual Framework
Source: Research data processing (2025)

MATERIALS AND METHODS

This study uses a quantitative research design with a causal associative research type to examine the impact of working capital management (WCM) on return on assets (ROA) as an indicator of the company's financial performance with company size as a moderation variable. According to Saunders et al. (2019), the design of quantitative research tests the relationships between variables that are measured numerically and analyzed using various statistical and graphical techniques. According to Sugiyono (2020), the type of causal associative research is research that aims to examine the relationship between causal variables. The variables and calculations used in this study can be seen in Table 1.

Table 1. Variable and Measurement

Variabel	Formula	References
Cash Conversion Cycle (X1)	$DIO + DSO - DPO$	(Baker et al., 2023)
	$DIO = \dfrac{Average\ Inventory}{Cost\ of\ Goods\ Sold}\ x\ 365$	(Baker et al., 2023; Brigham & Houston, 2019; Vo & Ngo, 2023)
	$DSO = \dfrac{Average\ Accounts\ Receivables}{Sales}\ x\ 365$	
	$DPO = \dfrac{Average\ Accounts\ Payables}{Cost\ of\ Goods\ Sold}\ x\ 365$	
Working Capital Investment Policy (X2)	$\dfrac{Current\ Assets}{Total\ Assets}$	(Addin Al-Mawsheki, 2022; Liu et al., 2024; Roy et al., 2025)
Working Capital Financing Policy (X3)	$\dfrac{Current\ Liabilities}{Total\ Assets}$	(Addin Al-Mawsheki, 2022; Liu et al., 2024; Vo & Ngo, 2023)
Firm Size (Moderation)	$Ln\ (Total\ Assets)$	(Shabihah & Rusdi, 2025)

Leverage (Control)	$\dfrac{Total\ Liabilities}{Total\ Equity}$	(Elfeituri & Alfitouri, 2025; Mahmood et al., 2024)
Return on Assets (Y)	$\dfrac{Net\ Income}{Total\ Assets}$	(Baker et al., 2023)

Source: Compiled from various sources (2025)

Furthermore, the population used for this study includes all companies classified as retail trade subsector companies under the non-primary consumer goods sector or non-primary consumer goods listed on the IDX in 2024 with a total of 31 companies. From this population, the research sample to be taken is determined using the purposive sampling technique, which is a sampling method without probability that selects a sample based on predetermined criteria according to the research focus (Memon et al., 2025). The sample criteria to be used are companies that are listed on the Indonesia Stock Exchange in the observation period (2021 – 2024), publish audited financial statements, record net profit during the observation period, and have experienced a decrease in net profit at least once during the observation period. Based on this criterion, there are 13 companies that qualify as samples with a total of 52 observation data.

Table 2. Sample Collection Criteria Description.

No.	Criteria	Rejected	Accepted
1.	Retail trade subsector companies in the non-primary consumer goods sector listed on the IDX during the observation period (2021 – 2024)	-	31
2.	Companies that publish audited financial statements	8	23
3.	Companies that have *net income*	9	14
4.	Companies that have experienced a decrease in net profit during the observation period	1	13
Number of companies that qualify as a sample			13
Number of observation data (13 companies x 4 years)			52

Source: Secondary data processed (2025)

Data analysis was carried out using panel data regression analysis techniques and Moderated Regression Analysis (MRA) using Stata 19 software to test the direct influence of WCM on company profitability and the indirect influence of the effect of company size moderation on the relationship between WCM and profitability. In addition, leverage is also used as a commonly used control variable because the use of debt financing has the power to influence the risk profile and outcomes related to working capital management, liquidity, operational flexibility, and the financial performance of the company (Sogomi et al., 2024). Furthermore, the MRA equation model used in this study corresponds to the model according to Park & Yi (2022) can be noted as follows:

$$Y_{it} = \beta_0 + \beta_1 X1_{it} + \beta_2 X2_{it} + \beta_3 X3_{it} + \beta_4 M_{it} + \beta_5 (X1 * M)_{it} + \beta_6 (X3 * M)_{it} + \beta_7 + \varepsilon_{it}$$

where y represents the value of the dependent variable i represents its company, t represents the year, β_0 represents the intercept, β_n represents the regression coefficient, X represents the value of the independent variable, M represents the value of the moderator variable, and ε represents the term error. Furthermore, to ensure accurate and reliable results,

several test stages were carried out which included determining the estimation model to ensure the suitability of the use of fixed effect models, classical assumption tests, model suitability tests, and moderation regression analysis tests to test hypotheses.

RESULTS AND DISCUSSION

Table 3 below shows the descriptive statistics of all variables used in this study. Based on the table, the average ROA of 6.0% with a standard deviation of 3.7% indicates that this subsector has a low and relatively similar rate of return on assets between companies. The average CCC period of the subsector is 99 days with a standard deviation of 112 days due to the characteristics of the industry in various subsectors, ranging from the consumer goods distributor industry, internet and homeshop retail, department stores, and several types of specialty retail. Furthermore, the average WCIP of 60.3% with a standard deviation of 11.6% indicates the implementation of the WCIP's conservative approach in the form of investing in a large amount of current assets to ensure the company's liquidity. Likewise, WCFP has an average of 29.6% with a standard deviation of 12.6% which shows the application of the conservative approach of WCFP and emphasizes the use of long-term liabilities in financing its current assets. Furthermore, the company's SIZE or size has an average of 29.11 with a standard deviation of 1.21 indicating a relatively similar size between companies, while LEV or leverage has an average of 0.98 with a standard deviation of 0.75 indicating a company's funding structure funded through debt and liabilities in a relatively balanced manner, but with large variations between companies.

Table 3. Descriptive Statistics

Variables	Mean	Std. Dev.	Min	Max
LENGTH	0.060	0.037	0.005	0.158
CCC	98.95	111.63	-31.25	357.46
WCIP	0.603	0.116	0.308	0.866
WCFP	0.296	0.126	0.056	0.547
SIZE	29.11	1.21	26.70	31.02
LEV	0.981	0.753	0.222	7.585

Source: Secondary data processed with Stata (2025)

In determining the appropriate estimation model for the three regression models used in this study, an estimation method selection test consisting of the Chow test and the Hausman test was carried out. Based on the results listed in Table 4, the most suitable estimation method to be used in analyzing the regression model in this study is the Fixed Effect Model.

Table 4. Estimation Model Selection Test

Test Type	Prob.	Result	Selected Model
Chow test	0.0023	Prob < 0.05, H0 rejected	*Fixed Effect Model*
Lagrange Multiplier Test	0.4303	Prob > 0.05, H0 accepted	*Pooled OLS*
Hausman Test	0.0028	Prob < 0.05, H0 rejected	*Fixed Effect Mode*

Source: Secondary data processed with Stata (2025)

Furthermore, in the use of *fixed effect estimation models* in data panel regression, the series of classical assumption tests that need to be carried out consist of heteroskesdasticity

tests and multicollinearity tests. As stated in Table 5, the results of the multicollinearity test conducted with an average value of *variance inflating factor* (VIF) have a value of more than 10 so that it is indicated to experience high multicollinearity and needs to be transformed by data. Likewise, the results of the heteroscedasticity test carried out by *the modified wald test*, a probability value of less than 0.05 indicates that there is heteroscedasticity or unevenness of variance over residual in the distribution of data, so it is necessary to use equations with *robust standard errors* to overcome it.

Table 5. Classical Asumption Test

Test Type	Qualification	Result	Conclusion	
Multicollinearity Test	Mean VIF < 10	841.50	Not passing the multicollinearity test	
Heteroscedasticity Test (*Modified Wald Test*)	Prob > 0.05	0.0000	Not passing the heteroscedasticity test	

Source: Secondary data processed with Stata (2025)

Data transformation to overcome the problem of multicollinearity in this study was carried out by *mean-centering* on variables with a VIF value of >10. As stated in Table 6, the average value of VIF after *mean-centering* is 2.50 so that it passes the multicollinearity test and the data can be used.

Table 6. Multicollinearity Test

Variables	VIF (not centered)	VIF (centered)
CCC	1105.62	2.80
WCIP	47.88	2.22
WCFP	1815.50	1.47
SIZE	64.38	2.83
CCC*SIZE	1082.54	4.58
WCFP*SIZE	1768.36	1.80
LEV	6.21	1.80
Mean VIF	841.50	2.50

Source: Secondary data processed with Stata (2025)

In terms of model feasibility as stated in Table 7, the value of the multiple determination coefficient or *adjusted R-squared* of this equation shows a figure of 0.6690 which means that 66.90% of the ROA variation can be explained by the independent variables used in the model. The *F-statistical* probability value or F-test in this equation is 0.000 which indicates that all independent variables, including control variables, simultaneously have a significant influence on ROA. Thus, this model can be used statistically to explain the relationship of independent variables to dependent variables.

Table 7. Model Summary

Model	R-Squared	Adj. R-Squared	Root MSE	Prob. F-Statistic
Model 1	0.7958	0.6690	0.0214	0.0000

Source: Secondary data processed with Stata (2025)

Furthermore, regression analysis was carried out using *the fixed effect* estimation method with *robust standard errors* and the data that had been *mean-centered* with the results as shown in Table 8.

Table 8. Regression Result

Variables	Coefficient	t. statistics	P>|t|	Result	Hypothesis Conclusion
Constant	0.0823	9.39	0.000	-	-
CCC	-0.0012	-2.79	0.018	Significant	H1 Accepted
WCIP	0.3472	2.43	0.034	Significant	H2 Accepted
WCFP	-0.3166	-3.19	0.009	Significant	H3 Accepted
SIZE	0.0855	2.70	0.021	Significant	-
CCC*SIZE	-0.0006	-2.92	0.014	Significant	H4 Accepted
WCFP*SIZE	-0.2349	-4.99	0.000	Significant	H5 Accepted
LEV	-0.0036	-0.54	0.598	Not Significant	-

Source: Secondary data processed with Stata (2025)

Based on the results of the regression analysis above, the equation of moderation regression analysis in this study is as follows:

$$ROA = 0.0823 - 0.0012 CCC + 0.3472\ WCIP - 0.3166 WCFP + 0.0855 SIZE$$
$$- 0.0006(CCC * SIZE) - 0.2349(WCFP * SIZE) - 0.0036 LEV + \varepsilon$$

The results of the regression analysis show that the value of the constant coefficient of this equation is 0.0823, which indicates that the ROA value is 0.0823 if all other variables are constant or fixed. Furthermore, the first independent variable, CCC, shows a p-value of 0.018 with a negative coefficient of -0.0012, indicating that CCC has a significant negative influence on ROA, so H1 is accepted. The second independent variable, WCIP, has a p-value of 0.034 with a positive coefficient of 0.3472, which indicates that WCIP has a statistically significant positive influence on ROA, so H2 is accepted. The last independent variable, WCFP, shows a p-value of 0.009 with a negative coefficient of -0.3166, indicating that WCFP has a significant negative influence on ROA, so H3 is accepted. The LEV control variable has a p-value of 0.598 with a coefficient of -0.0036, which shows that LEV has a negative influence on ROA, but it is not statistically significant.

The results of the regression analysis in Table 7 also show the effect of SIZE moderation on two independent variables, namely CCC and WCFP. First, the SIZE variable has a p-value of 0.021 with a positive coefficient of 0.0789, which indicates that SIZE has a significant positive influence on ROA. Furthermore, the results of the regression analysis of the moderating effect of SIZE on the impact of CCC on ROA can be seen in the interaction variable of CCC with SIZE, which has a p-value of 0.014 with a negative coefficient of -0.0006, indicating that SIZE moderates the relationship between the two by weakening the impact of CCC on ROA, so H4 is accepted. Finally, the results of the regression analysis related to the moderating effect of SIZE on the impact of WCFP on ROA show that the interaction variable of WCFP with SIZE has a p-value of 0.0000 with a negative coefficient of -0.2349, which indicates that SIZE moderates the relationship between the two by weakening the impact of WCFP on ROA, so H5 is accepted. In both relationships, SIZE serves as a quasi-moderator, i.e. a variable that not only has a direct effect on the dependent variable ROA, but also interacts directly with the other independent variables, CCC and

WCFP.

The results of this study show that CCC has a significant negative influence on the profitability of the company as measured by ROA and that the first hypothesis is accepted. These findings confirm that the longer the CCC period, the more inefficient the company is in managing its working capital components. This decrease in efficiency occurs because the longer it takes a company to convert its working capital into cash, the higher the inventory maintenance costs and the greater the liquidity risk. Liquidity risk due to the large amount of corporate cash tied up in working capital will reduce the company's flexibility in reinvesting and in providing cash reserves to face operational uncertainty and other external shocks. As a result, the company's ability to generate profits from its assets decreases. These results are consistent with previous studies conducted by Ahmad et al. (2022), Demiraj et al. (2022), Jaworski & Czerwonka (2022), Kiymaz et al. (2024), and Liu et al. (2024), who also found a significant negative association between CCC and ROA.

The results of the study on the next independent variable, namely WCIP, show a significant positive influence on ROA and the second hypothesis of this study is accepted. These findings indicate that increased investment in current assets will increase the ability of a company's assets to generate profits. This occurs because, in companies in the retail trade subsector of non-primary consumer goods, a large amount of investment in current assets reflects the company's strategy to strengthen liquidity by maintaining adequate inventory and cash availability to support smooth operations and address fluctuating consumer demand that is sensitive to economic conditions. The use of a conservative approach to WCIP allows companies to optimize sales activities by minimizing operational disruptions and improving relationships with customers, thereby increasing sales and ultimately enhancing profitability. These results are in line with research conducted by Ahmad et al. (2022), Shrestha (2023), and Liu et al. (2024), who also found that WCIP has a significant positive influence on profitability in companies applying a conservative WCIP approach.

The results for the last independent variable, WCFP, show that WCFP has a significant negative influence on ROA and the third hypothesis is accepted. These findings confirm that the greater the use of short-term liabilities in financing current assets, the lower the company's ability to generate profits through its assets. This is because, although financing costs are reduced through lower interest expenses, the use of short-term obligations increases liquidity and refinancing risks due to limited repayment periods. As a result, the company's flexibility to improve operational efficiency is constrained, especially in the retail trade subsector of non-primary consumer goods, which is characterized by intense price competition, pressure on profit margins, and more volatile demand. These results are consistent with previous research by Ahmad et al. (2022), Farhan et al. (2021), Liu et al. (2024), and Wichitsathian (2022), which also found that WCFP calculated with CLTA has a significant negative influence on company profitability.

Furthermore, the results of the regression analysis show that SIZE is proven to moderate the impact of CCC on ROA, so the fourth hypothesis is accepted. This indicates that an increase in firm size significantly weakens the negative influence of CCC on ROA. Larger companies are more resilient to inefficiencies in working capital practices because they have a better capacity to manage CCC through more efficient operations, higher financial flexibility with wider access to funding sources and stronger bargaining power with

suppliers and distributors, as well as more structured planning and management systems. As a result, the decline in ROA is smaller compared to that of smaller companies. In this case, firm size is classified as a quasi-moderator because it not only has a direct effect on ROA, but also affects the relationship between CCC and ROA. The results of this study are consistent with the research of Dalci et al. (2019), Pervaiz & Akram (2019), Zalaghi et al. (2019), Fransisca et al. (2023), and Rakhmawati et al. (2024), which found that firm size moderates the relationship between CCC and company profitability.

Finally, the results of the regression analysis show that SIZE moderates the impact of WCFP on ROA, so the fifth hypothesis of the study is accepted. This indicates that firm size significantly weakens the negative influence of WCFP on profitability, or in other words, the larger the company, the smaller the decrease in ROA due to the increased use of short-term obligations to finance current assets. This is due to the economies of scale enjoyed by large companies in the form of a better capital market reputation and stronger bargaining power, which enable them to reduce financing costs through lower interest expenses. Large companies can also minimize liquidity risk through diversification of financing instruments and better management of short-term liability maturities because they have more financing options. In this case, firm size acts as a quasi-moderator because it can affect the dependent variable, ROA, both directly and indirectly through interaction with other independent variables, namely WCFP. This result supports the fifth hypothesis and is consistent with the findings of Panda & Nanda (2018) and Mahmood et al. (2019), who found that in large companies, an increase in the use of short-term liabilities to finance current assets can, up to a certain point, increase company profitability.

CONCLUSIONS

The results of the study on the influence of WCM on the financial performance of non-primary consumer goods retail companies in Indonesia show that the practice of WCM calculated using CCC has a significant negative influence on ROA. In addition, it was also found that the first WCM policy, namely WCIP calculated using CATA, has a significant positive influence on ROA, while the second WCM policy, namely WCFP calculated using CLTA, has a significant negative influence on ROA. Furthermore, firm size was also found to moderate by weakening not only the influence of CCC on ROA, but also the influence of WCFP on ROA. Based on the findings of this study, companies are expected to focus WCM on optimizing the efficiency of their working capital management practices. This can be done by reducing the CCC period through accelerating receivables collection and implementing more efficient inventory management, especially for small companies. In terms of working capital investment policies, companies must manage investments in their current assets at an adequate level to support operational stability and financial flexibility, thus suggesting the use of a conservative approach to WCIP. Similarly, in terms of working capital funding policy, companies must manage their short-term financing structure by establishing good relationships with suppliers without relying excessively on short-term liabilities, especially for smaller companies, thus recommending a conservative funding policy approach for small firms and an aggressive funding policy approach for large firms. However, this study still has several limitations. Therefore, further research is suggested to include the use of ROE or Tobin's Q as alternative measures of profitability, as well as to add additional moderating

factors such as economic conditions or industry characteristics to obtain a more comprehensive understanding. In addition, the use of a nonlinear approach or a dynamic panel model can also be considered to better capture the inverse U-shaped relationship between WCM and company profitability.

REFERENCES

Addin Al-Mawsheki, R. M. S. (2022). Effect of working capital policies on firms' financial performance. *Cogent Economics & Finance, 10*(1), 1–16. https://doi.org/10.1080/23322039.2022.2087289

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

Alessandria, G., Khan, S. Y., Khederlarian, A., Mix, C., & Ruhl, K. J. (2023). The aggregate effects of global and local supply chain disruptions: 2020–2022. *Journal of International Economics, 146*, 103788. https://doi.org/10.1016/j.jinteco.2023.103788

Almomani, T. M., Almomani, M. A., & Obeidat, M. I. (2021). The relationship between working capital management and financial performance: Evidence from Jordan. *Journal of Asian Finance, Economics and Business, 8*(6), 713–720. https://doi.org/10.13106/jafeb.2021.vol8.no6.0713

Anh, H. T. V., Thi, H., & Nghiem, N. (2024). Working capital and financial performance: Comparing the COVID-19 pandemic and the 2008 economic meltdown in Vietnam. *Proceedings of the 21st Asian Academic Accounting Association (FourA) Annual Conference 2024.*

Anton, S. G., & Nucu, A. E. A. (2021). The impact of working capital management on firm profitability: Empirical evidence from the Polish listed firms. *Journal of Risk and Financial Management, 14*(9). https://doi.org/10.3390/jrfm14010009

Baker, H. K., Filbeck, G., & Barkley, T. (2023). *Working capital management: Concepts and strategies*. World Scientific Publishing Co. https://doi.org/10.1142/9789811259661_fmatter

Brigham, E. F., & Houston, J. F. (2019). *Fundamentals of financial management* (15th ed.). Cengage Learning.

Chang, C. (2018). Cash conversion cycle and corporate performance: Global evidence. *International Review of Economics & Finance, 56*, 568–581. https://doi.org/10.1016/j.iref.2017.12.014

Cosima, T., Ahmed, E. M., & Elfaki, K. E. (2025). Working capital management impact on Zimbabwe's listed consumer services firms' profitability and the influence of external factors via governance policy. *Quality & Quantity*. https://doi.org/10.1007/s11135-025-02250-3

Dabaghia, M. N., Al-Daoud, K. I., Mohammad, S. I. S., Alqudah, H., Al-Junaidi, A. M. F., Ghafour, R. A., Vasudevan, A., & Hunitie, M. F. A. (2025). Financial performance drivers: A focus on working capital practices in Jordanian tourism companies. *Journal of Posthumanism, 5*(3), 1056–1074. https://doi.org/10.63332/joph.v5i3.855

Dalci, I., Tanova, C., Ozyapici, H., & Bein, M. A. (2019). The moderating impact of firm size on the relationship between working capital management and profitability. *Prague Economic Papers, 28*(3), 296–312. https://doi.org/10.18267/j.pep.681

Dekimpe, M. G., & van Heerde, H. J. (2023). Retailing in times of soaring inflation: What we know, what we don't know, and a research agenda. *Journal of Retailing, 99*(3), 322–336. https://doi.org/10.1016/j.jretai.2023.07.002

Demiraj, R., Dsouza, S., & Abiad, M. (2022). Working capital management impact on

profitability: Pre-pandemic and pandemic evidence from the European automotive industry. *Risks, 10*, 236. https://doi.org/10.3390/risks10120236

Eldomiaty, T., Eid, N., Taman, F., & Rashwan, M. (2023). An assessment of the benefits of optimizing working capital and profitability: Perspectives from DJIA30 and NASDAQ100. *Journal of Risk and Financial Management, 16*(5), 274. https://doi.org/10.3390/jrfm16050274

Elfeituri, H., & Alfitouri, T. (2025). Working capital management, COVID-19, and profitability of UK retail firms. *Corporate Ownership & Control, 22*(2), 75–83. https://doi.org/10.22495/cocv22i2art7

Farhan, N. H. S., Almaqtari, F. A., Al-Matari, E. M., Senan, N. A. M., Alahdal, W. M., & Hazaea, S. A. (2021). Working capital management policies in Indian listed firms: A state-wise analysis. *Sustainability, 13*(8), 4516. https://doi.org/10.3390/su13084516

Fransisca, C., Shalahuddin, A., Wendy, Giriati, & Hasanudin. (2023). The influence of cash conversion cycle, capital structure, and liquidity on profitability with firm size as moderation. *International Journal of Applied Finance and Business Studies, 11*(3), 528–534. https://doi.org/10.35335/ijafibs.v11i3.166

Habib, A. M., & Dalwai, T. (2023). Does the efficiency of a firm's intellectual capital and working capital management affect its performance? *Journal of the Knowledge Economy*, 1–37. https://doi.org/10.1007/s13132-023-01138-7

Hidayat, I. D., Hermanto, S., & Tony, I. (2025). Working capital management and financial performance of property and real estate companies: Risk moderation. *International Journal of Research and Review, 12*, 285–295. https://doi.org/10.52403/ijrr.20250833

Huan, H. C., & Huy, D. N. M. (2020). Working capital management and firm profitability: Evidence from SMEs in Malaysia. *Journal of Science and Technology, 18*(6), 99–105.

Jaworski, J., & Czerwonka, L. (2022). Profitability and working capital management: Evidence from the Warsaw Stock Exchange. *Journal of Business Economics and Management, 23*(1), 180–198. https://doi.org/10.3846/jbem.2022.15087

Johan, S., Kayani, U. N., Naeem, M. A., & Karim, S. (2024). How effective is the cash conversion cycle in improving firm performance? Evidence from BRICS. *Emerging Markets Review, 59*, 101114. https://doi.org/10.1016/j.ememar.2024.101114

Kiymaz, H., Haque, S., & Abir, 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

Kouaib, A., & Bu Haya, M. I. (2024). Firm performance of Saudi manufacturers: Does the management of cash conversion cycle components matter? *Journal of Risk and Financial Management, 17*(1). https://doi.org/10.3390/jrfm17010016

Lewliyadda, L. M. I. M., & Subasinghe, T. T. (2023). Impact of cash conversion cycle on profitability: An empirical study on the listed hotel companies in Sri Lanka. *CECCAR Business Review, 9*, 41–55.

Liu, L., Zhou, X., & Xu, J. (2024). Does working capital management improve financial performance in China's agri-food sector during COVID-19? A comparison with the 2008 financial crisis. *PLoS ONE, 19*(4), 1–18. https://doi.org/10.1371/journal.pone.0300217

Mahmood, F., Ahmed, Z., Hussain, N., & Zaied, Y. B. (2024). Macroeconomic factors and financing strategies in working capital: Evidence from China. *International Journal of Finance & Economics, 29*(1), 35–57. https://doi.org/10.1002/ijfe.2666

Mahmood, F., Han, D., Ali, N., Mubeen, R., & Shahzad, U. (2019). Moderating effects of firm size and leverage on the working capital finance–profitability relationship: Evidence from China. *Sustainability, 11*(7), 2029. https://doi.org/10.3390/su11072029

Mandipa, G., & Sibindi, A. (2022). Financial performance and working capital management

practices in the retail sector: Empirical evidence from South Africa. *Risks, 10*(3), 63. https://doi.org/10.3390/risks10030063

Memon, M. A., Thurasamy, R., Ting, H., & Cheah, J. H. (2025). Purposive sampling: A review and guidelines for quantitative research. *Journal of Applied Structural Equation Modeling, 9*(1), 1–23. https://doi.org/10.47263/JASEM.9(1)01

OECD. (2021). *Strengthening economic resilience following the COVID-19 crisis: A firm and industry perspective*. OECD Publishing. https://doi.org/10.1787/2a7081d8-en

Panda, A. K., & Nanda, S. (2018). Working capital financing and corporate profitability of Indian manufacturing firms. *Management Decision, 56*(2), 441–457. https://doi.org/10.1108/MD-07-2017-0698

Park, S. J., & Yi, Y. (2022). Assessing moderator effects, main effects, and simple effects without collinearity problems in moderated regression models. *Journal of Business Research, 145*, 905–919. https://doi.org/10.1016/j.jbusres.2022.03.018

Pervaiz, A., & Akram, S. (2019). Firm size as a moderator between working capital management and firm profitability. *Journal of Economics and Sustainable Development, 10*(13).

Rakhmawati, A., Nalurita, F., & Hady, H. (2024). The effects of working capital management, liquidity, sales growth, and leverage on profitability moderated by firm size. *Business and Entrepreneurial Review, 24*(2), 169–192. https://doi.org/10.25105/ber.v24i1.21446

Ramadan, A., & Morshed, A. (2023). Working capital management roles for multinational retail industry profitability: A qualitative study, worldwide perspective. *Information Sciences Letters, 12*(10), 2707–2717. https://doi.org/10.18576/isl/121019

Roy, P., Bhatt, S., Dani, R., Singh, P. K., Vasudevan, A., & Singh, E. N. (2025). Skill and strategy: How managerial ability drives working capital efficiency. *F1000Research, 14*(347), 1–20. https://doi.org/10.12688/f1000research.162551.1

Saunders, M. N. K., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson.

Shabihah, K., & Rusdi, D. (2025). Moderation of firm size in the influence of working capital and inventory on the company's financial performance. *Journal of Accounting and Finance Management, 6*(1), 28–37. https://doi.org/10.38035/jafm.v6i1.1595

Shrestha, P. M. (2023). The impact of working capital management on profitability: Evidence from non-financial firms listed in NEPSE. *Interdisciplinary Journal of Innovation in Nepalese Academia, 2*(1), 53–63. https://doi.org/10.3126/idjina.v2i1.55965

Sogomi, F. C., Patrick, M. K., & Kamau, C. G. (2024). Exploring the relationship between working capital management, liquidity, and financial performance within the context of Kenyan SMEs. *African Journal of Commercial Studies, 4*(2), 113–120.

Stavropoulos, A., & Zounta, S. (2025). Cash conversion cycle and profitability: Evidence from Greek service firms. *Journal of Risk and Financial Management, 18*(4), 208. https://doi.org/10.3390/jrfm18040208

Sugiyono. (2020). *Metodologi penelitian kuantitatif, kualitatif, dan R&D* (2nd ed.). Alfabeta.

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

United Nations. (2024). *Financing for sustainable development report 2024: Financing for development at a crossroads*. United Nations.

Vo, T. Q., & Ngo, N. C. (2023). Does working capital management matter? A comparative case between consumer goods firms and construction firms in Vietnam. *Cogent Business & Management, 10*(3), 1–21. https://doi.org/10.1080/23311975.2023.2271543

Wassie, F. A. (2021). Working capital management and its impact on firms' performance: An empirical analysis on Ethiopian exporters. *Education Research International*. https://doi.org/10.1155/2021/6681572

Wichitsathian, S. (2022). Causal relationship between working capital policies and working capital indicators on firm performance: Evidence from Thailand. *Journal of Asian Finance, Economics and Business, 9*(5), 465–474. https://doi.org/10.13106/jafeb.2022.vol9.no5.0465

Zalaghi, H., Godini, M., & Mansouri, K. (2019). The moderating role of firms' characteristics on the relationship between working capital management and financial performance. *Advances in Mathematical Finance & Applications, 4*(1), 71–88.