

The effect of cash-based liquidity and asset structure ratio on operational profitability at PT Wilmar Cahaya Indonesia for the period 2015-2024

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Abstract: This study examines the effect of Cash Ratio and Asset Structure on Operating Profit Margin at PT Wilmar Cahaya Indonesia Tbk during 2015–2024. Using a quantitative approach, the study analyzes 10 annual financial reports through multiple linear regression. The results show that Cash Ratio has no significant effect on Operating Profit Margin ($t = 0.041$; $p = 0.968$), while Asset Structure also has no significant effect ($t = -0.486$; $p = 0.642$). Simultaneously, both variables have no significant effect on Operating Profit Margin ($F = 0.175$; $p = 0.843$), with an R^2 of 0.048. These findings indicate that Cash Ratio and Asset Structure have limited explanatory power for the company's operating profitability during the study period.

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Introduction

Industrial competition demands that manufacturing companies maintain financial performance and operational effectiveness. One indicator is Operating Profit Margin (OPM), which indicates a company's ability to generate operating profit from sales. Indonesia's economy is projected to grow by 5.03 percent in 2024, while the manufacturing sector is projected to grow by 4.43 percent. Therefore, manufacturing companies need to maintain their operational and financial performance.

PT Wilmar Cahaya Indonesia Tbk as a vegetable oil processing industry manufacturing company experienced changes in Cash Ratio, Asset Structure, and OPM during 2015 to 2024. Cash Ratio fluctuated from 1.33 percent in 2015 to 272.25 percent in 2023, Asset Structure was in the range of 11 to 17 percent, while OPM changed from 4 percent in 2015, reaching 9 percent in 2019, and was at 5 percent in 2024. These conditions indicate changes in cash-based liquidity, asset structure, and the company's operational profitability.

Fluctuations in the Cash Ratio indicate inconsistent cash management. A low ratio indicates limited cash available to meet short-term obligations, while a very high ratio may indicate cash that is not being utilized productively. This provides the basis for examining the effect of the Cash Ratio on OPM.

The Asset Structure also experienced changes during the research period, from 15 percent in

2015 to 2017, increasing to 17 percent in 2018, then decreasing to 11 percent in 2024. These changes indicate the unstable proportion of fixed assets to the company's total assets, so it is necessary to test whether the Asset Structure has an effect on OPM.

The research problem is reinforced by the inconsistent results of previous studies. Some studies found that liquidity has a positive effect on profitability, while others showed no significant effect (Oktapiadi et al., 2023; Magdalena & Munandar, 2024; Amelyana & Warasto, 2024; Sirait et al., 2024). Research on asset structure and profitability also shows differences in the significance and direction of the influence (Mulyani & Agustinus, 2022; Sirait et al., 2024). These differences constitute a research gap that needs further examination.

This study aims to determine the effect of Cash Ratio on OPM, the effect of Asset Structure on OPM, and the effect of both simultaneously on PT Wilmar Cahaya Indonesia Tbk for the period 2015 to 2024. This study is important to obtain empirical evidence regarding cash management and asset structure on operational profitability, with the novelty of testing Cash Ratio and Asset Structure simultaneously on OPM in the company and period.

Research methods

This study uses a quantitative approach with a quantitative descriptive method to analyze the effect of Cash Ratio and Asset Structure on Operating Profit Margin at PT Wilmar Cahaya Indonesia Tbk for the period 2015 to 2024. Quantitative research uses numerical data and statistical analysis to examine phenomena and relationships between variables (Hardani, 2020). The research method is a scientific method carried out systematically to obtain and prove knowledge (Panjaitan and Ahmad, 2017).

The research instrument was the annual financial report of PT Wilmar Cahaya Indonesia Tbk for the period 2015 to 2024, which was used to obtain data on Cash Ratio, Asset Structure, and Operating Profit Margin. Data were analyzed using IBM SPSS Statistics through descriptive statistics, classical assumption tests, multiple linear regression, t-tests, F-tests, and the coefficient of determination (R^2) (Ghozali, 2018; Ghozali, 2020; Ghozali, 2021; Pradina and Rismawati, 2024).

The research population consisted of financial report data from PT Wilmar Cahaya Indonesia Tbk related to the research variables. A population is the entirety of the characteristics, individuals, objects, or events targeted by the research (Yusuf, 2017). The research sample consisted of annual financial reports for 10 years, from 2015 to 2024, using a census approach because all available data was directly related to the research variables (Sugiyono, 2017).

The research procedure was carried out by selecting PT Wilmar Cahaya Indonesia Tbk as the research object, then collecting secondary data in the form of annual financial reports for the period 2015 to 2024 through the Indonesia Stock Exchange and the company's official website. The data was then processed to obtain Cash Ratio, Asset Structure, and Operating Profit Margin values, then analyzed using IBM SPSS Statistics through descriptive statistics, classical assumption tests, multiple linear regression, and hypothesis testing through t-tests, F-tests, and coefficients of determination. The research process was carried out from February to July 2026.

Research results

Descriptive Statistics

Table 1 Descriptive Statistics
Descriptive Statistics

	N	Minimum	Maximum	Mean	Standard Deviation
CR	10	.006383	2.722462	.87599740	.912858466
SA	10	.106712	.171113	.14332470	.017375691
OPM	10	.030897	.091361	.05139410	.020183117
Valid N (listwise)	10				

Based on Table 1, all variables have 10 observations for the 2015–2024 period. Cash Ratio has the highest variation, while Asset Structure is relatively stable. Operating Profit Margin indicates changes in the company's ability to generate operating profit during the study period.

Classical Assumption Test

Table 2 Results of the Shapiro-Wilk Normality Test

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistics	df	Sig.	Statistics	df	Sig.
Unstandardized Residual	.263	10	.048	.861	10	.078

a. Lilliefors Significance Correction

Based on Table 2, the results of the normality test using the Shapiro-Wilk method show a significance value of 0.078. This value is greater than the 0.05 significance level, namely $0.078 > 0.05$.

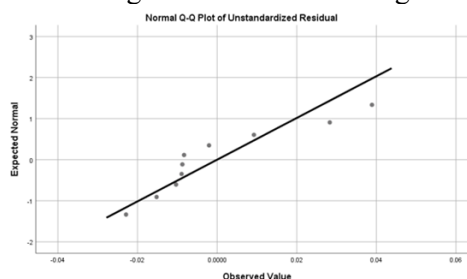


Figure 2 Normal PP Plot of Regression Standardized Residual

Based on Figure 2, the Normal PP Plot points follow the diagonal line and the Shapiro-Wilk test shows a significance of $0.078 > 0.05$. Thus, the residuals are normally distributed and the regression model meets the assumption of normality.

Table 3 Multicollinearity Test Results

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	Collinearity Statistics	
	B	Std. Error	Beta	t		Tolerance	VIF
1 (Constant)	.086	.076		1.124	.298		
CR	.000	.009	.018	.041	.968	.739	1.352
SA	-.242	.498	-.209	-.486	.642	.739	1.352

a. Dependent Variable: OPM

Based on Table 3, the results of the multicollinearity test show that the Cash Ratio (CR) variable has a tolerance value of 0.739 and a VIF value of 1.352. The Asset Structure (SA) variable also has a tolerance value of 0.739 and a VIF value of 1.352.

Table 4 Heteroscedasticity Test Results (Glejser)

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	Collinearity Statistics	
	B	Std. Error	Beta	t		Tolerance	VIF

1	(Constant)	-.006	.041		-.133	.898		
	CR	.005	.005	.377	.907	.394	.739	1,352
	SA	.117	.271	.179	.430	.680	.739	1,352

a. Dependent Variable: ABS_RES

Based on Table 4, the results of the heteroscedasticity test using the Glejser method show that the Cash Ratio (CR) variable has a significance value of 0.394, while the Asset Structure (SA) variable has a significance value of 0.680. Both significance values are greater than 0.05, namely $0.394 > 0.05$ and $0.680 > 0.05$.

Table 5 Autocorrelation Test Results

Model Summary

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate	Durbin-Watson
1	.218a	.048	-.225	.022334498	2,174

a. Predictors: (Constant), SA, CR

b. Dependent Variable: OPM

Based on Table 5, the results of the autocorrelation test show a Durbin-Watson value of 2.174. This study used 10 observations (n) and 2 independent variables (k). At a significance level of 5%, the lower limit (dL) value was 0.6972 and the upper limit (dU) was 1.6413. Furthermore, the 4-dU value was 2.3587.

Multiple Linear Regression Analysis

Table 6 Multiple Linear Regression Test Results

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.086	.076		1,124	.298		
	CR	.000	.009	.018	.041	.968	.739	1,352
	SA	-.242	.498	-.209	-.486	.642	.739	1,352

a. Dependent Variable: OPM

Based on Table 6 in the Unstandardized Coefficients B column, the constant value is 0.086, the Cash Ratio coefficient is 0.000389, and the Asset Structure coefficient is -0.242.

Table 7 Results of the Determination Coefficient (R²) Test

Model Summary

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate	Durbin-Watson
1	.218a	.048	-.225	.022334498	2,174

a. Predictors: (Constant), SA, CR

b. Dependent Variable: OPM

Based on Table 7, the R Square value of 0.048 indicates that the Cash Ratio and Asset Structure together are only able to explain 4.8% of the variation in Operating Profit Margin, while 95.2% is influenced by other factors outside the model. The Adjusted R Square value of -0.225 indicates that the model's ability to explain changes in Operating Profit Margin is very limited.

Hypothesis Testing

Table 8 Results of Partial Significance Test (t-Test)

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1	(Constant)	.086	.076	1,124	.298		
	CR	.000	.009	.018	.968	.739	1,352
	SA	-.242	.498	-.209	.642	.739	1,352

a. Dependent Variable: OPM

1. The Effect of Cash Ratio on Operating Profit Margin
Based on Table 4.8, the Cash Ratio has a t-value of 0.041 and a significance level of $0.968 > 0.05$. Therefore, the Cash Ratio does not significantly impact Operating Profit Margin. The coefficient is positive, but the effect is not statistically significant.
2. The Effect of Asset Structure on Operating Profit Margin
Asset Structure has a t-value of -0.486 and a significance level of $0.642 > 0.05$. Thus, Asset Structure does not significantly impact Operating Profit Margin. The coefficient is negative, but the effect is not statistically significant.
Partially, Cash Ratio and Asset Structure do not have a significant effect on the Operating Profit Margin of PT Wilmar Cahaya Indonesia Tbk for the period 2015–2024.

Table 9 Results of Simultaneous Significance Test (F Test)

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	2	.000	.175	.843b
	Residual	.003	7	.000		
	Total	.004	9			

a. Dependent Variable: OPM

b. Predictors: (Constant), SA, CR

Based on Table 9, the calculated F value is 0.175 with a significance of $0.843 > 0.05$ and a calculated F of $0.175 < F$ table 4.737. Thus, Cash Ratio and Asset Structure simultaneously have no significant effect on the Operating Profit Margin of PT Wilmar Cahaya Indonesia Tbk for the period 2015–2024. This result is in line with the R Square of 0.048, which indicates that the two variables only explain 4.8% of the variation in Operating Profit Margin.

Table 10 Statistics
Table 11 Statistics

Discussion

1. The Effect of Cash Ratio on Operating Profit Margin

Based on the results of the partial significance test, the Cash Ratio variable obtained a t-value of 0.041 with a significance value of 0.968. The significance value is greater than 0.05 and the absolute value of t-count of 0.041 is smaller than the t-table of 2.365. Thus, H_{01} is not rejected and H_{a1} is rejected. These results indicate that Cash-Based Liquidity proxied by Cash Ratio partially has no significant effect on the Operating Profit Margin of PT Wilmar Cahaya Indonesia Tbk for the period 2015–2024.

The Cash Ratio regression coefficient is positive at 0.000389. This positive trend indicates that an increase in the Cash Ratio tends to be followed by an increase in Operating Profit Margin, holding other variables constant. However, because this effect is not statistically significant, changes in the Cash Ratio have not been proven to significantly impact Operating Profit Margin during the study period.

These results indicate that a company's ability to meet short-term obligations using cash and cash equivalents does not directly increase operating profit from sales. The Cash Ratio reflects the company's cash availability to meet short-term obligations. While cash availability is necessary to maintain smooth operations, a high cash level does not necessarily mean it is being used productively to generate operating profit. Conversely, excessive cash may indicate underutilized funds.

This condition can be seen in the fluctuations in PT Wilmar Cahaya Indonesia Tbk's Cash Ratio over the 2015–2024 period. In the first few years, the Cash Ratio was relatively low, then increased in subsequent years. However, changes in the Cash Ratio were not always accompanied by changes in Operating Profit Margin in the same direction. This indicates that changes in cash-based liquidity do not yet have a consistent relationship with the company's operational profitability.

The results of this study align with those of Luthfiyah Amelyana and Hestu Nugroho Warasto (2024), which showed that liquidity had no significant effect on profitability. These results also align with those of Jhon Vetra Sirait, Hamidah, and M. Edo Suryawan Siregar (2024), which showed that liquidity had no effect on profitability. Therefore, these previous studies support the finding that liquidity levels do not always significantly increase company profitability.

However, the results of this study differ from those of Melpin Oktapiadi, Asep Muhammad Lutfi, and Guruh Dwi Pratama (2023) and Angelién Magdalena and Agus Munandar (2024), which showed that liquidity influences profitability. These differences indicate that the effect of liquidity on profitability can vary depending on company characteristics, the study period, and the indicators used to measure liquidity and profitability.

Based on these results, it can be concluded that for PT Wilmar Cahaya Indonesia Tbk, the Cash Ratio was not a factor capable of significantly explaining changes in Operating Profit Margin for the 2015–2024 period. Therefore, a high level of cash-based liquidity cannot be directly interpreted as an increase in the company's ability to generate operating profit.

2. The Effect of Asset Structure on Operating Profit Margin

Based on the results of the partial significance test, the Asset Structure variable obtained a t-value of -0.486 with a significance value of 0.642. The significance value is greater than 0.05 and the absolute value of t-count of 0.486 is smaller than the t-table of 2.365. Thus, H_{02} is not rejected and H_{a2} is rejected. These results indicate that the Asset Structure Ratio partially has no significant effect on the Operating Profit Margin of PT Wilmar Cahaya Indonesia Tbk for the period 2015–2024.

The Asset Structure regression coefficient of -0.242325 indicates a negative relationship with Operating Profit Margin. This means that if Asset Structure increases by one unit, assuming a constant Cash Ratio, Operating Profit Margin is expected to decrease by 0.242325. However, because the significance value is greater than 0.05, this negative relationship is not statistically significant. Therefore, changes in the proportion of fixed assets to total assets have not been proven to cause significant changes in Operating Profit Margin during the study period.

Theoretically, fixed assets are one of the resources a company uses to support production and operational activities. Effective use of fixed assets can help a company increase operational capacity and efficiency. However, a large proportion of fixed assets to total assets does not automatically increase operating profit. This is because the contribution of fixed assets to profit is also influenced by the company's utilization rate, productivity, efficiency, and ability to manage its assets.

Based on research data, PT Wilmar Cahaya Indonesia Tbk's asset structure has changed during the 2015–2024 period. However, changes in the proportion of fixed assets to total assets are not always accompanied by changes in operating profit margin in the same direction. This condition indicates that changes in asset structure do not yet have a consistent relationship with changes in the company's operational profitability.

The results of this study align with those of Nani Mulyani and Erick Agustinus (2022), which showed that asset structure has a positive but insignificant effect on profitability. Although the direction of the relationship differs, with Nani Mulyani and Erick Agustinus's study showing a positive trend, while this study shows a negative one, both studies share the similarity that asset structure does not significantly impact profitability.

However, the results of this study differ from those of Jhon Vetra Sirait, Hamidah, and M. Edo Suryawan Siregar (2024), which showed that asset structure (tangibility) had a negative and significant effect on profitability. These differences indicate that the effect of asset structure on profitability can vary depending on company characteristics, the research period, and the conditions of the object being studied.

Based on these results, it can be concluded that the asset structure at PT Wilmar Cahaya Indonesia Tbk for the 2015–2024 period has not been proven to have a significant impact on operating profit margin. Therefore, the proportion of fixed assets to total assets cannot be used as a primary factor in explaining changes in the company's operational profitability.

3. The Effect of Cash Ratio and Asset Structure on Operating Profit Margin Simultaneously

Based on the results of the simultaneous significance test or F test, the calculated F value was obtained at 0.175 with a significance value of 0.843. The significance value is greater than 0.05 and the calculated F value of 0.175 is smaller than the F table of 4.737. Thus, H_{03} is not rejected and H_{a3} is rejected. These results indicate that Cash Ratio and Asset Structure simultaneously do not have a significant effect on Operating Profit Margin at PT Wilmar Cahaya Indonesia Tbk for the period 2015–2024.

These results indicate that the Cash Ratio and Asset Structure, together, are unable to significantly explain changes in Operating Profit Margin. This indicates that the company's ability to meet short-term obligations through cash and cash equivalents and the proportion of fixed assets to total assets are insufficient to determine changes in the company's operational profitability during the study period.

The results of the coefficient of determination test also support these findings. The R-square value of 0.048 indicates that the Cash Ratio and Asset Structure together can only explain 4.8% of the variation in Operating Profit Margin. Meanwhile, 95.2% of the variation in Operating Profit Margin cannot be explained by the two independent variables used in this study.

The relatively low coefficient of determination indicates that the Cash Ratio and Asset Structure's ability to explain changes in Operating Profit Margin is still limited. However, this 95.2% value does not necessarily imply that changes in Operating Profit Margin are caused by specific factors outside the study, as these factors were not tested in the research model. This value simply indicates that the Cash Ratio and Asset Structure cannot explain most of the variation in Operating Profit Margin.

The results of this study align with those of Anisyah and Nina Shabrina, which showed that liquidity and activity simultaneously had no significant effect on profitability at PT Wilmar Cahaya Indonesia Tbk. However, there are differences in the independent variables used, as Anisyah and Nina Shabrina's study used activity, while this study uses Asset Structure. Therefore, the similarity in these results lies primarily in the insignificant influence of financial variables on profitability simultaneously.

The results of this study differ from those of Winda Hartendi and Karolina (2025), which showed that liquidity management and asset efficiency significantly impact profitability. These differences indicate that the influence of liquidity and asset variables on profitability can vary depending on company characteristics, the study period, and the indicators used to measure each variable.

Based on the overall research results, it can be concluded that Cash Ratio and Asset Structure, both partially and simultaneously, have not been proven to have a significant effect on the Operating Profit Margin of PT Wilmar Cahaya Indonesia Tbk for the period 2015–2024. Thus, changes in the company's operational profitability during the research period cannot be adequately explained only by the level of cash-based liquidity and the proportion of fixed assets to total assets.

Conclusion

This study shows that Cash Ratio and Asset Structure, both partially and simultaneously, have no significant effect on the Operating Profit Margin of PT Wilmar Cahaya Indonesia Tbk for the 2015–

2024 period. Cash Ratio has a positive effect, while Asset Structure has a negative effect. Simultaneously, both variables are only able to explain 4.8% of the variation in Operating Profit Margin, so the model's ability to explain operational profitability is still very limited. This finding indicates that changes in the company's operational profitability cannot be adequately explained by cash-based liquidity and asset structure.

This study is limited by the number of observations, which only cover 10 annual financial reports, and the use of two independent variables. Therefore, other factors remain unaccounted for in the model. Future research is recommended to expand the observation period, increase the number of companies, and consider other relevant variables to obtain more comprehensive results. Practically, the study results can serve as evaluation material for companies, as increasing cash flow and changing the proportion of fixed assets do not automatically increase operational profitability. Therefore, managing both requires more effective resource utilization.

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