

the Effect of Working Capital Turnover and Fixed Asset Turnover on net Profit Margin in Manufacturing Companies of the Pharmaceutical Sub-Sector Listed on the Indonesia Stok Exchange for Period 2019-2023

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Article Info

Article history:

Received: 4 December 2024

Publish: 1 January 2025

Keywords:

Working Capital Turnover;

Fixed Asset Turnover;

Net Profit Margin.

Abstract

This study aims to analyze the effect of working capital turnover and fixed asset turnover on Net Profit Margin (NPM) in pharmaceutical manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the period 2019–2023. The research employs a quantitative approach using descriptive methods, with secondary data from annual financial reports as the primary source. The sample consists of seven companies selected through purposive sampling criteria. The analysis method used is multiple linear regression with the t-test to measure partial effects, the F-test for simultaneous effects, and the coefficient of determination (R^2) to assess the contribution of independent variables to the dependent variable. The results show that working capital turnover significantly influences Net Profit Margin, while fixed asset turnover does not show a significant impact. Simultaneously, both independent variables affect NPM, with a moderate level of contribution. This study contributes to better management of working capital and fixed assets to improve company profitability. The findings are expected to serve as a reference for academics and practitioners in developing financial strategies in Indonesia's pharmaceutical sector.

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1. INTRODUCTION

The pharmaceutical industry is a strategic sector in Indonesia's economy, particularly in supporting the public's healthcare needs. The pharmaceutical industry is defined as a business that holds a direct license from the Ministry of Health to produce drugs according to established requirements, ensuring the efficacy, safety in dosage determination, and quality of each drug to meet societal needs, as stated in the Regulation of the Minister of Health of the Republic of Indonesia No. 1799/Menkes/Per/XII/2010. However, operational challenges during the COVID-19 pandemic, such as rising raw material costs and supply chain disruptions, have affected the financial stability of pharmaceutical companies. Addressing the pandemic was not easy, as pharmaceutical companies faced numerous challenges. However, during the pandemic, many strategies were developed to meet the soaring demand for healthcare needs, with 90% of Indonesia's population requiring medication to recover from COVID-19. To understand how pharmaceutical companies overcame the challenges faced during the pandemic, further research is needed on how these companies maintained revenue or sales percentages to analyze their financial stability.

To achieve this goal, companies require capital and high-quality human resources. Capital plays a crucial role in the production process. Therefore, company operations inevitably require capital as a funding source to finance production management.

Working capital refers to the capital used to carry out a company's operational activities. It is also defined as the investment in current or short-term assets such as cash, marketable securities, receivables, inventory, and other current assets (Ginting 2018). Working capital is essential for a company because it is continuously needed to finance daily operations, such as purchasing inventory, paying employee wages, and other operational needs. The funds spent are expected to be quickly replenished through sales revenue (Juanda and Setyabudi 2020). The purpose of working capital for a company is to fulfill the company's liquidity needs because sufficient working capital ensures the ability to meet obligations. Companies also aim to meet customer needs and obtain credit funds if their financial ratios meet the criteria set by the company (Cahyani and Sitohang 2020). Working capital turnover is a ratio used to measure or assess the effectiveness of a company's working capital during a specific period. It calculates how frequently working capital is turned over within a given period by comparing sales with working capital or average working capital (Maming 2018).

According to *Accounting Principles* (Weygandt, Kieso 2019), fixed assets are long-term assets used in the company's regular operations and not intended to be converted into cash within one year or a typical business cycle. Examples of fixed assets include land, buildings, and equipment. Fixed assets are crucial for a company, and the fixed asset turnover ratio indicates how effectively the company uses its fixed assets to generate revenue. Fixed assets are tangible assets held for use in producing or providing goods or services, renting to others, or for administrative purposes, and are expected to be used for more than one period (Ajibroto, Azizah, and De Keizer 2021). Fixed asset turnover measures the efficiency of fixed assets in supporting the company's sales activities by comparing sales to fixed assets (Fajriah and Jumady 2021). This highlights how the state of pharmaceutical companies post-pandemic shows slight improvements in fixed asset turnover, particularly for businesses like Tempo Scan (TSPC) and Kalbe Farma, which have increased production capacity. Fixed asset turnover is a comparison of sales to the company's total fixed assets (Adrianah 2020).

Net Profit Margin (NPM) is one of the profitability ratios a company uses to determine the percentage of net income after taxes. This ratio measures the company's operational effectiveness (Antonius, Latif, and Dewi 2019). If a company's profit margin is lower than the industry average, it may be due to lower selling prices compared to competitors or a combination of both (Wicaksono 2016). For instance, if a company has an NPM of 3.33%, it means that for every Rp. 1 in sales, the company earns Rp. 0.33 in net profit. Calculating the profit margin helps companies assess their financial condition and business development. Each company also has different benchmarks for its NPM level to determine the adequacy of its profitability ratio. Profitability shows a company's ability to generate profit over a specific period (Munawir 2014). A company's ability to generate income from sales efforts is indicated by its net profit margin, which compares net income after taxes to sales (D. P. I. Sari 2022). Profit margin is a tool used by companies to increase their profit without increasing sales by evaluating their sales capacity for generating net income perusahaan (A. K. Sari and Sari 2022). Profit is the surplus revenue from sales after deducting expenses and is used to measure a company's performance. Net income is the net difference between all revenues and gains and all expenses and losses, representing the net increase against costs and losses, as well as capital (Ermaya, Priatna, and Alfiani 2016).

This study focuses on the influence of working capital turnover and fixed asset turnover on profitability, measured through Net Profit Margin, with a case study of manufacturing companies in the pharmaceutical sub-sector listed on the Indonesia Stock Exchange (IDX) for the period 2019–2023.

2. RESEARCH METHODOLOGY

This study employs a quantitative method with a descriptive and causal approach to analyze the influence of working capital turnover and fixed asset turnover on Net Profit Margin (NPM) in pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2019–2023. The data used are secondary data obtained from annual financial reports published on the official IDX website, www.idx.co.id (2024). The sampling technique used is purposive sampling based on specific criteria. The independent variables in this study are Working Capital Turnover (X1) and Fixed Asset Turnover (X2), while the dependent variable is Net Profit Margin (Y). Data analysis techniques include classical assumption tests (normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test) and multiple linear regression analysis. Hypothesis testing is conducted using partial tests (t-test) and simultaneous tests (F-test). Data processing is performed using SPSS software version 30 to ensure valid and reliable results.

3. RESULT AND DISCUSSION

The Effect of Working Capital Turnover on Net Profit Margin

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.296	.067		4.423	<.001
	Perputaran Modal Kerja	-.098	.033	-.467	-2.989	.005
	Perputaran Aktiva tetap	-.012	.012	-.158	-1.013	.318

a. Dependent Variable: Net Profit Margin

Based on the research conducted, the first hypothesis concludes that working capital turnover has a significant negative effect on Net Profit Margin (NPM) in pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange for the period 2019–2023. The significance value (Sig.) of 0.005 (< 0.05) indicates that the effect of Working Capital Turnover on Net Profit Margin (NPM) is statistically significant. This means that changes in working capital turnover have a real impact on changes in the company’s Net Profit Margin (NPM). The negative coefficient in this study indicates that an increase in working capital turnover tends to decrease the company’s Net Profit Margin. This is supported by a t-value of -2.989, which is smaller than the t-table value of 1.692.

This study shows that working capital turnover has a significant negative effect on Net Profit Margin. The results align with the findings of (Astutisari, Kristianingsih, and Mayasari 2020) which state that working capital turnover negatively and significantly affects Net Profit Margin. Similar results were also found in the study by (Nurlia 2018) which concluded that working capital turnover negatively and significantly affects Net Profit Margin. This means that companies with excessively high working capital efficiency risk reducing their profitability. This serves as a warning for companies to carefully manage working capital, ensuring liquidity is maintained and profitability can be increased sustainably.

The Effect of Fixed Asset Turnover on Net Profit Margin

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.296	.067		4.423	<.001
	Perputaran Modal Kerja	-.098	.033	-.467	-2.989	.005
	Perputaran Aktiva tetap	-.012	.012	-.158	-1.013	.318

a. Dependent Variable: Net Profit Margin

ased on the research conducted, the second hypothesis concludes that Fixed Asset Turnover does not have a significant effect on Net Profit Margin (NPM) in pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange for the period 2019–2023. The significance value (Sig.) of 0.318 (> 0.05) indicates that the relationship between Fixed Asset Turnover and NPM is not statistically significant. This means that changes in Fixed Asset Turnover do not directly affect changes in NPM. With a t-value of -1.013, which is smaller than the t-table value of 1.692, the alternative hypothesis (H₁) is rejected, and the null hypothesis (H₀) is accepted.

This study shows that the efficiency of fixed asset utilization does not have a direct or significant relationship with the profitability level of the companies measured by NPM. This supports the conclusion that Fixed Asset Turnover does not significantly affect Net Profit Margin.

The findings align with the study conducted by (Arif Tribowo, Yenni Samri Juliati Nst, and Nurwani 2024) which states that Fixed Asset Turnover does not affect Net Profit Margin. However, these findings differ from the study by (Zatira 2017) which concluded that Fixed Asset Turnover significantly influences Net Profit Margin.

In the pharmaceutical sector, revenue often depends on product innovation, the sale of certain drugs, or licensing. The efficiency of fixed asset utilization may not be a primary determinant of profitability compared to other factors such as research, development, or marketing. Ratios such as inventory turnover, working capital efficiency, or cost management tend to have a more dominant impact on NPM than Fixed Asset Turnover.

This study concludes that Fixed Asset Turnover does not significantly affect Net Profit Margin. This indicates that in pharmaceutical sub-sector companies, the efficiency of fixed asset utilization is not the primary factor in determining profitability levels. Company management should focus more on other relevant variables, such as working capital management, marketing strategies, or cost control, to improve profitability.

The Effect of Working Capital Turnover and Fixed Asset Turnover on Net Profit

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.077	2	.038	4.724	.016 ^b
	Residual	.260	32	.008		
	Total	.336	34			

a. Dependent Variable: Net Profit Margin

b. Predictors: (Constant), Perputaran Aktiva tetap, Perputaran Modal Kerja

Margin

Based on the research conducted using the F-test, which examines all independent variables X (Working Capital Turnover and Fixed Asset Turnover) and the dependent variable Y (Net Profit Margin), this hypothesis simultaneously proves that the independent variables significantly affect the Net Profit Margin in pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2019–2023. In this study, the significance value (Sig.) is 0.016, and the F-table value is 3.29 (with df1 = 2 and df2 = 32 at a 5% significance level). The testing criteria are that if F hitung > F tabel or Sig. < α (0.05), then the null hypothesis (H₀) is rejected. Therefore, the hypothesis testing result of this study is F hitung = 4.724 > F tabel = 3.29 and Sig. = 0.016 < 0.05, so H₀ is rejected.

This means that the results show that, simultaneously, the variables Working Capital Turnover (X1) and Fixed Asset Turnover (X2) significantly affect Net Profit Margin (Y).

The results of this study are consistent with the research conducted by (Aulia Indah Juita et al. 2021) which stated that Working Capital Turnover and Fixed Asset Turnover have a significant effect on Net Profit Margin. This research also aligns with the study by (Arif Tribowo, Yenni Samri Juliati Nst, and Nurwani 2024) which concluded that Working Capital Turnover and Fixed Asset Turnover significantly affect Net Profit Margin.

This relationship indicates that strategies for managing working capital and the efficient use of fixed assets, when combined, have a significant impact on the company's profitability (measured by NPM). Companies need to maximize the efficiency of working capital and fixed assets to increase net profit margin. However, these results do not show the strength of each variable separately; therefore, a t-test is necessary. This means that changes in the combination of these two independent variables can explain variations in Net Profit Margin. The results of the F-test show that, simultaneously, Working Capital Turnover (X1) and Fixed Asset Turnover (X2) have a significant impact on Net Profit Margin (Y) in pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange (IDX).

4. CONCLUSION

This study aims to determine the effect of Working Capital Turnover and Fixed Asset Turnover on Net Profit Margin in manufacturing companies of the pharmaceutical sub-sector listed on the Indonesia Stock Exchange (IDX) for the period 2019–2023. Based on the findings, the following conclusions can be drawn:

1. Partially, Working Capital Turnover has a significant negative effect on Net Profit Margin in manufacturing companies of the pharmaceutical sub-sector listed on the Indonesia Stock Exchange (IDX).
2. Partially, Fixed Asset Turnover does not have a significant effect on Net Profit Margin in manufacturing companies of the pharmaceutical sub-sector listed on the Indonesia Stock Exchange (IDX).
3. Simultaneously, Working Capital Turnover and Fixed Asset Turnover have a significant effect on Net Profit Margin in manufacturing companies of the pharmaceutical sub-sector listed on the Indonesia Stock Exchange (IDX).

5. SUGGESTIONS

Based on the conclusions discussed above, the following recommendations are made:

1. For Companies: Based on the conclusions discussed above, it is recommended that the management of pharmaceutical sub-sector manufacturing companies pay closer attention to managing their Working Capital Turnover ratio, as this ratio has a significant negative effect on profitability (Net Profit Margin). This needs to be reconsidered to avoid potential losses in the company's capital.
2. For Investors: This research is expected to be useful for investors by providing information about the effect of Working Capital Turnover and Fixed Asset Turnover on Net Profit Margin.
3. For Future Researchers: Future researchers are encouraged to explore additional variables or more diverse factors that may influence Net Profit Margin in pharmaceutical companies listed on the Indonesia Stock Exchange, such as Working Capital Turnover, Fixed Asset Turnover, and others.

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