THE EFFECT OF WORKING CAPITAL AND COMPANY SIZE ON PROFITABILITY IN INDUSTRIAL SECTOR COMPANIES ON THE IDX (2020–2024)

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Abstract

This study aims to analyze the influence of working capital and company size on profitability in industrial sector companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period. Profitability is an important indicator in assessing a company's financial performance because it reflects the company's ability to generate profits from the resources it has. This study uses descriptive and verifiable methods with a quantitative approach. The research population includes all industrial sector companies listed on the IDX, with purposive sampling techniques, so that 39 companies were obtained as samples. With an observation period of five years, the number of data analyzed was 195 observations. The research data is obtained from the company's officially published annual financial statements. Data analysis was carried out using statistical methods to test the influence of independent variables on dependent variables. The results show that working capital does not always have a positive effect on the company's profitability, which indicates that high working capital is not necessarily followed by efficient asset management. Meanwhile, the size of the company has a role in reflecting the stability and operational capacity of the company, although its effect on profitability depends on the effectiveness of management. This research is expected to contribute to the management of companies and investors in financial decision-making.

Keywords: Influence of Working Capital, Company Size, Profitability, Industrial Sector

INTRODUCTION

Profitability is a very crucial aspect for a company in achieving its goals, which is to generate profits or profits. The main goal of a company is to achieve the maximum profit, so it is important for the company to regularly monitor the development of its business. In this way, the company is able to take the necessary actions to maintain sustainability and achieve goals with optimal results. The sustainability of a company is influenced by various elements, and one of them is profitability. Every company that operates will definitely need costs, both to finance daily operational activities and to support long-term investments (Tri Yulaeli, 2023)

Profitability is often measured through the Return on Assets (ROA) ratio, which shows the amount of net profit a company earns relative to the total assets it owns. ROA describes the extent to which a company's assets are able to generate revenue, so the greater the value of the ROA, the better the company's ability to utilize assets to create profits. ROA is usually expressed in the form of a percentage and is an important indicator for management and investors in evaluating the company's operational efficiency and future growth potential, as it shows the extent to which assets are being used effectively to generate revenue. Previous research explained that ROA is a profitability indicator that is often used in the analysis of financial statements, because it can show how much profit a company earns from each unit of asset it owns. A high ROA indicates that the company's management is able to use resources effectively, resulting in revenue that is greater than operating costs, while a low ROA reflects weaknesses in asset management and cost structure. Thus, stable and high profitability is an important factor for investors, creditors, and management in making strategic decisions and assessing the company's financial health in the future. (Armono , 2024) (Awliya , 2022) (Armono , 2024) (Awliya , 2022)

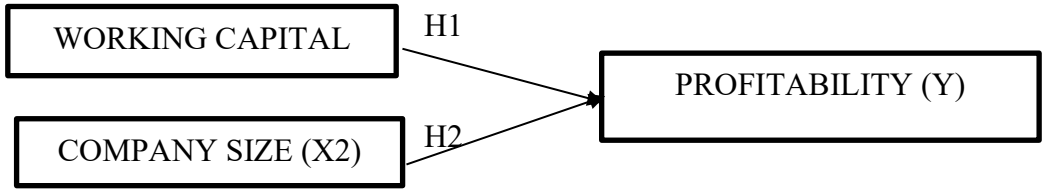
One of the sectors that should be analyzed in terms of profitability is the industrial sector listed on the Indonesia Stock Exchange (IDX). This sector is important for the national economy because it is the main driver in the production process and provides various goods needed by other sectors such as automotive, heavy equipment, energy, and manufacturing. However, during the period 2020 to 2024, the sector faced various major challenges, such as the impact of the COVID-19 pandemic, disruptions to global supply chains, and volatile raw material and energy prices. These factors lead to a decrease in profit margins and put pressure on the level of profitability of companies in this sector.

Working capital is the funds that the company uses to carry out daily activities. These funds come from a variety of current assets such as cash, receivables, and merchandise. Working capital shows the company's ability to meet obligations that must be paid in a short period of time and keep business operational processes running smoothly. According to , working capital is a company's investment in short-term assets that aims to support operational activities so that the business can run properly and efficiently. However, based on the Pecking Order theory, if the working capital ratio is getting larger, then the costs incurred by the company to fulfill its obligations also increase. As a result, the company's ability to generate profits will be reduced, which can lead to a decrease in the company's profitability level. (Heri Sastra, 2013) (Myers & Majiuf, 1981)

Various previous studies have shown different results regarding the influence of working capital and company size on profitability in industrial sector companies listed on the

Indonesia Stock Exchange (IDX). Research by Ambarwati and team (2022) found that efficient working capital management has a positive and significant impact on the profitability of manufacturing companies on the IDX. The faster the working capital revolves, the higher the rate of return on the company's assets (Ambarwati et al., 2022). However, it found a different result, namely that working capital has a negative and insignificant influence on profitability. This is due to the existence of companies that have high levels of receivables and inventory, thus slowing down capital turnover (Mariana Atika, 2022)

By paying attention to various phenomena and the results of previous research, this study seeks to re-analyze the influence of working capital and company size on profitability in industrial sector companies listed on the Indonesia Stock Exchange for the period 2020–2024. This research is expected to make an empirical contribution to the development of the financial management literature and become a reference for management and investors in understanding the factors that affect financial performance in this sector.



Hypothesis

H_1: Working capital positively and significantly affects profitability in industrial sector companies listed on the Indonesia Stock Exchange during the period 2020 to 2024.

H_2: Company size has a positive and significant effect on profitability in industrial sector companies listed on the Indonesia Stock Exchange for the 2020–2024 period.

RESEARCH METHOD

This research was conducted using two variables, namely independent variables (Working Capital and Company Size) and dependent variables (Profitability). Independent variables are variables that can affect or cause changes or the emergence of dependent variables. Dependent variables are variables that are affected or that are a consequence, due to the existence of independent variables.

This research was conducted on Industrial Sector companies listed on the Indonesia Stock Exchange (IDX) in the period 2020 – 2024. The population in this study is 67 companies. The sampling technique used is using *a purposive sampling technique* and the sample results of 39 companies listed on the Indonesia Stock Exchange (IDX) for the 2020-2024 period can be seen in Table 1 of the research sample data.

The data analysis method in this study uses a quantitative approach with statistical analysis. The analysis techniques used included descriptive statistical analysis, classical assumption tests (normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test) and multiple linear regression analysis. To test the significance of the model, simultaneous tests (F test), partial tests (T tests) and Determination coefficient tests were used.

Table 1.
Research Sample Data

Yes	Sample Criteria	Quantity
1	Population: Industrial Companies listed on the Indonesia Stock Exchange (IDX) for the 2020-2024 period	67
2	Industrial Companies that do not publish or publish consecutive annual reports on the IDX during the 2020-2024 period	(3)
3	Industrial companies that do not present complete data related to the variables to be studied.	(8)
4	Industrial Sector Companies whose data is outlier	(17)
	Number of Samples	39

RESULTS AND DISCUSSION

Classical Assumption Test Results

The classical assumption test is carried out to ensure that the regression model used **meets the statistical prerequisites so that the estimation results are reliable, unbiased, and consistent**. There are 4 types of classical assumption tests carried out, namely: heteroscedasticity test, multicollinearity test, normality test, and autocorrelation test.

Normalization Test

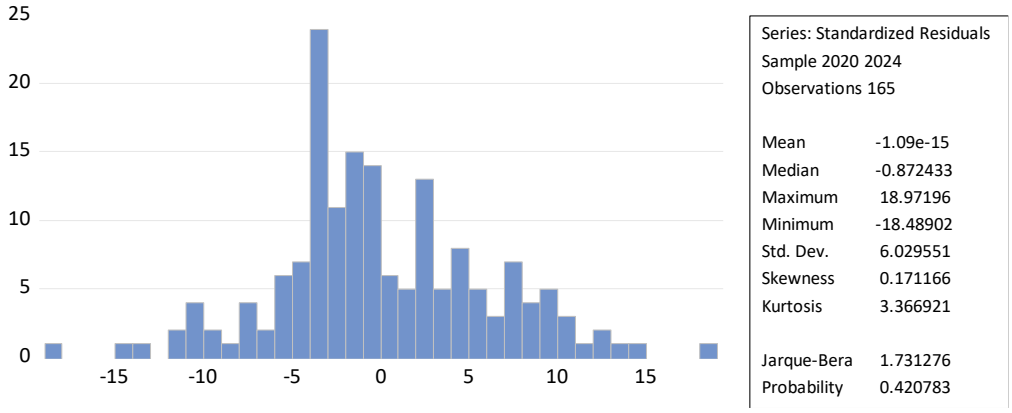


Figure 1.
Normality Test Results

Based on Figure 1, the resulting jarque-berra value is 1.731276, and the probability value is 0.420783. Thus, the regression model is normally distributed.

Multicollinearity Test

Table 2.
Multicollinearity Test Results

Variable	Working Capital	Company Size
Working Capital	1.000000	0.626821
Company Size	0.626821	1.000000

Source: secondary data, processed (2025)

Based on Table 2, the Correlation Value of Working Capital and Company Size is 0.62 < 0.80, so there is no significant symptom of multicollinearity between the two variables.

Heteroscedasticity Test

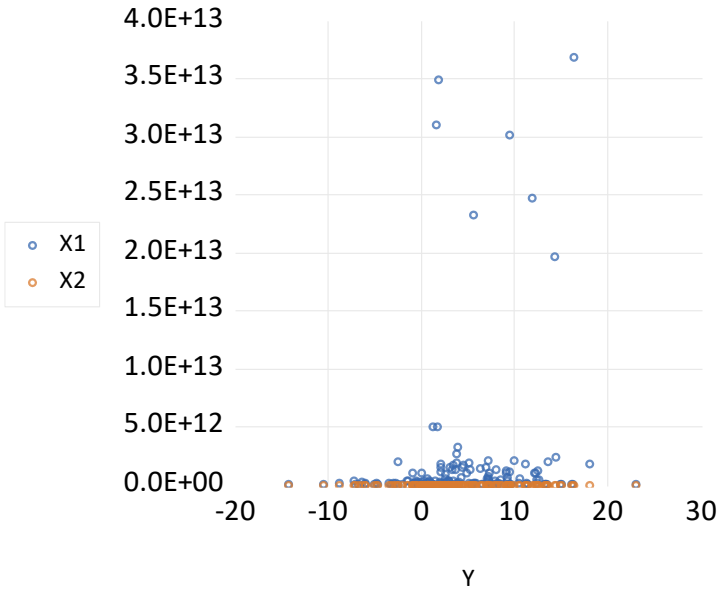


Figure 2.
Scatterplot Graphics

Based on Figure 2 of the scatterplot results between the residual and the predicted value, it can be seen that the dots at the bottom of the graph are evenly distributed, not forming a pattern such as widening or narrowing. Thus, it can be concluded that the regression model does not experience symptoms of heteroscedasticity, so the model is feasible to use for further analysis.

Autocorrelation Test

Table 3. Autocorrelation Test Results

Test Results	Durbin Watson's Values
Autocorrelation	1.550356

Source: secondary data, processed (2025)

The autocorrelation test in this study used the Durbin Watson test. The result of the DW value (1.550356) is between DU (1.6430) and 4 – DU (2.357), so the conclusion is that there is no Autocorrelation, because the DW value is in the range of DU < DW < 4 – DU, so the model does not show any positive or negative Autocorrelation.

Hypothesis Test

T Test

Table 4.
T Test Results

Test Results	T value	Probability (sig)
Working Capital (x1)	-0.744462	0.4577
Company Size (x2)	0.215193	0.8299

Source: secondary data, processed (2025)

The results of the t-test show T-Table 1.97559 while T-Statistics X1 -0.744462 shows smaller than T-Table which means no effect, while X2 0.215193 shows smaller than T-Table which means no effect, that it can be concluded that the variables working capital (x1) and company size (x2) both have no effect on profitability.

Test F

Table 5.
F Test Results

R-squared	0.004640	Mean dependent var	1.215552
Adjusted R-squared	-0.007648	S.D. dependent var	3.364446
S.E. of regression	3.377287	Sum squared resid	1847.783
F-statistic	0.377611	Durbin-Watson stat	1.550356
Prob(F-statistic)	0.686099		

Source: secondary data, processed (2025)

The results of the f test show that F-Table is 3.902957 while F-Statistics -0.377611 shows that it is smaller than F-Table which means that it has no effect, that it can be concluded that both variables have no effect on profitability.

Coefficient Determination Test

Table 6.
Determination Coefficient Test Results

R-squared	0.004640	Mean dependent var	1.215552
Adjusted R-squared	-0.007648	S.D. dependent var	3.364446
S.E. of regression	3.377287	Sum squared resid	1847.783
F-statistic	0.377611	Durbin-Watson stat	1.550356
Prob(F-statistic)	0.686099		

Source: secondary data, processed (2025)

The value of the determination coefficient (R^2) of -0.007648 shows the influence of the independent variables of working capital (x1) and company size (x2) on profitability of 7%, the remaining 93% is influenced by other variables under study.

The Effect of Working Capital on Profitability

Based on the results of the t-test, the working capital variable shows a t-calculated value of -0.744462 with a probability of 0.4577 greater than 0.05. Thus, H1 was declared rejected. Thus, the results of the study stated that working capital has a positive effect on profitability that is not significant. This means that the increase in working capital does not make profits increase significantly. This happens because most of the company's working capital in the industrial sector is used for receivables and large stocks, so the capital round is slow and does not provide maximum benefits for the company's profit.

These results are supported by findings from the finding that working capital has a negative and insignificant influence on profitability. This is due to the existence of companies that have high levels of receivables and inventory, thus slowing down the turnover of working capital. However, it is not in line with research (Ambarwati et al., 2022) that efficient management of working capital has a positive and significant impact on the profitability of manufacturing companies on the IDX. The faster the working capital revolves, the higher the

rate of return on the company's assets (Ambarwati et al., 2022). (DESY RAHAYU KURNIA, n.d.) (DESY RAHAYU KURNIA, n.d.)

The Effect of Company Size on Profitability

Based on the results of the t-test, the company size variable has a t-calculated value of 0.215193 with a probability of 0.8299 which is greater than 0.05. Thus, H_2 was declared rejected. Thus, the results of the study stated that the size of the company had a positive effect on profitability was not significant. These results show that the total assets owned by the company have not been able to increase the ability to generate profits. Large-scale companies may face the problems of complexity in operations, complicated financing structures, waste of resources, and high administrative and bureaucratic costs. These things can actually reduce the company's profitability. Therefore, the efficiency aspect in the use of resources has more influence on the ability to generate profits than the size of the company itself.

These results are supported by findings from showing that company size does not necessarily increase profitability, as large companies often face greater operational and bureaucratic costs than small companies. (Mariana Atika, 2022) (Mariana Atika, 2022)

Research Limitations

Several limitations in this study need to be considered in understanding the results obtained. The independent variables studied only included working capital and company size, so they did not represent other factors that could also affect the company's profitability. In addition, the relatively short research period, which is 2020 – 2024, and partly took place during the COVID-19 pandemic has the potential to affect the company's financial condition abnormally. The scope of research that is limited to companies in the Industrial sector on the IDX also limits the generalization of results to other sectors. This research relies entirely on secondary data from financial statements, so the accuracy of results is greatly influenced by the completeness and consistency of the data published by the company.

CONCLUSION

The conclusion of this analysis is that the increase in working capital does not contribute significantly to the company's profitability, while the size of the company also does not contribute significantly to the company's profitability. Based on these results, the next suggestion is that companies need to improve the effectiveness of working capital management, especially receivables and inventories so as not to cause a buildup of funds that hinder profitability and large companies need to improve operational efficiency to reduce costs that do not provide added value to profits.

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