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The Effect Of QR, ITO And TATO On NPM Tobacco Companies

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Abstract

The study aims to determine and prove the effect of Quick Ratio, Inventory Turnover and Total Asset Turnover on Net Profit Margin tobacco subsector companies on Indonesia Stock Exchange period 2015-2024. The research method used is quantitative. Data analysis using multiple linear regression techniques using 20 spss application. The results of the test t Quick Ratio test obtained sig. 0.552 > 0.05 and tcount < ttable 0.603 < 2.056 means Ho1 is accepted and Ha1 is rejected, Inventory turnover obtained sig 0.062 > 0.05 and tcount < ttable -1,950 < 2.056 means Ho2 is rejected Ha2 is rejected, Total Asset Turnover obtained sig 0.002 < 0.05 and tcount > ttable 3.374 > 2.056 means Ho3 is rejected and Ha3 is accepted. the results of the F test obtained sig. 0.000 < 0.05 and tcount > ttabel 8,506 > 2,975 which means that Ho4 is rejected and Ha4 is accepted. It can be concluded that partially Quick Ratio and Inventory Turnover have no significant effect on Net Profit margin while Total Asset Turnover variable has significant effect on Net Profit Margin. Simultaneously Quick Ratio, Inventory Turnover and Total Asset Turnover have a significant effect on Net Profit Margin.

Keywords : Quick Ratio, Inventory Turnover, Total Asset Turnover, Net Profit Margin

Introduction

The tobacco industry makes a significant contribution to the Indonesian economy to state revenue through excise, taxes and also labor absorption. Based on data from the Ministry of Finance, statistics on cigarette customs revenue in the last 10 years show an increase (A. A. Putri, 2023). In addition to influencing the financial sector, the tobacco industry has a wide multiplier effect by creating jobs for many people ranging from farmers to marketing and retail employees. Based on data from the Central Statistics Agency (BPS) in 2023, there are around 1.46 million workers in the tobacco processing sector, including 342.417 workers in micro industries, 868.434 people in small industries, and 246.587 workers in large and medium-scale industries (Werdiningsih, 2025).

However, behind its contribution to the country's large economy, the tobacco subsector on the Indonesia Stock Exchange (IDX) has to face complex pressures in line with the tightening of regulations by the government. The government gradually increased the excise rate on tobacco products by 23% in 2020, then 12.5% in 2021, 12% in 2022, 2023 and 2024, excise rates will rise again by 10% (Candra, 2022). The government also restricted advertising, promotion and expanded the ban on smoking in public areas.

People today are increasingly aware of the health impacts of smoking, especially because of the intense anti-smoking campaigns aired by governments and global health organizations. The use of online media as an anti-smoking campaign strategy is increasingly being carried out to influence people's behavior in suppressing or stopping smoking habits as a whole (Nurmidin, 2024). This awareness led to a change in consumer preferences towards alternative products. Alternative tobacco products such as vapes and heated tobacco products are considered to have a lower risk than conventional cigarettes that implement a combustion system (M. R. D. Putri, 2023). In addition, competition at the global level is getting tighter due to the entry of imported cigarettes. Indonesia as a major cigarette producing country has strict policies related to imported cigarettes, including imported cigarettes from China (Jeremy, 2023). This is done to maintain the local tobacco industry and ensure product compliance meets the standards set by the government. However, imported cigarettes from China are still widely circulated in Indonesia illegally and marketed without official permits (Jeremy, 2023).

This discrepancy harms the state in terms of potential state revenue and also harms legal tobacco manufacturers in terms of price, business competition and declining sales. When there is a decrease in sales, it results in a decrease in the company's profits which has an impact on the level of profit that the company generates (Utami & Manda, 2021). In this situation, the company must be able to survive in the midst of challenges or increase profitability so that the business remains sustainable. The financial condition of the tobacco subsector company during 2015-2019 experienced net profit fluctuations and even in PT Indonesia Tobacco Tbk company suffered losses in 2016 and 2019.

Profitability is considered an important indicator in assessing the financial health of a company, especially to measure how much profit it is able to generate in a period (Utami & Manda, 2021). One method to assess profitability is to calculate net profit margin. According to (Kasmir, 2017) states that "net profit margin is a measure of profit by comparing profit after interest and tax compared to sales".

In the midst of increasingly competitive market competition, the company's ability to maintain liquidity is the main factor in the sustainability of its short-term operations. According to (Kasmir, 2017) states that "the quick ratio or current ratio is a ratio that shows the company's ability to meet or pay obligations or current debts (short-term debt) with current activity without taking into account the value of inventory".

The company's continuous operational continuity requires the availability of inventory as the main supporting element. According to (Kasmir, 2017) states that "the turnover of the inventory is a ratio used to measure the number of times the funds invested in this inventory rotate in a period".

In addition, the ratio that can be used to measure the efficiency of the company's asset utilization to generate sales is Total assets turover. According to (Kasmir, 2017) "total assets turnover is a ratio used to measure the turnover of all assets owned by a company and measure how much sales are obtained from each rupiah of assets".

The study relates to signal theory located in the financial ratio that gives signals to external parties. Signalling Theory was first introduced by Spence in 1973. Signal theory explains the company's motivation to disclose information to external parties, this is believed to be able to influence investors' decisions to invest capital in the company in question (Darmawan et al., 2023). Therefore, this study is important to analyze "The Effect of QR, ITO, and TATO on NPM Tobacco Companies" using the signal theory approach as a grand theory. To obtain information about the factors influencing a company's financial performance, instruments such as financial ratios are necessary. By understanding the relationship between these financial ratios and profitability, companies can formulate strategic steps to improve operational efficiency, competitiveness and financial performance in facing the ever-evolving dynamics of the industry.

Method

The type of data used in this study is quantitative research. The data sources used in this study are numerical data or secondary data in the form of annual financial reports of tobacco subsector companies listed on the Indonesia Stock Exchange for 2015-2024 through the website www.idx.co.id. The data collection methods used in this study are documentation and bibliography methods. Sample selection uses a purposive sampling technique based on certain criteria. The population in this study consists of 4 companies and the sample consists of 3 companies.

Data processing and analysis were performed using SPSS and Microsoft Excel. Descriptive statistical tests provided an overview of the data. Classical assumption tests were used to ensure the data met analysis requirements, including normality, multicollinearity, autocorrelation, and heteroscedasticity. Furthermore, the coefficient of determination (R^2), partial t-test, and simultaneous F-test were used to measure the significance and magnitude of the variables' influence.

Result

Table 1: Deskriptive Statistical Test Result

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
X1_QR	30	,20	2,58	1,0883	,77897
X2_ITO	30	1,44	5,20	2,9000	1,29436
X3_TATO	30	1,07	2,34	1,6077	,42101
Y_NPM	30	,01	,13	,0740	,03410
Valid N (listwise)	30				

Based on Table 1, of the descriptive statistical test results above, it is known that the number of N in this study is 30 data. The quick ratio (QR) variabel has minimum value of 0,20 from the entire sample. The maximum value is 2,58 from the entire sample. The mean value is 1,0883 and the standar deviasi is 0,77897. The inventory turnover (ITO) variabel has minimum value of 1,44 from the entire sample. The maximum value is 5,20 from the entire sample. The mean value is 2,9000 and the standar deviasi is 1,29436. The total asset turnover (TATO) variabel has minimum value of 1,07 from the entire sample. The maximum value is 2,34 from the entire sample. The mean value is 1,6077 and the standar deviasi is 0,42101. The net profit margin (NPM) variabel has minimum value of 0,01 from the entire sample. The maximum value is 0,13 from the entire sample. The mean value is 0,0740 and the standar deviasi is 0,03410.

Table 2: Normality Test Result

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		30
Normal Parameters[a,b]	Mean	0E-7
	Std. Deviation	,02422455
Most Extreme Differences	Absolute	,116
	Positive	,109
	Negative	-,116
Kolmogorov-Smirnov Z		,635
Asymp. Sig. (2-tailed)		,816

a. Test distribution is Normal.

b. Calculated from data.

Based on Table 2, the results of the normality test using the One-Sample Kolmogorov-Smirnov Test show an Asymp. Sig. (two- tailed) value of 0,816. This indicates that the sig. value is greater than 0,05, which means that the data in this study is normally distributed and meets the classical normality assumption test.

Table 3: Multicollinearity Test Result

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	X1_QR	,707	1,414
	X2_ITO	,199	5,029
	X3_TATO	,174	5,762

a. Dependent Variable: Y_NPM

Based on Table 3, the results of the multicollinearity test show that the tolerance values of the three independent variables, namely QR, ITO, and TATO, are 0,707, 0,199, and 0,174, respectively which are greater than 0,1. The VIF values of the variables QR, ITO, and TATO are 1,414, 5,029, and 5,762, respectively which are less than 10. Therefore, it can be concluded that there is no multicollinearity among the independent variables.

Table 4: Autocorrelation Test Result

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,704[a]	,495	,437	,02558	1,884

a. Predictors: (Constant), X3_TATO, X1_QR, X2_ITO

b. Dependent Variable: Y_NPM

Based on Table 4, the results of the autocorrelation test with Durbin Watson above show that the Durbin Watson value is 1,884. When viewed from the comparison results at a significance level of 5%, it is known that DW with n equal to 30 and the number of independent variables (K) equal to 3, then dU is 1,6498. The condition for no autocorrelation is if the DW > dU and DW < 4-dU. In this study, the result obtained is 1,884 > 1,6498, where the DW value is greater than the dU threshold, and DW < 4-dU, where the value of (4-dU) is 2,3502. Therefore, it can be concluded that the data does not exhibit autocorrelation or is free from autocorrelation.

Table 5: Heteroskedasticity Test Result

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,045	,013		3,621	,001
	X1_QR	,001	,004	,038	,177	,861
	X2_ITO	,006	,004	,507	1,252	,222
	X3_TATO	-,027	,015	-,791	-1,824	,080

a. Dependent Variable: ABRESID

Based on Table 5, the results of the heteroscedasticity test using the Glejser test show that the sig. value of the quick ratio variable is 0.861, the inventory turnover variable is 0.222, and the total asset turnover variable is 0.080. The significance value of these three variables is > 0.05. From these results, it can be concluded that the regression equation model does not exhibit heteroscedasticity or signs of heteroscedasticity.

Table 6: Multiple Linear Regression Analysis Result

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,031	,023		-1,352	,188
	X1_QR	,004	,007	,100	,603	,552
	X2_ITO	-,016	,008	-,609	-1,950	,062
	X3_TATO	,091	,027	1,128	3,374	,002

a. Dependent Variable: Y_NPM

Based on Table 6, the results of multiple linear regression analysis can be formulated as follows:

$$Y = -0,031 + 0,004X1 - 0,016X2 + 0,091X3 + Ɛ$$

The constant value (α) of -0,031 indicates that if the independent variables, namely quick ratio (X1), inventory turnover (X2), and total asset turnover (X3), remain constant or unchanged and are equal to (0), then the net profit margin will decrease by 0,031. The regression coefficient value of quick ratio (X1) is positive at 0,004. This means that if the quick ratio increases by 1 unit while other values remain constant, the net profit margin will increase by 0,004. The regression coefficient value of inventory turnover (X2) is -0,016. This means that if inventory turnover increases by 1 unit while other values remain constant, the net profit margin will decrease by 0,016. The regression coefficient value of total asset turnover (X3) is 0,091. This means that if total asset turnover increases by 1 unit while other values remain constant, net profit margin will increase by 0,091.

Table 7: Coefficient of Determination Result

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,704[a]	,495	,437	,02558	1,884

a. Predictors: (Constant), X3_TATO, X1_QR, X2_ITO

b. Dependent Variable: Y_NPM

Based on Table 7, the test result Adjusted R- Square value is 0,437 or 43,7%, which means that 43,7% of the variation in net profit margin (Y) can be explained by the independent variables, namely quick ratio (X1), inventory turnover (X2), and total asset turnover (X3). The remaining 56,3% (100% - 43,7%) can be explained by other variables outside the scope of this study.

Table 8: Test- t Result

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,031	,023		-1,352	,188
	X1_QR	,004	,007	,100	,603	,552
	X2_ITO	-,016	,008	-,609	-1,950	,062
	X3_TATO	,091	,027	1,128	3,374	,002

a. Dependent Variable: Y_NPM

The t-table value in this study is ttabel = (α/2 ; n-k-1 or residual df) = (0,05/2; 30-3-1) = (0,025 ; 26) = 2,056.
Based on Table 8, the t-test results in regression mode are as follows:
The test hypothesis between X1 on Y partially
The sig. value generated by the quick ratio of 0,552 is greater than 0,05 or (0,552 > 0,05). Meanwhile, the tcount is 0,603, which is tcount < ttable (0,603 < 2,056). Therefore, it can be concluded that Ho is accepted and Ha is rejected. This means that H1, the quick ratio have no significant partial effect on the net profit margin.
The test hypothesis between X2 on Y partially
The sig. value generated by the inventory turnover of 0,062 is greater than 0,05 or (0,062 > 0,05). Meanwhile, the tcount is -1,950, which is tcount < ttable (-1,950 < 2,056). Therefore, it can be concluded that Ho is accepted and Ha is rejected. This means that H2, the inventory turnover have no significant partial effect on the net profit margin.
The test hypothesis between X3 on Y partially
The sig. value generated by the total asset turnover of 0,002 is less than 0,05 or (0,002 < 0,05). Meanwhile, the tcount is 3,374 , which is tcount > ttable (3,374 > 2,056). Therefore, it can be concluded that Ho is rejected and Ha is accepted. This means that H3 total asset turnover has a significant partial effect on net profit margin.

Table 9: Test-F Result

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,017	3	,006	8,506	,000[b]
	Residual	,017	26	,001		
	Total	,034	29			

a. Dependent Variable: Y_NPM

b. Predictors: (Constant), X3_TATO, X1_QR, X2_ITO

The F table value in this study is Ftable = (α; n-k-1 or df2) = (0,05; 30-3-1) = (0,05; 26) = 2,975.
Based on Table 9, the F-test results show that the Fcount value of 8,506 is greater than 2,975 or (8,506 > 2,975) and the sig value is 0,000 < 0,05. Therefore, it can be concluded that Ho is rejected and Ha is accepted. This means that H4 quick ratio, inventory turnover, and total asset turnover simultaneously have a significant effect on net profit margin.

Discussion :
Based on the results of data analysis conducted by researchers indicating that there was no significant effect between the quick ratio and net profit margin in tobacco companies listed on the Indonesia Stock Exchange during the period 2015-2024. In theory, the quick ratio reflects a company's ability to meet its short-term obligations. This study shows that the quick ratio does not directly affect a company's net profit margin. According to signal theory, the quick ratio is usually considered a liquidity signal. However, this study shows that the quick ratio is not strong enough to directly influence a company's net profit margin. This means that the quick ratio is not a signal that can influence investor decisions or financial results. The results of this study support the findings of a study conducted by (Nikmah et al., 2024) on basic industry and chemical companies listed on the JII from 2016 to 2022, which stated that the quick ratio does not have a significant effect on net profit margin. On the other hand, the results of this study contradict the results of a study conducted by (Darmawan et al., 2023) on basic and chemical industry companies (Jakarta Islamic Index period 2016-2021), which stated that the quick ratio has a significant effect on net profit margin.

Based on the results of data analysis conducted by researchers indicating that there was no significant effect of inventory turnover on net profit margin in tobacco sub-sector companies listed on the Indonesia Stock Exchange during the period 2015-2024. This study shows that inventory turnover does not directly affect a company's net profit margin. According to signal theory, high inventory turnover, which is considered to sell products quickly, is a positive signal in terms of efficiency and market demand. However, this study shows that inventory turnover is not strong enough to directly affect a company's net profit margin. The results of this study support the findings of a study conducted by (Pitriani et al., 2024) on consumer goods companies listed on the Indonesia Stock Exchange during the period 2019-2021, which stated that inventory turnover had no significant effect on net profit margin. On the other hand, the results of this study contradict the results of a study conducted by (Wiwitanti et al., 2022) on companies in the pharmaceutical sub-sector listed on the Indonesia Stock Exchange during the period 2014-2018, which stated that inventory turnover had a positive and significant effect on net profit margin.

Based on the results of data analysis conducted by researchers indicating that there is a significant effect between total asset turnover and net profit margin in tobacco sub-sector companies listed on the Indonesia Stock Exchange for the period 2015-2024. In theory, total asset turnover reflects that the higher the utilization of assets to generate sales, the greater the net profit obtained. This study shows that total asset turnover has a direct impact on net profit margin. Based on signal theory, the results of this study support the level of asset operational efficiency, which is a strong signal for investors. Asset efficiency sends a positive signal to investors and creditors. Therefore, this signal can be accepted and recognized, thereby directly affecting net profit margins. Thus, this signaling theory is proven to be relevant and has a significant effect on net profit margins in this study. The results of this study support the findings of a study conducted by (Nuryani, 2023) on pharmaceutical companies in 2020, which stated that total asset turnover has a significant effect on net profit margin. On the other hand, the results of this study contradict the results of a study conducted by (Lumbantobing et al., 2023) on mining companies listed on the

Indonesia Stock Exchange for the period 2017-2021, which stated that total asset turnover had no significant effect on net profit margin.

Based on the results of data analysis conducted by the researcher indicating that there is a significant effect between the quick ratio, inventory turnover, and total asset turnover on the net profit margin of tobacco companies listed on the Indonesia Stock Exchange during the period 2015-2024. The results of this study are supported by the coefficient of determination (R^2) test, which shows that the adjusted R-square is 0,437 or 43,7%. This means that the independent variables, namely quick ratio, inventory turnover, and total asset turnover, can explain the dependent variable, namely net profit margin, by 43,7%. The results of this study support the findings of a study conducted by (Nuryani, 2023) on pharmaceutical companies in 2020, which stated that inventory turnover, debt-to-equity ratio, and total asset turnover simultaneously have a significant effect on net profit margin. Similarly, the findings of (Nikmah et al., 2024) on basic and chemical industry companies listed on the JII from 2016 to 2022 show that the current ratio, quick ratio, and cash ratio simultaneously have a significant impact on net profit margin.

Conclusion

Based on the results of research and discussions conducted earlier on the effect of quick ratio, inventory turnover and total asset turnover on net profit margin in the tobacco subsector companies listed on the Indonesian stock exchange period 2015-2024, can be drawn some conclusions from the overall research results, namely: 1) partially quick ratio have no significant effect on net profit margin 2) partially inventory turnover have no significant effect on net profit margin 3) partially total asset turnover has a significant effect on net profit margin 4) Simultaneously Quick Ratio, Inventory Turnover and Total Asset Turnover have a significant effect on net profit margin. This conclusion is based on the results of hypothesis testing. In this study, the total asset turnover ratio proved to be a strong and reliable indicator in evaluating financial performance that is beneficial for investors and companies. Further research should use other variables to add variety and use other research samples to avoid only limited to tobacco companies.

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